

Project Evaluation Series

Terminal evaluation of the project “A New Green Line: Mainstreaming Biodiversity Conservation Objectives and Practices into China’s Water Resources Management Policy and Planning”

**Project code: GCP/CPR/057/GFF
GEF ID: 5665**

Required citation:

FAO. 2022. *Terminal evaluation of the project "A New Green Line: Mainstreaming Biodiversity Conservation Objectives and Practices into China's Water Resources Management Policy and Planning"*. Project Evaluation Series, MM/2022. Rome.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

ISBN

© FAO, 2022



Some rights reserved. This work is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo/legalcode>).

Under the terms of this licence, this work may be copied, redistributed and adapted for non-commercial purposes, provided that the work is appropriately cited. In any use of this work, there should be no suggestion that FAO endorses any specific organization, products or services. The use of the FAO logo is not permitted. If the work is adapted, then it must be licensed under the same or equivalent Creative Commons licence. If a translation of this work is created, it must include the following disclaimer along with the required citation: "This translation was not created by the Food and Agriculture Organization of the United Nations (FAO). FAO is not responsible for the content or accuracy of this translation. The original [Language] edition shall be the authoritative edition."

Disputes arising under the licence that cannot be settled amicably will be resolved by mediation and arbitration as described in Article 8 of the licence except as otherwise provided herein. The applicable mediation rules will be the mediation rules of the World Intellectual Property Organization <http://www.wipo.int/amc/en/mediation/rules> and any arbitration will be conducted in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

Third-party materials. Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

Sales, rights and licensing. FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through publications-sales@fao.org. Requests for commercial use should be submitted via: www.fao.org/contact-us/licence-request. Queries regarding rights and licensing should be submitted to: copyright@fao.org.

Cover photographs: ©

Abstract

This is the report for the terminal evaluation of the project “A New Green Line: Mainstreaming Biodiversity Conservation Objectives and Practices into China’s Water Resources Management Policy and Planning”, funded in China by the Global Environment Facility (GEF) and implemented by the Food and Agriculture Organization of the United Nations (FAO) using the Operational Partners Implementation Modality (OPIM). The Operational Partner was the Ministry of Water Resources (MWR). The primary audience and users of this evaluation are: project governance and implementation bodies; national Government counterparts; FAO divisions and regional offices; the GEF; and other donors, organizations and institutions.

The terminal evaluation was based around 39 evaluation questions and used four main sources of data: (i) desk reviews of all relevant documents and information; (ii) semi-structured interviews with project stakeholders; (iii) focus group discussions in a group setting; and (iv) field visits. Data were analysed to address the evaluation questions and ratings were assigned in accordance with GEF evaluation requirements.

The relevance of the project was Satisfactory, aligning strongly with GEF priorities and with China’s national priorities for an ecological civilization. Although the overall project strategy was well designed to meet the identified objectives, there were some shortcomings in project design that had adverse impacts on implementation.

Overall, the project rating was Satisfactory, progress towards the objective was Satisfactory, and most outcomes and outputs were achieved. Of the three projects components, Component 1 was Highly Satisfactory and Components 2 and 3 were Satisfactory. The contribution to changes to China’s policy/legal/regulatory framework under Component 1 was a highlight of the project.

The efficiency of the project was Satisfactory and this improved significantly after a slow start. The project was very cost effective. Sustainability of the project’s results is Likely. MWR effectively discharged its project management role and responsibilities and FAO effectively delivered oversight, supervision and backstopping during the second half, after shortcomings in the early years.

The project design contained no actions and only one target that addressed gender issues, and implementation and reporting had limited consideration of gender participation. Also, project design and implementation did not address any environmental or social safeguards and the project’s dated environmental and social impact assessments were not updated during implementation.

This project was one of the earliest to be implemented under FAO’s OPIM. Because there was little experience with negotiating OPAs under OPIM, the first Operational Partners Agreement had to be renegotiated, which caused a two-year delay to initiation. After this delay was overcome, OPIM was successfully applied and there were clear some benefits from the modality.

The report provides five Conclusions, eight Recommendations and four Lessons Learned. Recommendations are: replicating the activities and practices within the pilot provinces and in different provinces; finalizing the sustainability plan; ensuring that, for future projects, reporting and evidence clearly address targets and that reporting and evidence is prepared in a timely manner for MTRs and TEs; adopting a systematic and transparent approach to the regular reassessment of environmental and social impacts; establishing a bird monitoring system along Chuan River in Jingdong County; and sharing experiences and lessons learned in indirect project execution in China with other FAO country offices and teams.

Contents

Abstract	iii
Acknowledgements	vii
Abbreviations and acronyms	viii
Executive summary	ix
1. Introduction	1
1.1 Purpose of the evaluation	1
1.2 Intended users	1
1.3 Scope and objectives of the evaluation	1
1.4 Methodology.....	4
1.4.1 General.....	4
1.4.2 Data collection methods.....	4
1.4.3 Data collection	5
1.4.4 Data analysis	6
1.5 Limitations.....	6
1.6 Structure of the report.....	7
2. Background and context of the project	9
2.1 Theory of change.....	13
3. Findings	17
3.1 Relevance.....	17
3.2 Effectiveness	19
3.3 Efficiency	24
3.4 Sustainability.....	26
3.5 Factors affecting performance.....	29
3.5.1 Monitoring and evaluation system	30
3.5.2 Quality of implementation and execution	32
3.5.3 Financial management and mobilization of expected co-financing.....	34
3.5.4 Project partnerships and stakeholder engagement and ownership.....	35
3.5.5 Communication, knowledge management, and knowledge products.....	35
3.6 Cross-cutting concerns.....	37
3.6.1 Gender.....	37
3.6.2 Minority groups, including indigenous peoples, disadvantaged, vulnerable and people with disabilities, and youth	37
3.6.3 Environmental and social safeguards.....	38
4. Conclusions and recommendations	41
4.1 Conclusions.....	41
4.2 Recommendations	42
5. Lessons learned	46
References	49
Appendix 1. People interviewed	50
Appendix 2. GEF evaluation criteria rating table	54
Appendix 3. Rating scheme	57
Appendix 4. GEF co-financing table	59
Appendix 5. Results Matrix showing achievements	60
Appendix 6. Example of tool for semi-structured interview (SSI)	100

Appendix 7. Example of tool for focus group discussion (FGD) 102
Annexes 104

Boxes, figures and tables

Boxes

Box 1. Basic project information.....	9
---------------------------------------	---

Figures

Figure 1: Map of Yunnan Province showing location of Pu'er Municipality (City), pilot counties (pink and green areas) and pilot rivers (Chuan, Enle and Buma) (source: Project Management Office)	11
Figure 2: Map of Chongqing Municipality showing pilot rivers (red lines) and pilot counties (green and yellow areas) (source: Project Management Office)	12
Figure 3: Reconstructed Theory of Change for the project	15

Tables

Table 1. Evaluation questions by GEF criteria (from TE TOR).....	2
Table 2: Distribution of interviewees in four stakeholder categories and interview type (SSI: semi-structured interview, FGD: focus group discussion)	6
Table 3: Information on pilot rivers: length, watershed area, number of towns and townships, and approximate populations (source: Project Management Office, provincial status reports)	10
Table 4: Overview of GEF funding and co-financing commitments (source: Project Document).....	12
Table 5: Landscape/seascape area (ha) directly covered by the project, as reported in Part II Question 1 of the tracking tools at midterm and project closure.....	21
Table 6: The area of coverage (ha) of the management practices employed by project beneficiaries that integrate biodiversity considerations, as reported in Part III Question 4 of the tracking tools at midterm and project closure.....	21

Acknowledgements

The consultants, Adrian Stokes (international consultant) and Liu Shuo (national consultant), gratefully acknowledge the support provided by all stakeholders during this evaluation. Officials from the Ministry of Water Resources, the provincial departments of water resources and the county governments were very generous with their time. Their enthusiasm for and ownership of this project is a great asset to the project and increases the likelihood of China's aquatic biodiversity being protected and monitored into the future.

Thanks also to the village residents who shared their knowledge and experiences about living with the rivers and protecting their biodiversity.

The PMO was patient in responding to our many requests for more information and assisted with the logistics of the stakeholder interviews and mission.

This evaluation was supported by the FAO RAP, OED and China Country Office. Thank you also to other FAO staff who gave important contributions.

Abbreviations and acronyms

BD	Biodiversity
CPF	Country Programming Framework
E-flow	Environmental flow
EQ	Evaluation question
ESS	Environmental and Sustainability Screening
FAO	Food and Agriculture Organization
FGD	Focus group discussion
FYP	Five Year Plan
GEF	Global Environment Facility
INTCE	International Economic and Technical Cooperation and Exchange Centre
MARA	Ministry of Agriculture and Rural Affairs
MEE	Ministry of Ecology and Environment
MoF	Ministry of Finance
MWR	Ministry of Water Resources
MTR	Midterm Review
NBAP	National Biodiversity Action Plan
OP	Operational Partner
OPA	Operational Partners Agreement
OPIM	Operational Partners Implementation Modality
PIR	Project Implementation Review
PMO	Project Management Office
PPR	Project Progress Reports
PSC	Project Steering Committee
RHA	River and Lake Health Assessment
SMART	Specific, measurable, achievable, realistic and timebound
SSI	Semi-structured interview
TE	Terminal Evaluation
TNC	The Nature Conservancy
TOC	Theory of change
TOR	Terms of Reference
UNEG	United Nations Evaluation Group
WRM	Water resources management

Executive summary

Introduction

1. This is the report for the terminal evaluation of the project “A New Green Line: Mainstreaming Biodiversity Conservation Objectives and Practices into China’s Water Resources Management Policy and Planning”. This evaluation is a requirement of the Global Environment Facility (GEF) and the Food and Agriculture Organization of the United Nations (FAO) for project monitoring and reporting purposes. It was conducted for both accountability and learning purposes of the GEF, FAO, national executing partner and other participating institutions. It provides a comprehensive and systematic account of the performance of the project by assessing its design, implementation, and achievement of objectives.
2. The primary audience and users of the evaluation are: (i) project governance and implementation bodies; (ii) national Government counterparts; (iii) FAO China; (iv) FAO HQ, technical division, FAO-GEF Coordination Unit, and FAO regional offices; (v) the GEF; (vi) other donors, organizations, and institutions interested in supporting and/or implementing similar projects.
3. The evaluation covers the entire project implementation period to the time of the TE (29 September 2016 to December 2022, noting that a project extension to 31 May 2023 was granted during the TE period), while focusing on the results that took place after the Midterm Review (MTR). The evaluation covers the four pilot sites in Yunnan Province and Chongqing Municipality where the Project has been implemented.
4. The objectives of the evaluation are to: examine achievement of objective and outcomes to date and the likelihood of future impacts; assess performance, gender-disaggregated achievements, and the implementation of planned project activities and planned outputs; understand the critical enablers and barriers for progress; identify project successes to promote replicability; and synthesize lessons learned. A list of 39 evaluation questions was provided at commencement, around which the evaluation was designed and conducted.
5. The evaluation was undertaken by a team of two: an international consultant and a national consultant. A mixed methods approach was used, involving multiple sources of data to inform the evaluation. The following four main data collection methods were used: (i) desk reviews of all relevant documents and information; (ii) semi-structured interviews (SSIs) with project stakeholders; (iii) focus group discussions (FGDs) with some stakeholders to draw out experiences in a group setting; and (iv) field visits. The SSIs, FGDs and site visits were conducted between 19 August and 22 September 2022, including a field mission by the national consultant between 29 August and 2 September. The international consultant could not visit China due to COVID-19 restrictions; also, no site visits could be made to Chongqing because of COVID-19. Data analysis was conducted to address the evaluation questions and ratings were assigned to some performance dimensions, in accordance with the GEF evaluation requirements.

Main findings

6. The main findings are presented below; please see the main body of the report for detail on evidence and justifications for the findings. The information in parentheses after each finding indicates which evaluation question (EQ) is addressed (see Table 1 in the main body of the report), if any. They are arranged under the GEF evaluation criteria.

RELEVANCE

Finding 1. The project was highly relevant to China's national priorities and this relevance remains high (EQ 1.1, 1.2).

Finding 2. The project was congruent with GEF-5 programme strategies at the time of design (EQ 1.1, 1.2).

Finding 3. The project had some congruence with the FAO Country Programming Framework (EQ 1.1, 1.2).

Finding 4. The project was developed with attention to the needs of local communities and remains relevant to local beneficiaries (EQ 1.1).

Finding 5. The project design had a high level of complementarity with existing policies, activities and other GEF projects within China, although there was limited complementarity during implementation with other external donor projects; some complementarity in protection of shared river basins was developed with international stakeholders (EQ 3.4).

EFFECTIVENESS

Finding 6. The project made a very good contribution to the objective to mainstream biodiversity conservation objectives and practices into China's water resources management policy and planning (EQ 2.1, 9.1).

Finding 7. The project made a significant contribution to the effective generation and processing of advanced information on river biodiversity and its conservation in the four pilot sites (EQ 2.2).

Finding 8. The GEF tracking tools reported positive achievements although they were completed late and did not provide explanations of calculation methods for quantitative measures.

Finding 9. The opportunity to link the project with the implementation of the River and Lake Chief System was a positive unintended result (EQ 2.3).

Finding 10. There are no significant barriers or risks that may prevent future progress towards and the achievement of the project's outcomes and objective (EQ 2.4).

Finding 11. The project has made good contributions towards long-term impact (EQ 9.1).

Finding 12. The project actively contributed to many changes to China's policy/legal/regulatory framework, which was a highlight of the project (EQ 9.2).

Finding 13. The project achieved additionality through its focus on biodiversity conservation in all activities (EQ 11.1).

EFFICIENCY

Finding 14. This project was one of the earliest to be implemented under FAO's Operational Partners Implementation Modality (OPIM), with the first Operational Partners Agreement for the project being developed in 2016 and subsequently revised in 2018, which caused a delay in initiation (EQ 3.2).

Finding 15. The institutional arrangements, partnerships in place and resources available contributed positively to the achievement of the project's results and objectives (EQ 3.1, 3.2).

Finding 16. Strong national leadership from MWR and effective partnerships mean that the project built complementarities and avoided duplication (EQ 3.4).

Finding 17. The Operational Partners Agreement was implemented efficiently (EQ 3.5).

Finding 18. The project was very cost effective, due to excellent co-financing and the active participation of the Operational Partner (EQ 3.3, 3.6, 5.10).

Finding 19. Some mechanisms were established to facilitate intra- and inter-institutional coordination and decision-making in areas of mutual interest, although some of these may not continue (EQ 3.7).

SUSTAINABILITY

Finding 20. The project's results are likely to be sustainable, given strong government ownership and the effective investments in biodiversity mainstreaming at multiple levels, improved partnerships, establishment of long-term monitoring, documentation of best practices, extensive training, and improved information systems; risks to sustainability arise from challenges with financing and the ongoing availability of technical support to stakeholders (EQ 4.1, 4.5).

Finding 21. The project established institutional arrangements and cross-sector partnerships that are likely to be sustainable (EQ 4.2).

Finding 22. Some replication and scaling up of results and experiences has already occurred within Yunnan and Chongqing, and significant opportunities exist to further replicate activities and practices within the two pilot provinces and in other provinces (EQ 4.3).

Finding 23. The OPIM modality ensured national ownership and, through that, increased the likelihood of the sustainability of project results (EQ 4.4).

FACTORS AFFECTING PERFORMANCE

Finding 24. The project design had some shortcomings that led to implementation challenges (EQ 5.1, 5.2).

Finding 25. The M&E plan at the point of project endorsement was generally practical and sufficient, although the M&E budget was high, the project's Results Matrix was large and confusing and there were no gender-disaggregated targets.

Finding 26. M&E was implemented in accordance with the M&E plan, although there were some shortcomings in the quality of reporting against indicators for the terminal evaluation and in the timely completion of the tracking tools and their use to track the project's progress.

Finding 27. The FAO effectively delivered oversight, supervision and backstopping during most of the project, although there were shortcomings in the early years (EQ 5.9, 5.11).

Finding 28. The MWR effectively discharged its role and responsibilities related to the management and administration of the project, including risk management (EQ 5.7).

Finding 29. The primary financial management challenges were caused by restrictions relating to the COVID-19 epidemic and only 82.6 percent of the GEF grant had been disbursed by 30 June 2022 (EQ 3.6, 5.10).

Finding 30. Actual co-financing significantly exceeded the sum committed and the national, provincial and county governments made critical contributions (EQ 5.10, 8.1, 8.2).

Finding 31. Stakeholder engagement was generally good (EQ 5.3, 5.4, 5.5, 5.6, 10.1).

Finding 32. Understanding among stakeholders of the project's aims, results and components was good and the project's communication and knowledge products have the potential to support the sustainability and scaling up of project results (EQ 10.1, 10.2).

CROSS-CUTTING DIMENSIONS

Finding 33. The project design contained no actions and only one target that addressed gender issues, and implementation and reporting had limited consideration of gender participation (EQ 7.1).

Finding 34. The project design contained no actions and only one target that considered the needs of ethnic minorities, and implementation and reporting had some consideration of ethnic minorities (EQ 6.1).

Finding 35. Project design and implementation did not address any environmental or social safeguards (EQ 6.1).

7. The following additional information is provided:

- i. **Stakeholders engagement** – A communication strategy was prepared in 2019 and revised in 2021. Generally, stakeholder engagement was effective and resulted in a high level of awareness of the GEF project and its aims, results and key messages. This included among stakeholders interviewed at the national, provincial, prefecture, county and village levels. Local communities were consulted during project design. The involvement of NGOs / CSOs was largely restricted to The Nature Conservancy, with domestic NGOs having little involvement.
- ii. **Gender** – This GEF-5 project did not undertake a gender analysis during design (as this was not required at the time), did not include any specific actions that addressed gender issues and included one non-quantitative target relating to gender. Some limited efforts were made to consider gender during project implementation: reporting on a small number of training events included gender-disaggregated attendance data and some training targeted women. A gender mainstreaming plan was not prepared during implementation.
- iii. **Knowledge management** – The project effectively compiled and disseminated information and best practices that were gained. A range of methods were used, including international and local workshops, a website, newsletters and bulletins, technical reports and publications, brochures, and training. These will be important in replicating the activities and practices within and beyond the two pilot provinces.

8. The following ratings are provided:

- i. progress towards achieving the project development objective(s): SATISFACTORY
The project made a very good contribution to the objective to mainstream biodiversity conservation objectives and practices into China's water resources management policy and planning.
- ii. overall progress on implementation: SATISFACTORY
The project's progress towards Component 1 was Highly Satisfactory and progress towards Components 2 and 3 was Satisfactory, with all outcomes met and, of the 45 outputs, 40 achieved and five partially achieved.
- iii. overall risk rating: LOW
The project risk rating was assessed as "Medium to Low" in the Project Document and subsequently confirmed as Low during implementation in regular Project Implementation Reports (PIRs) and Project Progress Reports (PPRs).

Conclusions

9. The conclusions are provided below; please see the main body of the report for detail on evidence and justifications for the conclusions:

Conclusion 1. The activities and trials in the pilot rivers contributed to long-term positive impacts on river health, management and monitoring for approximately one million people in 18 towns and townships along 304 km of river with a total watershed area of nearly 5,000 km².

Conclusion 2. The project completed a comprehensive and high-quality process of mainstreaming biodiversity into key water resources policy, regulations and legal stipulations at national, provincial, prefectural and county levels.

Conclusion 3. The project has learned valuable lessons and developed practices that should be replicated in other provinces.

Conclusion 4. Most of the project's results are likely to continue after project completion, although there are risks to sustainability from the ongoing availability of technical biodiversity support to stakeholders and programmes.

Conclusion 5. Although the project had a high level of achievement, the reporting for the terminal evaluation had shortcomings and the evaluation team found it difficult to clearly assess evidence and understand the progress against each indicator and component.

Recommendations

10. The recommendations are provided below:

Recommendation 1. Replicate the activities and practices developed in the project in other counties and rivers in the pilot provinces (Yunnan and Chongqing) to improve the results achieved under this project. (MWR, Yunnan Department of Water Resources, Chongqing Department of Water Resources)

Recommendation 2. Replicate the activities and practices developed in the project in other provinces, using approaches designed for the relevant provinces' situations and needs. (MWR)

Recommendation 3. Revise the project's sustainability plan to identify how replication of activities and practices within and beyond the pilot provinces should be progressed, document how sustainability challenges relating to financing and technical support will be addressed, and indicate FAO's role in implementation of the plan. (PMO, MWR, FAO)

Recommendation 4. For future projects, ensure that project reporting and evidence clearly address a project's targets and indicators to ensure accountability and maximize transparency for project donors. (MWR, FAO).

Recommendation 5. For future projects, prepare comprehensive and concise reporting and evidence against each target (including documents, data, tracking tools and other information) in a timely manner for MTRs and TEs. (MWR, FAO)

Recommendation 6. For future projects, adopt a systematic and transparent approach to the regular reassessment of environmental and social impacts to ensure that projects do not continue to operate according to assessments that are dated and do not meet current expectations. (FAO, PMOs)

Recommendation 7. Establish a bird monitoring system along Chuan River in Jingdong County, Yunnan Province. (PMO)

Recommendation 8. Share experiences and lessons learned in indirect project execution in China with other FAO country offices and teams that are planning and implementing OPIM projects. (FAO CO)

GEF evaluation criteria rating table

GEF criteria/sub-criteria	Rating ¹	Summary comments
A. STRATEGIC RELEVANCE		
A1. Overall strategic relevance	S	
A1.1. Alignment with GEF and FAO strategic priorities	S	The project aligned with GEF and FAO strategic priorities at the time of design and at completion.
A1.2. Relevance to national, regional and global priorities and beneficiary needs	HS	The project was highly relevant to national, regional and global priorities.
A1.3. Complementarity with existing interventions	MS	The project design was based on detailed analysis of current knowledge and sought synergies with other GEF projects in China; during implementation, there was little complementarity with other external donor projects, although some complementarity in protection of shared river basins was developed with international stakeholders.
B. EFFECTIVENESS		
B1. Overall assessment of project results	S	
B1.1 Delivery of project outputs	S	The project delivered most outputs and met most associated indicators.
B1.2 Progress towards outcomes and project objectives		
- Objective	S	The project made very good progress towards the objective.
- Component I	HS	The project was highly successful at changing the institutional and planning framework for mainstreaming biodiversity into water resources management at national, provincial and local levels. This is rated HS because there were no shortcomings and the complex work was completed to a high standard.
- Component II	S	The project effectively demonstrated on-the-ground biodiversity activities in pilot rivers and contributed to implementation of the River and Lake Chief System in the pilot locations.
- Component III	S	The project successfully improved knowledge and information systems on river biodiversity, including monitoring systems and GIS databases, and provided extensive training to many stakeholders.
- Overall rating of progress towards achieving objectives/outcomes	S	
B1.3 Likelihood of impact	S	The project's investments in biodiversity mainstreaming at multiple levels, improved partnerships, long-term monitoring, documentation of best practices, extensive training, and improved information systems mean that impacts are likely.
C. EFFICIENCY		
C1. Efficiency	S	The project was very cost effective and delivered efficiently after delays during the first two years.
D. SUSTAINABILITY OF PROJECT OUTCOMES		

¹ See rating scheme in Appendix 3.

GEF criteria/sub-criteria	Rating ¹	Summary comments
D1. Overall likelihood of risks to sustainability	L	The project's interventions have been well targeted on biodiversity mainstreaming at multiple levels, improved partnerships, establishment of long-term monitoring, documentation of best practices, extensive training, and improved information systems; risks to sustainability arise from challenges with financing and the ongoing availability of technical support to stakeholders and programmes.
D1.1. Financial risks	ML	There is regular financing but there are risks with the appropriate allocation of that financing; also, there will be demands to enhance financing for infrastructure (including data and M&E systems) at the provincial level.
D1.2. Socio-political risks	L	The project is very consistent with national political priorities, therefore it has strong support at all levels of government. There is some risk that county, township and village stakeholders may not continue to consider biodiversity if the provision of technical awareness raising and training does not continue.
D1.3. Institutional and governance risks	L	The River and Lake Chief System is a positive fundamental institutional and governance reform and this will continue as a central government priority and, therefore, as a priority for all levels of government.
D1.4. Environmental risks	L	There are no significant environmental risks to the sustainability of project results.
D2. Catalysis and replication	S	The project components that involved replication have been effectively delivered; there has also been some additional catalysis and replication within the pilot provinces, such as in the application of the River and Lake Health Assessment and biodiversity monitoring in other rivers.
E. FACTORS AFFECTING PERFORMANCE		
E1. Project design and readiness	MS	The project was developed in consideration of national priorities and added significant value to government reform processes; however, there were some shortcomings in the design and the Results Matrix.
E2. Quality of project implementation	S	
E2.1 Quality of project implementation by FAO (BH, LTO, PTF, etc.)	S	The FAO effectively delivered oversight, supervision and backstopping during most of the project, although there were shortcomings in the early years.
E2.1 Project oversight (PSC, project working group, etc.)	S	Project oversight has been strong after shortcomings in the early years.
E3. Quality of project execution by MWR	S	The MWR effectively discharged its role and responsibilities related to the management and administration of the project.
E4. Financial management and co-financing	S	Actual co-financing significantly exceeded the sum committed and the national, provincial and county governments made critical contributions. Only 82.6% of GEF funds were expended by 30 June 2022.
E5. Project partnerships and stakeholder engagement	S	The project developed strong partnerships, especially through implementation of the River and Lake Chief System and with universities and other

GEF criteria/sub-criteria	Rating ¹	Summary comments
		institutes; only one university in each province was prominently involved and partnerships with domestic NGOs and CSOs were limited.
E6. Communication, knowledge management and knowledge products	S	Stakeholder engagement was generally effective and resulted in a high level of awareness of the GEF project and its aims; a communication strategy was developed in 2019 and revised in 2021.
E7. Overall quality of M&E	MS	
E7.1 M&E design	MS	The M&E plan at project endorsement was generally practical and sufficient, although the M&E budget was high, the Results Matrix was large and confusing and there were no gender-disaggregated targets.
E7.2 M&E implementation plan (including financial and human resources)	MS	M&E was implemented in accordance with the M&E plan, although there were shortcomings in the quality of reporting against indicators and in the timely completion of the tracking tools and their use to track the project's progress.
E8. Overall assessment of factors affecting performance	S	
F. CROSS-CUTTING CONCERNS		
F1. Gender and other equity dimensions	MS	The project design contained no actions and only one non-quantitative target that addressed gender issues; implementation and reporting had some consideration of gender participation.
F2. Human rights issues/Indigenous peoples	MS	The project design contained no actions and only one target that considered the needs of ethnic minorities and the Environmental and Sustainability Screening (ESS) checklist had shortcomings regarding ethnic minorities; implementation and reporting had some consideration of ethnic minorities.
F2. Environmental and social safeguards	MS	There were no relevant actions or safeguards in the project because it was assessed during design as being unlikely to have adverse environmental or social impacts.
Overall project rating	S	

1. Introduction

1.1 Purpose of the evaluation

1. As stated in the Terms of Reference (TOR) for this Terminal Evaluation (TE), the TE is a requirement of the Global Environment Facility (GEF) and the Food and Agriculture Organization of the United Nations (FAO) for project monitoring and reporting purposes. It was conducted for both accountability and learning purposes of the GEF, FAO, national executing partner, and other participating institutions.
2. The TOR also stated that the TE would “document important lessons to guide future actions and ... serve as an input to improve the formulation and implementation of projects that may use similar approaches” and “present strategic recommendations to maximize implementation in the remaining period of the Project, aid its institutionalization and appropriation of the Project’s results by the government stakeholders such as the two government implementing partners, and disseminate information to authorities that could benefit from it”.
3. Under the GEF’s TE guidelines (see Section 1.4 Methodology), the TE is expected to “provide a comprehensive and systematic account of the performance of [the project] by assessing its design, implementation, and achievement of objectives” and to “promote accountability and transparency; facilitate synthesis of lessons; provide feedback to allow the GEF IEO [Independent Evaluation Office] to identify issues that are recurrent across the GEF portfolio; and, contribute to GEF IEO databases for aggregation and analysis”.

1.2 Intended users

4. In accordance with the TOR, the primary audience and users of the evaluation are: (i) project governance and implementation bodies – the Project Management Office (PMO), the Project Steering Committee (PSC), the Project Task Force (PTF), FAO-China (FAO-CN) and the FAO-GEF Coordination Unit in FAO (GCU) – will use the findings and lessons identified to finalize project activities, plan for sustainability of results achieved, and improve the formulation and implementation of similar projects; (ii) national Government counterparts, such as the Ministry of Water Resources (MWR), Ministry of Ecology and Environment (MEE), Ministry of Finance (MoF) and Ministry of Agriculture and Rural Affairs (MARA), will use the evaluation findings and conclusions for future planning; (iii) FAO Headquarters and FAO Regional Office will use the findings and lessons learned to improve the project’s activities, plan for sustainability of the results achieved and improve the formulation and implementation of similar projects; (v) the GEF will use the findings to inform future strategic investment decisions; (vi) other donors, organizations, and institutions interested in supporting and/or implementing similar projects, such as The Nature Conservancy (TNC), are also likely to benefit from the findings.
5. These users were included in the stakeholder analysis and interviewee selection that was undertaken as part of the inception report, prepared during the planning phase of the TE in June 2022 and during interview planning in August and September 2022.

1.3 Scope and objectives of the evaluation

6. This TE is evaluating the project “A New Green Line: Mainstreaming Biodiversity Conservation Objectives and Practices into China’s Water Resources Management Policy and Planning”. In accordance with the TOR, the TE covered the entire project implementation period to the time of

the TE (29 September 2016 to December 2022, noting that a project extension to 31 May 2023 was granted during the TE period), while focusing on the results that took place after the Midterm Review (MTR). Also in accordance with the TOR, this TE considers the findings, conclusions, and recommendations of the MTR and validates them where necessary and covers the four pilot sites in Yunnan Province and Chongqing Municipality where the Project has been implemented.

7. In accordance with the TOR, the objectives of this TE are to:
- Examine the extent and magnitude of the Project achieving its stated objective and outcomes to date, and determine the likelihood of future impacts especially relating to environmental sustainability due to changes following the Project’s interventions;
 - Provide an assessment of the Project’s performance, gender-disaggregated achievements, and the implementation of planned project activities and planned outputs against actual results;
 - Understand the critical enablers for progress and the barriers to progress for the project components and activities;
 - Identify project successes to promote replicability; and
 - Synthesize lessons learned that may help in the design and implementation of future FAO and FAO-GEF water management and/or river biodiversity conservation-related initiatives.
8. A list of 39 evaluation questions was provided in the TOR, around which the evaluation was conducted and this report is structured; these are provided in Table 1.

Table 1. Evaluation questions by GEF criteria (from TE TOR)

<p>1. Relevance</p> <p>1.1 Were the project outcomes congruent with the GEF programme strategies (i.e. on Biodiversity), priorities of China and the FAO Country Programming Framework? Have the project’s objectives been in line with the needs of the local communities located at the project sites?</p> <p>1.2 Has there been any change in the Project’s relevance since the MTR?</p>
<p>2. Effectiveness - achievement of project results</p> <p>2.1 To what extent has the project objective to <i>mainstream biodiversity conservation objectives and practices into China’s water resources management policy and planning</i> been achieved? In answering this question, the Terminal Evaluation will assess achievements against each project outcome and main outputs.</p> <p>2.2 How far has the project contributed to the effective generation and processing of advanced information on river biodiversity and its conservation in the four pilot sites?</p> <p>2.3 Did the Project produce any unintended results, either positive or negative?</p> <p>2.4 Are there any barriers or other risks that may prevent future progress towards and the achievement of the project’s outcomes and objectives?</p>
<p>3. Efficiency</p> <p>3.1 How did the project activities, the institutional arrangements (FAO execution), the partnerships in place and the resources available contribute to, or impede, the achievement of the Project’s results and objectives?</p> <p>3.2 To what extent has project’s implementation mechanism contributed to efficient implementation of main outputs (FAO as GEF implementing agency)?</p> <p>3.3 Is the co-financing being made available to the project as planned to contribute to meeting project outputs, outcomes and objectives?</p> <p>3.4 To what extent has the project built on synergies and complementarities with other projects, partnerships, etc. and avoided duplication of similar activities by other groups and initiatives?</p> <p>3.5 Has the Operational Partners Agreement been applied efficiently?</p>

<p>3.6 Has the project been implemented efficiently, cost effectively, and management been able to adapt to any changing conditions (COVID-19) to improve the efficiency of project implementation? How well have risks been identified and managed?</p> <p>3.7 Has the project established a mechanism to facilitate greater intra and inter-institutional coordination and decision-making in areas of mutual interest at all levels? <i>(See MTR Recommendation 2)</i></p>
<p>4. Sustainability</p> <p>4.1 What is the likelihood of the project’s sustainability?</p> <p>4.2 Has the project established sustainable institutional arrangements or cross-sector partnerships?</p> <p>4.3 What project results, lessons or experiences have been replicated (in different geographic areas) or scaled up (in the same geographic area, but on a much larger scale and funded by other sources)? What results, lessons or experiences are likely to be replicated or scaled up in the near future?</p> <p>4.4 Did the OPIM contribute to ensure major ownership and sustainability of the project results? Did the OPIM contribute to increase national, regional and sub-regional ownership to support better sustainability of results? And to strengthen capacities of regional, sub-regional and/or national entities?</p> <p>4.5 The evaluation will analyse the reasons leading to increase or decrease in this likelihood, including the key risks (financial, socio-political, institutional, environmental) which may affect sustainability.</p>
<p>5. Factors affecting performance:</p> <p>5.1 Is the project design suited to delivering the expected outcomes?</p> <p>5.2 Is the project’s causal logic (objectives and expected outcomes) coherent and clear, practical and feasible within the timeframe allowed?</p> <p>5.3 How do the various stakeholder groups see their own engagement with the project and what are the strengths and challenges of the project’s partnerships?</p> <p>5.4 Were local actors – civil society or private sector – involved in project design or implementation and what was the effect on project results?</p> <p>5.5 Did the Project include a stakeholder engagement strategy? How effectively and continuously has it been able to engage the relevant Project stakeholders?</p> <p>5.6 Does the Terminal Evaluation have any recommendations to increase engagement with any of these stakeholders?</p> <p>5.7 Are there sufficient human resources, financial resources, etc. for the PMO operation and does it have the capacity to support project implementation?</p> <p>5.8 What have been the main challenges in terms of project management and administration?</p> <p>5.9 How well have risks been identified and managed?</p> <p>5.10 What have been the financial management challenges of the project? To what extent has pledged co-financing been delivered? Has any additional leveraged co-financing been provided since implementation?</p> <p>5.11 To what extent has FAO delivered oversight and supervision and backstopping (technical, administrative and operational) during project identification, formulation, approval, start-up and execution? What kind of support or changes is expected from FAO by the execution partners? How effective has the project’s internal M&E system been in supporting project planning and the development of a communication strategy to inform and promoting its key messages and results to partners, stakeholders and a general audience?</p>
<p>6. Environmental and social safeguards</p> <p>6.1 To what extent were environmental and social concerns taken into consideration in the design of the project, and were these reflected on and adapted as necessary during implementation?</p>
<p>7. Gender and other cross-cutting concerns</p> <p>7.1 To what extent were gender considerations taken into account in designing, implementing, monitoring and reporting of the project? Was the project implemented in a manner that ensures gender equitable participation and benefits?</p>
<p>8. Co-financing</p> <p>8.1 The MTR constituted that the co-financing delivery is on track, where the MWR has provided over 60% of the planned co-finance in the form of cash and in kind at the mid-term. How has this situation changed thereafter, concerning both in-kind and cash contributions from each of the co-financing partners?</p> <p>8.2 Which factors either enabled or hindered materialization of the planned co-financing? What conclusions for future FAO-GEF projects can be gained from these insights?</p>

<p>9. Progress to impact</p> <p>9.1 To what extent can the progress towards long-term impact be attributed to the project? Namely, as a result of the Project, is there evidence that there are a) improved legal frameworks for water and biodiversity management; c) modern approaches to sustainable water and biodiversity management; d) increased capacities inside the relevant local institutions?</p> <p>9.2 To what changes in the policy/legal/regulatory framework has this project actively contributed to (working together with its national partners)?</p> <p>9.3 What barriers or other risks could prevent future progress towards long-term impact?</p>
<p>10. Knowledge management</p> <p>10.1 How effective has the communication of project aims, progress, results and key messages been, along with any structured lesson, knowledge product and experience-sharing between project partners and interested groups?</p> <p>10.2 To what extent are communication and knowledge products and activities likely to support the sustainability and scaling up of project results?</p>
<p>11. Additionality</p> <p>11.1 What can be concluded on the added value of project interventions compared to comparable alternatives?</p>

1.4 Methodology

1.4.1 General

9. This Terminal Evaluation adhered to the United Nations Evaluation Group (UNEG) Norms and Standards for Evaluation (2016) and follows both the FAO OED Project Evaluation Manual 2019 ("OED Project Evaluation Manual" hereafter) and the GEF Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects (2017) and associated methodological guidelines and practices. For assessing the implementation modality of the project, reference was made to the FAO internal document "Preliminary set of questions for projects where selected project results' implementation was delegated to Operational Partners (OPs)".
10. The evaluation was undertaken by a two-person evaluation team comprising an international consultant and team leader (Adrian Stokes) and a national consultant (Liu Shuo).
11. During the design and preparation phase of the evaluation, an inception report was prepared in accordance with the guidance in Annex 10 of the OED Project Evaluation Manual. This included:
 - a stakeholder analysis, including who would be involved, why they will be involved and how their involvement will contribute to the credibility of the evaluation and the results;
 - an evaluation methodology, giving detailed information on the approaches to be used and the methods selected for data collection; and
 - an evaluation matrix, which set out how the methodology would be operationalized by the evaluation team, presented the specific evaluation questions/indicators under each evaluation question (see Table 1) and identified the sources for data collection.

1.4.2 Data collection methods

12. The methodology involved multiple sources of data to inform the evaluation, to ensure the collection of evidence-based information that is credible, reliable and useful. A mixed methods approach was used, adopting a combination of qualitative and quantitative evaluation methods and instruments.

-
13. The four main data collection methods were:
- Desk reviews: the evaluation was underpinned by a desk review of all relevant documents and information covering project design, implementation progress, and monitoring and review; this included quantitative components (assessing project reporting and analysing and summarizing other data sources, such as consultant reports) and qualitative components (note taking to summarize and analyse); a key part of the desk review was analysis of the project M&E, from design to implementation and project close.
 - Semi-structured interviews (SSIs) with project stakeholders were held; the international consultant attended these via videoconferencing and the national consultant attended these in person if feasible and appropriate from a COVID-19 perspective (see Section 1.5 'Limitations').
 - Focus group discussions (FGDs) were held for some stakeholders to draw out experiences in a group setting. These were appropriate for beneficiaries at project sites and were planned carefully to be sensitive to specific settings and circumstances.
 - Field visits were undertaken where possible by the national consultant to obtain a first-hand understanding of project activities and achievements and to connect with beneficiaries. SSIs and FGDs with beneficiaries and other stakeholders were conducted during the field visits.
14. During the design and preparation phase, tools were developed for the SSIs and FGDs, tailored to different stakeholder groups, to ensure standardized collection of data that addressed the evaluation questions. A sample SSI tool and FGD tool are provided in Appendices 6 and 7.
15. As part of the stakeholder analysis in the inception report, key informants were identified in the following categories:
- i. Active stakeholders with decision-making authority (including stakeholders from the PSC, national PMO and FAO);
 - ii. Active stakeholders with direct responsibility (including stakeholders from the national and provincial PMOs, FAO, TNC and other partner groups);
 - iii. Project beneficiaries (including villages from pilot sites); and
 - iv. Secondary stakeholders (including universities, other third party / consulting institutions, other involved bureaus, and FAO staff).

1.4.3 Data collection

16. The SSIs, FGDs and site visits were conducted between 19 August and 22 September 2022, including a field mission to Yunnan pilot sites by the national consultant between 29 August and 2 September. The mission was undertaken in accordance with all requirements and protocols relating to COVID-19. No visit to the Chongqing pilot sites were undertaken, due to COVID-19 restrictions. The international consultant was not in China for the interviews or mission.
17. In total, 67 stakeholders participated in SSIs and FGDs and contributed to the collection of evidence addressing the evaluation questions. The list of people interviewed is provided in Appendix 1 and the breakdown of the interviews into the four stakeholder categories is shown in Table 2.

Table 2: Distribution of interviewees in four stakeholder categories and interview type (SSI: semi-structured interview, FGD: focus group discussion)

Stakeholder category	SSI	FGD	Subtotal
i. Active stakeholders with decision-making authority	8	0	8
ii. Active stakeholders with direct responsibility	18	0	18
iii. Project beneficiaries	2	7	9
iv. Secondary stakeholders	32	0	32
Total	60	7	67

18. The desk review commenced during the design and preparation phase and continued to the finalization of the first draft of this report, as additional documents, data and other evidence continued to be received.
19. In addition to considering restrictions due to COVID-19, the following criteria were used to select sites to visit in Yunnan: 1) breadth and progress of project activities; 2) accessibility (time, geography, resources available); 3) project performance (both well-performing and under-performing areas as identified via preliminary assessment by the evaluation team). Note that no sites were visited during the MTR in 2020 (because of COVID-19 constraints), therefore revisiting MTR sites was not a factor in choosing TE sites.
20. Site visits were made to the following key project sites:
 - i. Chuan, Buma and Enle Rivers in Pu'er Municipality, which were selected because they are the project's pilot rivers in Yunnan Province; various activities were viewed on these pilot rivers and interviews were conducted with stakeholders with active direct involvement in the project.
 - ii. Zhenyuan County and Jingdong County in Pu'er Municipality, Yunnan Province, which are the Yunnan counties in which the pilot rivers occur; interviews were held with various stakeholders, including government and villagers.

1.4.4 Data analysis

21. Data analysis was conducted after completion of the interviews and mission, to address the evaluation questions as detailed in the evaluation matrix. Ratings were assigned to some dimensions of project performance, in accordance with the GEF evaluation requirements (see Appendix 3).
22. Where possible, evidence was triangulated by assessing the relevant evidence collected by at least two methods, to verify findings and build a richer narrative of the results.
23. A debrief session was held on 30 September 2022, at which preliminary findings were presented and discussed with stakeholders from the PMO, MWR and FAO.

1.5 Limitations

24. The primary limitation was that the international consultant was not present in China, due to COVID-19 restrictions, which meant that there was no first-hand opportunity to understand the project in the field, assess results and develop face-to-face relationships with stakeholders. To mitigate this limitation, the national consultant collected photos and videos and debriefed with

the international consultant after site visits and SSIs that the international consultant could not attend remotely; this ensured that evidence was collected to inform the analysis and enable triangulation. Nevertheless, this lack of first-hand engagement by the international consultant with the project and stakeholders remains a fundamental limitation. Similarly, because neither member of the evaluation team could visit the Chongqing pilot sites, there was limited understanding of those pilot sites and activities.

25. As described under Finding 26 of this report, the evaluation team experienced shortcomings in the provision of documents, data and analysis as evidence to clearly support the achievements that were reported by the project. For many indicators, evidence was not received and interpreted by the evaluation team until late in the evaluation period; for many of the documents, this was due to strict controls on the release of electronic documents. This imposed limitations because the evaluation team did not have a sound understanding of the project's deliverables, achievements and challenges during the time of stakeholder interviews, which affected the value derived from those interviews. Extensive follow-up was required after the interviews to understand and clarify the reporting and evidence.
26. These limitations with reporting and provision of evidence were further compounded by the size and complexity of the project's Results Matrix, against which it was difficult to assess progress.

1.6 Structure of the report

27. Following this introduction, section 2 presents the background and context of the project; section 3 presents the main findings for each evaluation question; section 4 provides conclusions and recommendations; and section 5 lists lessons learned.
28. The report is accompanied by seven appendices: Appendix 1 – People interviewed; Appendix 2 – GEF evaluation criteria rating table; Appendix 3 – Rating scheme; Appendix 4 – GEF co-financing table; Appendix 5 – Results Matrix showing achievements; Appendices 6 and 7 – examples of the tools used during interviews and discussions.
29. The report is also accompanied by the following annex:

Annex 1. Terms of reference for the evaluation

2. Background and context of the project

Box 1. Basic project information

- GEF Project ID Number: 5665
- Recipient country: China
- Implementing Agency: FAO
- Operational Partner: International Economic and Technical Cooperation and Exchange Centre (INTCE) of the Ministry of Water Resources (MWR), The Nature Conservancy (TNC)
- CEO endorsement date: 1 December 2015
- Date of project start: 29 September 2016
- Initial date of expected end: 31 May 2020
- Revised date of expected end: 31 May 2023
- Date of Midterm Review: completed November 2020

30. This project has been funded by the Global Environment Facility (GEF) with a grant of USD 2,639,726. The Food and Agriculture Organization (FAO) was the project's Implementing Agency and the International Economic and Technical Cooperation and Exchange Centre (INTCE) of the Ministry of Water Resources (MWR) was the Operational Partner (OP). The Nature Conservancy (TNC), an international non-profit civil society organization (CSO) with activities and an office in China, was also identified as an Executing Partner in the Project Document.
31. China has rich surface water resources, however these are under stress: China has 20 percent of the world's population but only around 7 percent of the world's freshwater resources. This, combined with the dramatic increase in water-intensive industries, river infrastructures that block or modify environmental flow, the expansion of intensified agriculture, and excessive water pollution due to the unregulated discharge of wastewater, has caused medium to high water stress in China.
32. Freshwater scarcity and pollution threaten the long-term sustainability of key sectors such as agricultural production and productivity and, therefore, food security and nutrition.
33. This project was designed to respond to this growing problem of water stress in China. The project also responds to the State Council's Decisions on Strict Water Resources Management (2012), which established "Three Red Lines" on water resource management as follows:
- Red Line 1: Limit total water use by strict demand management
Red Line 2: Achieve higher water use efficiency in industry and agriculture
Red Line 3: Improve water quality by capping pollution loading within water functional zones.
34. This "Three Red Lines" system is contributing to environmental conservation and protection in China's water bodies. However, the Project Document identified that it did not systematically include the protection of biodiversity in river ecosystems and did not focus on river flow regimes and the environmental impacts of flow alterations by infrastructure. To respond to this, this project proposed a "New Green Line" to improve focus on river biodiversity and to link aquatic biodiversity to existing environmental protection.
35. The project's specific objective is to "mainstream biodiversity conservation objectives and practices into China's water resources management policy and planning".

36. To achieve the objectives, the project includes three components, each with several associated outcomes and outputs:

Component I: “Changing the framework” - Institutional and planning framework for mainstreaming biodiversity into water resources management at national, provincial, and local levels

Component II: “Enhancing Implementation” - Demonstrate on-the-ground activities for mainstreaming biodiversity in pilot rivers in Chongqing and Yunnan Provinces

Component III: “Improving Information” - Creation of improved information systems and capability to use these systems to inform better and continuously improving water management practices serving enhanced conservation of river biodiversity.

37. The project implemented activities at several levels:

- National level
- Provincial level, in Yunnan Province and Chongqing Municipality (a provincial-level municipality)
- Prefecture level, in Pu'er Prefecture in Yunnan
- County/district level
- In pilot rivers (two located in Yunnan and two located in Chongqing).

38. Figures 1 and 2 show the pilot locations in Yunnan and Chongqing respectively.

39. The project’s on-ground activities delivered benefits to approximately one million people living in 18 towns and townships along over 300 km of river with a total estimated watershed area of 4,852 km² (Table 3). The highest population densities are in Chongqing.

Table 3: Information on pilot rivers: length, watershed area, number of towns and townships, and approximate populations (source: Project Management Office, provincial status reports)

Pilot river	Length (km)	Watershed area (km ²)	No. towns / townships	Approx. population
Yunnan				
Chuan River	124.0	2,957	4	190,000
Enle and Buma Rivers	64.4	940	1	40,000
Chongqing				
Wubu River	84.4	774	9	500,000
Tang River	31.0	181	4	280,000
Total	303.8	4,852	18	1,010,000



Figure 1: Map of Yunnan Province showing location of Pu'er Municipality (City), pilot counties (pink and green areas) and pilot rivers (Chuan, Enle and Buma) (source: Project Management Office)

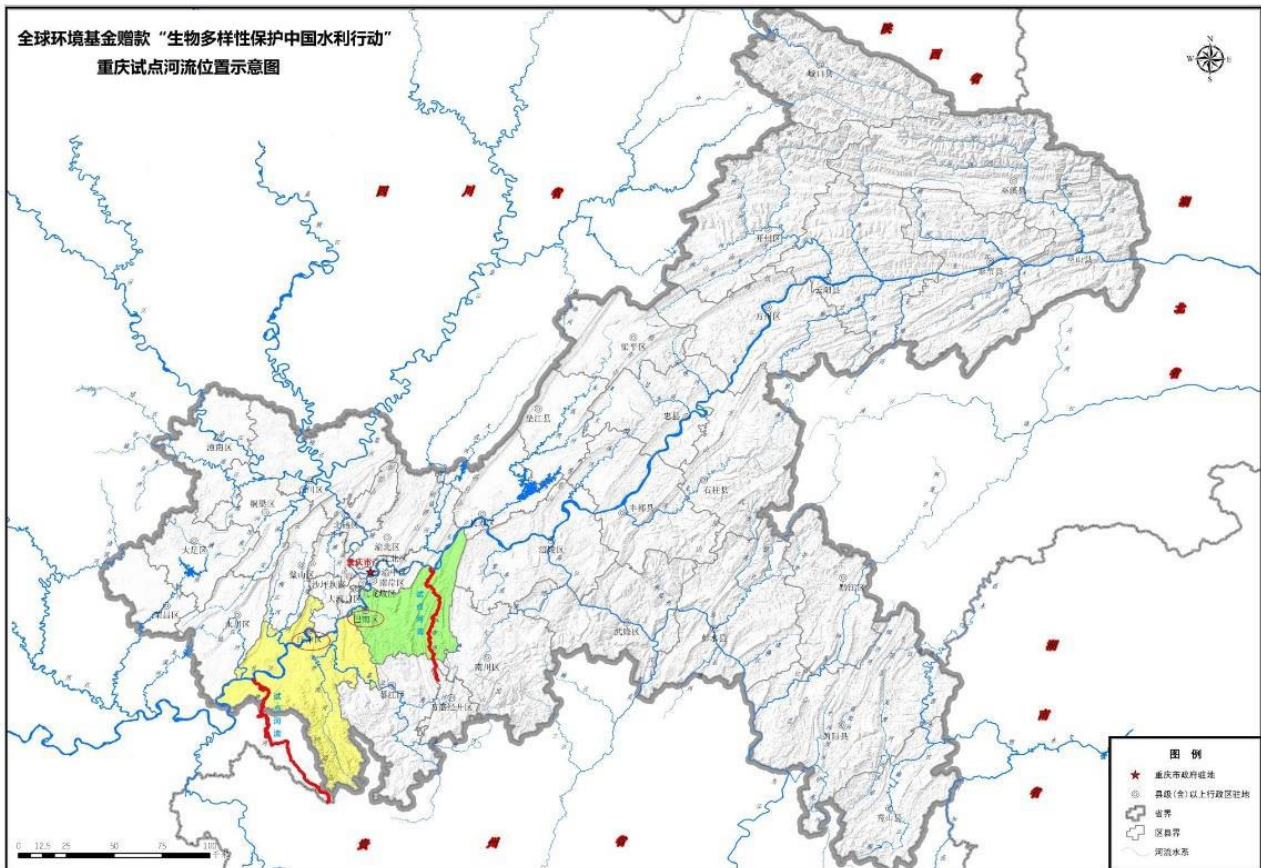


Figure 2: Map of Chongqing Municipality showing pilot rivers (red lines) and pilot counties (green and yellow areas) (source: Project Management Office)

40. The project was funded by a GEF grant of USD 2,639,726 and committed co-financing of USD 25,975,000, with a total budget of USD 28,614,726. The sources of funding are listed in Table 4 and the materialized co-financing has been verified as part of this TE.

Table 4: Overview of GEF funding and co-financing commitments (source: Project Document)

Funding source	Amount (USD)
Ministry of Water Resources	19,300,000
Yunnan Department of Water Resources	3,100,000
Chongqing Department of Water Resources	3,000,000
The Nature Conservancy	500,000
FAO	75,000
Total co-financing	25,975,000
Total GEF allocation	2,639,726
Total project budget	28,614,726

41. In addition to the co-financing partners listed in Table 4, other important partners included county and township governments at the pilot sites, villagers at the project sites, and various research institutions, consulting companies and expert individuals.

-
42. The target beneficiaries are national, provincial, municipal and county government stakeholders, and communities living in proximity to the pilot activities.
 43. The project timeline was changed three times: after the MTR a two-year extension was granted (to 31 May 2022) due to delays experienced in the first few years, and in 2022 two successive extensions were granted (initially to 5 September 2022 and then to 31 May 2023) due to difficulties associated with finalizing the project and expending the budget in the face of COVID-19 challenges. The final extension occurred after data collection for this TE had already commenced, which meant that the team was evaluating the project when it had more than six months before completion (which is not consistent with the OED Project Evaluation Manual or the GEF Guidelines, which recommend that TEs be conducted within six months of the actual completion date); the evaluation did not have input to the decision regarding this extension.
 44. There were no major changes to the project design during implementation (although some minor changes were made to the Results Matrix after the MTR) and no changes to the budget.

2.1 Theory of change

45. There was no theory of change (TOC) developed for the project in the design phase. During the MTR, the evaluators undertook a consultative process to develop a reconstructed TOC and, in response to MTR Recommendation 1, the Project Steering Committee (PSC) adopted this reconstructed TOC to “clarify the vision and mission of the project and its exit strategy”. Although this TOC from the MTR was valuable in clarifying the relationships between actions, outputs, outcomes and impacts, it did not include a situation analysis that led logically to interventions to achieve defined outcomes; therefore, another TOC was reconstructed by the TE evaluation team (Figure 3). The information in this reconstructed TOC is derived from the Project Document. The Results Matrix included 15 assumptions, grouped under the three project components; of these, the assumptions that were most relevant to the overall project logic were the six that were listed under Component I, and these are included in the reconstructed TOC. The remaining “assumptions” under Components 2 and 3 in the Results Matrix were statements to explain aspects of the design rather than assumptions.
46. The TOC (Figure 3) shows that the overall situation analysis and definition of the problem was good and the three project components were clearly designed to address the three identified barriers. Also, the objective was clearly defined and consistent with stakeholders’ needs and the intervention pathways to achieve the objective were logical.
47. Some shortcomings in the project’s design are apparent from the reconstructed TOC (Figure 3):
 - The design was weak in defining how the results from the pilot activities (Component II) would feed back into policies and regulations (Component I), despite this being an important aspect.
 - In addition to the three components, the project contains 13 outcomes, each of which has several outputs, and there is a lot of overlap and interconnection between these. As a result, the Results Matrix is large and difficult to understand. The causal logic would be improved if fewer outcomes were used, showing a clearer path to the desired impact.
 - Furthermore, many of the 13 “outcomes” are poorly worded: they are expressed as outputs or actions rather than as the changes that would be expected as a result of the successful implementation of outputs or actions. The causal logic would have been improved further if the outcomes were a clear description of the changes that would be achieved on the way to achieving the project objective.

-
- The project has a total 45 outputs, each with an indicator and target, many of which also have several parts; this makes monitoring and reporting a challenging and time-consuming task.
 - The MTR noted that the Results Matrix had repetitive outcomes, included indicators that were not specific, measurable, achievable, realistic and timebound (SMART), and found that some targets had overestimated capacity and resources available; consequently, the MTR recommended that the Results Matrix be reviewed and revised.

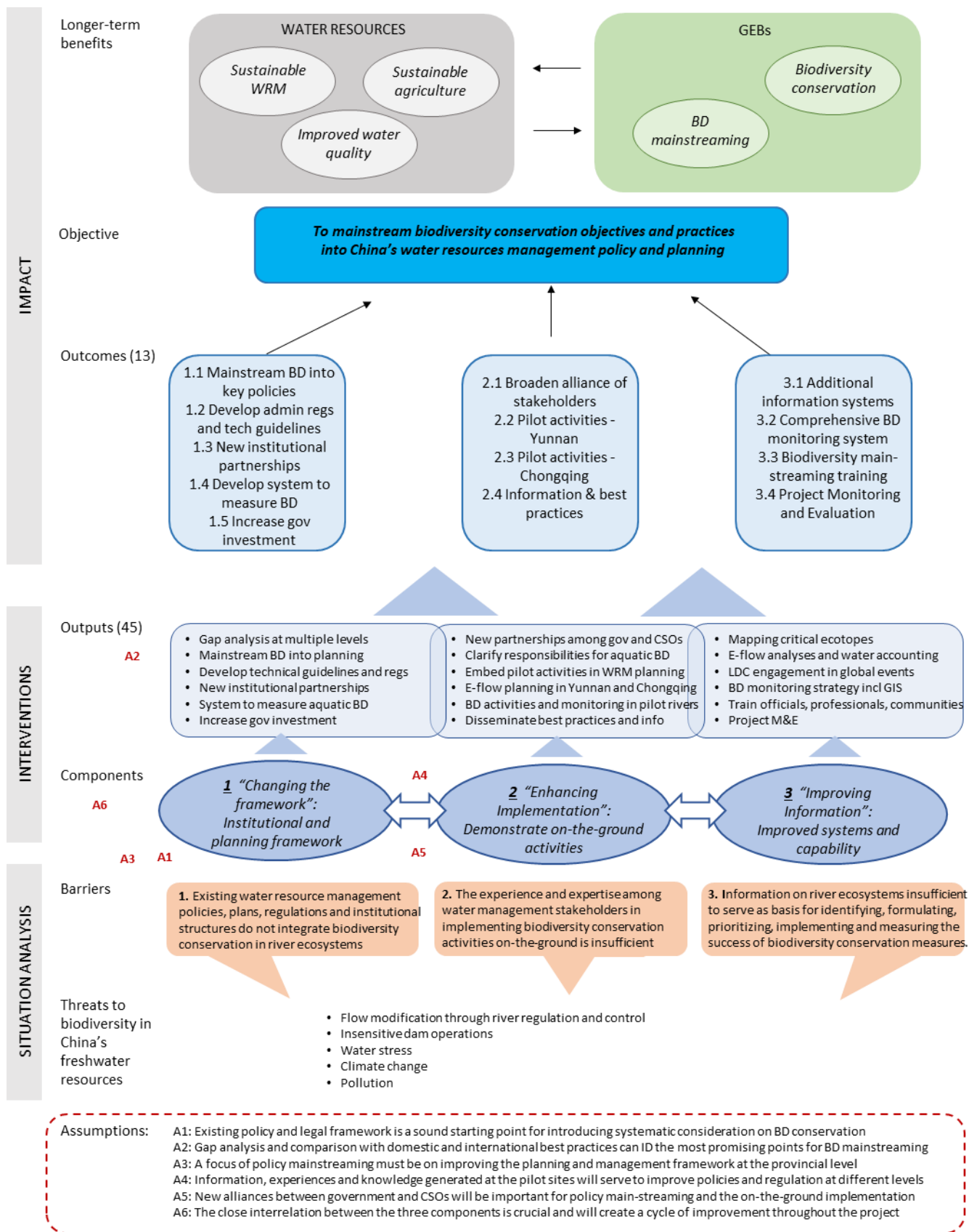


Figure 3: Reconstructed Theory of Change for the project

3. Findings

48. The information in parentheses after findings indicates which evaluation question (EQ) is addressed (see Table 1), if any.

3.1 Relevance

Finding 1. The project was highly relevant to China’s national priorities and this relevance remains high (EQ 1.1, 1.2).

49. At the time of design, the project was consistent with the China National Biodiversity Action Plan (NBAP) and Strategy for the period 2010–2030 and the Project Document lists several aspects of the NBAP that the project supported, especially:
- Geographic Priority Area A – inland terrestrial and aquatic biodiversity conservation
 - Priority Domain 2 – incorporate biodiversity conservation into sectoral planning and promote sustainable use.
50. The Project Document explicitly discussed the role of the project within the larger context of China’s development and environmental policies. In particular, Section 2.1.1 of the Project Document introduced the importance of China’s sequential Five Year Plans (FYP), analysed the increasing level of environmental protection since the 10th FYP (2001–2005), and identified the strategic input of this GEF project to the 13th (2016–2020) and 14th (2021–2025) FYPs.
51. There have since been major changes to China’s national priorities in this area, and the project remains highly relevant in this changed policy environment. In particular, since 2016 the Chinese Government has established the mission to establish an “ecological civilization”, a key element to the process of modernizing China through realising a harmonious coexistence between humans and nature. Governments at all levels are addressing biodiversity conservation and environmental protection under this national policy. This project makes an important contribution to the construction of a water ecological civilization; although this is mentioned in the Project Document, it was not yet prominent.
52. During interviews, many stakeholders confirmed that the project strategy and activities were aligned with current policy priorities at the national, provincial, municipal and county levels; in particular, because construction of ecological civilization is an important national policy in China, it is pursued at all of these levels and the project is strongly supported.

Finding 2. The project was congruent with GEF-5 programme strategies at the time of design (EQ 1.1, 1.2).

53. This GEF-5 project was consistent with GEF-5 Biodiversity Objective #2 (BD-2): “Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes, Seascapes and Sectors” and was designed to support achievement of BD Outcome 2.1 “Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation” and Outcome 2.2 “Measures to conserve and sustainably use biodiversity incorporated into policy and regulatory frameworks”.
54. The project’s strategy established in project design continues to be relevant to later GEF replenishments. For example, it is consistent with GEF-7 Objectives 1 “Mainstream biodiversity across sectors as well as within production landscapes and seascapes” and 2 “Strengthen biodiversity policy and institutional frameworks”.

Finding 3. The project had some congruence with the FAO Country Programming Framework (EQ 1.1).

55. The project was developed to be consistent with FAO's Strategic Framework as reflected in the Organization's 2014–2017 Medium-term Plan, particularly outcomes under the Strategic Objective 2 (SO-2): "Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner". The local departments of water resources management that were involved in the project considered sustainable water allocations and biodiversity conservation in several sectors (including agriculture, fisheries and other production), which made some contribution to the FAO's Strategic Framework. However, the project's connections with sustainable agriculture and food insecurity were not strong; therefore, the realised contribution to SO-2 was limited.
56. Similarly, the project was generally congruent with the current FAO Country Programming Framework (CPF) in China, especially "Fostering sustainable and climate-resilient agriculture development", although the CPF does not have a significant focus on water resource management, therefore the realised contributions to this were also not large.

Finding 4. The project was developed with attention to the needs of local communities and remains relevant to local beneficiaries (EQ 1.1).

57. The project was developed through consultations and investigations with local communities, including ethnic minorities; the Project Document summarizes these consultations (p.15 of Project Document). This included initial engagement to inform the selection of pilot sites, followed by more focused consultation with townships and villages when the four pilot sites had been selected. The Project Document reports that the project's underlying concepts were appreciated by the ethnic minority groups because "living in harmony with nature is deeply embedded in their culture" and that "balancing ecological and economic concerns is therefore a goal shared by the ... project and the local ethnic communities". The project's activities that aimed to improve water quality and aquatic health were consistent with these needs.
58. During interviews at the village level, beneficiaries confirmed that the project design was consistent with their current needs with regard to biodiversity and healthy rivers, although those interviewed had little direct involvement in project design.

Finding 5. The project design had a high level of complementarity with existing policies, activities and other GEF projects within China, although there was limited complementarity during implementation with other external donor projects; some complementarity in protection of shared river basins was developed with international stakeholders (EQ 3.4).

59. The Project Document includes very detailed analysis of the existing legal, policy and institutional settings, ecological and water resource knowledge, and activities and funding programs within China. This included a detailed summary of TNC's role and activities. The project's strategy was designed to complement and improve these existing policies, settings and activities. The Project Document also outlined how this project and the PMO would learn from and seek synergies with other relevant GEF projects in China: three FAO-GEF projects and two GEF projects implemented by other GEF agencies were discussed (Section 4.1b of the Project Document, p. 133). Coordination of the FAO-GEF projects was to include annual meetings of project managers to discuss common areas of work and to share lessons learned.
60. With regard to implementation, the MTR found that there was "no complementarity with other ongoing interventions", including other GEF-funded projects (MTR Report, p. 34). At the time of this TE, although the PMO reported that the project had shared its experiences with another GEF

project, no evidence was provided of complementarity with other international donor projects or of regular meetings between FAO-GEF project managers as anticipated in the Project Document. It was not clear to the evaluation team why this complementarity did not occur. It represents a missed opportunity to share lessons, seek synergies and build networks and partnerships in China, which were important intended contributions of the GEF funding for the various projects that were being implemented.

61. The project developed some complementarity and international cooperation with stakeholders in Vietnam, Lao People's Democratic Republic and Myanmar to improve protection of shared river basins. This was an important opportunity for the GEF project to share its knowledge and experiences and was mentioned during several interviews in both Yunnan and Chongqing.

RATING FOR RELEVANCE

Overall strategic relevance: Satisfactory.

Alignment with GEF and FAO strategic priorities: Satisfactory. The project aligned with GEF and FAO strategic priorities at the time of design and at completion.

Relevance to national, regional and global priorities and beneficiary needs: Highly satisfactory. The project was highly relevant to national, regional and global priorities.

Complementarity with existing interventions: Moderately satisfactory. The project design was based on detailed analysis of current knowledge and sought synergies with other GEF projects in China; during implementation, there was little complementarity with other external donor projects, although some complementarity in protection of shared river basins was developed with international stakeholders.

3.2 Effectiveness

62. This section assesses various aspects of the project's results and achievements, including summaries of progress against the three components. Please see Appendix 5 for the Results Matrix showing achievements and summarizing the evidence and verification for each outcome and output indicator.

Finding 6. The project made a very good contribution to the objective to mainstream biodiversity conservation objectives and practices into China's water resources management policy and planning (EQ 2.1, 9.1; all components, outcomes and outputs).

Finding 7. The project made a significant contribution to the effective generation and processing of advanced information on river biodiversity and its conservation in the four pilot sites (EQ 2.2; Component III).

63. All outcomes were met and most outputs were achieved. The Operational Partner, MWR, has a high level of capacity and capability and was the appropriate Operational Partner for this project. The additional partnerships of the project ensured that high levels of additional expertise were brought into the project, including from TNC and from universities and other institutions. New institutional partnerships were a key part of this project, especially through implementation of the River and Lake Chief System, a five-level network of chiefs that take full responsibility for the management and protection of the country's water bodies. This project provided important support to the establishment of this system at pilot provinces, prefectures, counties and villages. Many interviewees praised the contribution of the project to raising awareness of biodiversity and ecological protection in the various areas of intervention.
64. Under Component I, all 13 outputs were achieved and the achievement rating was Highly Satisfactory. Biodiversity objectives and practices were effectively mainstreamed into key water

resource management policies, planning, and legal stipulations. This work was comprehensive and of high quality. This was successfully implemented at the national, provincial, prefecture and county/district levels because of the good relationships between project stakeholders at these different levels, which was built on the strong existing formal relationships between the relevant water resources agencies. Another important achievement under Component I was the development of a River and Lake Health Assessment methodology. This component is rated Highly Satisfactory because all outputs and targets were achieved with no shortcomings and the complex work was completed to a high standard with very good coordination and input of expertise.

65. Under Component II, 15 of the 18 outputs were achieved and three were partially achieved, and the achievement rating was Satisfactory. On-ground activities were successfully demonstrated in pilot rivers in Chongqing and Yunnan. This comprised a range of activities that were identified in planning and modelling reports, including delivering e-flows, modifying and removing dams and small hydropower stations, protecting and restoring wetlands, and undertaking works to improve habitat and passage for fish species. It is believed that the findings from these activities influenced the mainstreaming activities under Component I, although little specific evidence of this was available and there was no clear mechanism for this in the project design. Also under Component II, the River and Lake Health Assessment developed in Component I was tested in the four pilot rivers and biodiversity monitoring was established for the pilot counties. Finally under Component II, the project compiled and disseminated information and best practices gained from the project.
66. Under Component III, 12 of the 14 outputs were achieved and two were partially achieved, and the achievement rating was Satisfactory. Information systems were improved and the capability to use these systems was enhanced through training. This included undertaking ecotope mapping, preparing e-flow analyses and recommendations, conducting river health assessments, and developing a water accounting system. Monitoring systems were put in place and GIS databases were designed, and these are now operational and being used by agency staff to manage and monitor rivers. The target to develop a strategy for “systematically feeding biodiversity information ... into the mainstreaming activities under component 1” (Output 3.2.1) was only partially achieved. Finally, a system of multi-level and multifaceted biodiversity mainstreaming training was developed and delivered, targeting government officials and water management partners from local communities and civil society organizations; however, the target to provide training on river biodiversity to the local population “with a special focus on empowering and educating women and ethnic minorities” (Output 3.3.5) was only partially achieved.

Finding 8. The GEF tracking tools reported positive achievements although they were completed late and did not provide explanations of calculation methods for quantitative measures.

67. GEF tracking tools were used to report on progress against GEF-5 Objective 2 (Mainstreaming Biodiversity Conservation in Production Landscapes/Seascapes and Sectors). As described in Section 3.51 (Monitoring and Evaluation System), the project closure tracking tool was received late and did not include any explanations for the quantitative measures reported on, which meant that it was of limited value during the evaluation.
68. Table 5 shows the areas of landscape/seascape directly covered by the project, as reported in the tracking tools at midterm and project closure. The data at project closure were verified by the evaluation team through separate verification processes (the method was not explained in the tracking tool) and coincide with data reported under Outputs 2.2.3, 2.2.6, 2.3.3 and 2.3.4 in Appendix 5. All targets were achieved.

Table 5: Landscape/seascape area (ha) directly covered by the project, as reported in Part II Question 1 of the tracking tools at midterm and project closure

Pilot river	Foreseen at project start (ha)	Reported at midterm (ha)	Reported at closure (ha)
Yunnan			
Chuan River	7,500	7,500	8,157
Enle and Buma Rivers	14,400	14,400	17,706
Chongqing			
Wubu River	1,043	1,043	43,000
Tang River	30,000	30,000	18,100
Total	52,943	52,943	86,963

69. Table 6 shows the area of coverage of the management practices employed by project beneficiaries that integrate biodiversity considerations, as reported in the tracking tools at midterm and project closure. These data were not verified by the evaluation team as the methodology was not provided. All targets are reported as being achieved.

Table 6: The area of coverage (ha) of the management practices employed by project beneficiaries that integrate biodiversity considerations, as reported in Part III Question 4 of the tracking tools at midterm and project closure

Management practices	Foreseen at project start (ha)	Reported at midterm (ha)	Reported at closure (ha)
E-flow establishment as primary guide for planning and management; project will establish its own certification system	52,943	52,943	485,200
Habitat improvement and restoration (incl. wetland restoration)	186.0	70.4	767.6

Finding 9. The opportunity to link the project with the implementation of the River and Lake Chief System was a positive unintended result (EQ 2.3).

70. The Project Document identified the need for a new river governance system that clarified responsibilities and tasks for all stakeholders involved in river biodiversity conservation. At the time of project development, the River and Lake Chief System was not yet a major national policy direction, therefore it is not a part of the project design and is not mentioned in the Project Document.

71. The project identified early that there was an opportunity to link with this developing policy priority. As reported in Appendix 5 under Output 2.1.1, the Project Inception Report (December 2016) noted that the central government had decided to establish the River and Lake Chief System

and that the project's Outcome 2.1 would be delivered through implementation of this. The project had positive impacts on implementation of the River and Lake Chief System in the pilot locations, especially in improving the consideration of biodiversity and providing training and capacity building.

Finding 10. There are no significant barriers or risks that may prevent future progress towards and the achievement of the project's outcomes and objective (EQ 2.4).

72. No significant barriers were identified to achieving the project's outcomes and objectives before project completion. Some risks have been identified to the sustainability of results after project completion, relating to financing and technical support; these are discussed in Section 3.4 (Sustainability).

Finding 11. The project has made good contributions towards long-term impact (EQ 9.1).

73. The activities and trials in the pilot rivers contributed to long-term positive impacts on river health, management and monitoring for approximately one million people in 18 towns and townships (Table 3). Beneficiaries who were interviewed understood the contributions of the project to these positive impacts and to improving the awareness and appreciation of biodiversity within the communities.
74. Biodiversity monitoring systems have been established in the pilot rivers in both provinces (incorporating the River and Lake Health Assessment system) to enable measurement of ecological improvements. The evaluation team was shown data for river health from 2019, 2020 and 2021; however, it is too early to confidently identify trends and ecological impacts from these datasets. Nevertheless, the evaluation team heard anecdotal reports, including from several village beneficiaries, that water quality in the pilot rivers has improved, that populations of native fish species had increased and that some species of native fish had reappeared after an extended absence.
75. The self-assessment report also noted some waterbird species that were newly recorded in Jingdong and Zhenyuan counties (see reporting under Output 2.2.5 in Appendix 5) and suggested that this indicated an improvement in river health. Unfortunately, no specific bird monitoring system was established in Jingdong County, despite this being a component of Output 2.2.5, so this has not been formally monitored.
76. The project implemented numerous on-ground activities in the pilot rivers that are expected to deliver long-term impacts, although the ecological outcomes are not yet measured. These activities are reported on under Outcomes 2.2 (Yunnan) and 2.3 (Chongqing) and included wetland restoration, fish passages, embankment works, release of fish fry, alterations to dam operations, and removal of dams.
77. As previously described, the project strategy was generally appropriate for achieving the expected impacts as identified in the reconstructed theory of change (Figure 3). Accordingly, the project's interventions were well targeted towards measures that will contribute towards long-term impacts. In particular, as documented in Appendix 5, this evaluation verified achievements in the following areas that will contribute towards long-term impacts:
- Biodiversity has been mainstreamed at multiple levels, ensuring that biodiversity will be considered for at least the term of the relevant policies, regulations and legal stipulations – mainstreaming into various Five Year Plans is particularly significant as these are key planning instruments in China.

- The River and Lake Chief System has been established in China (see under Output 2.1.1 and 1.3.1 in Appendix 5) and the project ensured that biodiversity was considered in the roll-out of this in the pilot locations. This contributes to long-term impact by improving collaboration and coordination and providing clear allocation of responsibilities for the management and protection of water bodies.
- The project implemented an extensive training program, especially in building the capacity of key stakeholders in matters such as river health assessment and biodiversity monitoring, mainstreaming biodiversity into water resources planning and management, aquatic ecology and conservation, and e-flow management.
- The project improved knowledge and information systems, including through ecotope mapping, e-flow modelling, ecological surveys, and monitoring and health assessment. Importantly, both provinces developed GIS-based databases that have been incorporated into the respective Water Resources Bureau database, which will maximise the likelihood of the information being used on a routine basis by staff and other experts.

Finding 12. The project actively contributed to many changes to China’s policy/legal/regulatory framework, which was a highlight of the project (EQ 9.2).

78. The project actively contributed to many changes in China’s policy/legal/regulatory framework for water resources management and biodiversity; these are summarized under Component I in Appendix 5.
79. As described under Finding 7, this work was comprehensive and of high quality. It represented genuine added value from the GEF project to improve the consideration of biodiversity in numerous water resource management policies, planning, and legal stipulations at several levels in China. Key reasons for this success were the leadership of MWR, the effective relationships between relevant water resources agencies, and the use of additional expertise to identify gaps, opportunities and interventions. This aspect was a highlight of the project.

Finding 13. The project achieved additionality through its focus on biodiversity conservation in all activities (EQ 11.1).

80. The key strategy of the project was to work with existing institutional arrangements and with existing government programs and initiatives to improve the consideration of biodiversity. The evaluation team heard on many occasions that the GEF project brought “a new mindset” to these diverse areas: policy and legal frameworks, monitoring and health assessment, operation of dams and hydropower stations, and river and lake “chiefs” now think about species, water quality and ecology as well as other considerations. In this way, the project has achieved significant additionality.

RATING FOR EFFECTIVENESS

Overall assessment of project results: Satisfactory.

Delivery of project outputs: Satisfactory. The project delivered most outputs and met most associated indicators.

Progress towards project objective: Satisfactory. The project made very good progress towards the objective.

Progress towards Component I: Highly satisfactory. The project was highly successful at changing the institutional and planning framework for mainstreaming biodiversity into water resources management

at national, provincial and local levels. This is rated HS because there were no shortcomings and the complex work was completed to a high standard.

Progress towards Component II: Satisfactory. The project effectively demonstrated on-the-ground biodiversity activities in pilot rivers and contributed to implementation of the River and Lake Chief System in the pilot locations.

Progress towards Component III: Satisfactory. The project successfully improved knowledge and information systems on river biodiversity, including monitoring systems and GIS databases, and provided extensive training to many stakeholders.

Overall rating of progress towards achieving objectives/outcomes: Satisfactory.

Likelihood of impact: Satisfactory. The project's investments in biodiversity mainstreaming at multiple levels, improved partnerships, long-term monitoring, documentation of best practices, extensive training, and improved information systems mean that impacts are likely.

3.3 Efficiency

Finding 14. This project was one of the earliest to be implemented under FAO's Operational Partners Implementation Modality (OPIM), with the first Operational Partners Agreement for the project being developed in 2016 and subsequently revised in 2018, which caused a delay in initiation (EQ 3.2).

81. This project was implemented under FAO's Operational Partners Implementation Modality (OPIM) via an Operational Partners Agreement (OPA) between the FAO and the Operational Partner (OP).
82. FAO's Manual Section 701 (MS701/OPIM) provides detailed guidance on engaging with operational partners and implementing projects through OPIM, including the negotiation of an OPA. MS701/OPIM was issued in late 2015 and the first OPA for this project was negotiated during 2016, which means that the project was one of the earliest to be negotiated under MS701/OPIM.
83. Because there was little experience with negotiating OPAs under MS701, there was a lack of understanding of some critical matters such as the proportion of the GEF funds that should be transferred to the MWR; the responsibility for key quality assurance and evaluation activities; the respective responsibilities for technical oversight; and monitoring and management of MWR's performance using a risk-based approach. A consequence is that the initial OPA, executed in September 2016, was revised shortly after execution but this amendment was not executed until July 2018.
84. A significant reason for the need to revise the OPA was that the first version committed to transferring 100 percent of the project's GEF funds to the OP. Also, due to a policy change since the project was designed, TNC could not receive funding directly from a Chinese government agency. Therefore, one of the objectives of the first amendment was "to revise the original budget ... of the signed OPA and to re-allocate a total amount of USD 547,550 to FAO for taking over part of the operational activities, conducting monitoring, evaluation terminal report and to recover a part of project management costs and conduct oversight activities" (p.1 of OPA Amendment No. 1).
85. These renegotiations led to delays in the flow of GEF funds, which coincided with delays while institutional reforms in China were finalized and the PMO and Project Manager were recruited.

Finding 15. The institutional arrangements, partnerships in place and resources available contributed positively to the achievement of the project's results and objectives (EQ 3.1, 3.2).

86. MWR has a high level of capacity and capability and was an appropriate OP for this project. Importantly, the project's internal arrangements and relationships, especially having PMOs at three levels, built on the existing formal relationships between the water resources agencies at different levels to ensure that required actions were implemented in a timely manner. The national PMO gave strong guidance to the provincial PMOs. This was confirmed during several interviews.
87. The additional partnerships of the project augmented the high level of capacity and capability within the water resources bureaus. This includes the implementation of the River and Lake Chief System and the involvement of the project in that. However, although external expert institutions were involved, only one university was prominent in each province, which limited the breadth and depth of these partnerships. Also, there was limited involvement of CSOs and NGOs apart from TNC.
88. High levels of co-financing (see Findings 18 and 30 and Appendix 4) meant that the project delivered substantial results and the GEF financing was well targeted at interventions that added value by strengthening the consideration of biodiversity in all components.

Finding 16. Strong national leadership from MWR and effective partnerships mean that the project built complementarities and avoided duplication (EQ 3.4).

89. As the national agency with lead responsibility for water resources management planning and policy, MWR and the PMO were able to ensure that the project met its priorities and did not overlap with or duplicate other work being done by other projects. This was important for nationally coordinated programmes such as the River and Lake Health Assessment and the River and Lake Chief System. Also, the involvement of key national experts and international expertise in e-flow modelling and implementation (including MWR, TNC and other institutions) means that complementarities were built in this important area.
90. The project fostered cooperation between different departments with responsibilities for water health protection, including under the multi-level River and Lake Chief System. Cooperation across multiple sectors was established and operationalized, involving several national agencies with responsibilities for water protection (such as ecological and environment protection, agriculture, and law enforcement). This improved cooperation was reported in numerous interviews with government stakeholders at national and provincial levels.
91. The evaluation team found that stronger relationships could have been built with other national agencies with related responsibilities in particular areas, such as clarifying responsibilities and developing synergies with the Ministry of Ecology and Environment around ecological monitoring.

Finding 17. The Operational Partners Agreement was implemented efficiently (EQ 3.5).

92. As described under Finding 14, implementation of the project was governed by an OPA, signed in September 2016 and amended in 2018 for several purposes. Three subsequent OPA amendments were made to accommodate project extensions.
93. The OPA was implemented efficiently and the MWR had appropriate capacity and capability to meet their responsibilities under the OPA. This is an important finding: during a recent evaluation of the FAO-GEF project "Securing Biodiversity Conservation and Sustainable Use in Huangshan Municipality" (GCP/CPR/049/GFF), which was delivered in China under a pre-OPIM indirect

execution modality, significant shortcomings were identified in the capacity and capability of the executing partner, a municipal reserve management bureau, to meet requirements under the modality. As a large national ministry, MWR had the capacity and human resources required in this project.

Finding 18. The project was very cost effective, due to excellent co-financing and the active participation of the Operational Partner (EQ 3.3, 3.6, 5.10).

94. The materialized co-financing exceeded that committed in the Project Document (see Appendix 4 and Finding 30), and MWR and other contributing government partners delivered extensive work on all outputs and outcomes (see reporting in Appendix 5). The GEF project was able to add significant value to this work from a biodiversity mainstreaming perspective. Given these factors, the active involvement of MWR and the likely sustainability of most project results, the project was a very cost-effective use of USD 2.6 million of GEF funds.

Finding 19. Some mechanisms were established to facilitate intra- and inter-institutional coordination and decision-making in areas of mutual interest, although some of these may not continue (EQ 3.7).

95. The project contributed to the implementation in the pilot locations of the River and Lake Chief System, which is a major new mechanism for clarifying responsibilities and providing coordination and communication for the management and protection of the country's water bodies. This mechanism is now active at several levels and biodiversity is considered in the pilot provinces, counties and rivers, as evidenced from interviews and review of relevant documents (see reporting on Outputs 1.3.1 and 2.1.1 in Appendix 5). As a national priority, the River and Lake Chief System will continue after this project.
96. A working group / stakeholder network was to be established under Output 1.3.1 and PSC minutes noted the creation of a working group; however, the evaluation team did not hear or see any other evidence of such a group / network being established on an ongoing basis.
97. Also, an important role for this project was the coordination and provision of technical expertise in biodiversity mainstreaming and aquatic ecology. There is no apparent plan for ensuring that such a role continues after project completion (see also Section 3.4 Sustainability).

RATING FOR EFFICIENCY

Efficiency: Satisfactory. The project was very cost effective and was delivered efficiently after delays during the first two years.

3.4 Sustainability

Finding 20. The project's results are likely to be sustainable, given strong government ownership and the effective investments in biodiversity mainstreaming at multiple levels, improved partnerships, establishment of long-term monitoring, documentation of best practices, extensive training, and improved information systems; risks to sustainability arise from challenges with financing and the ongoing availability of technical support to stakeholders (EQ 4.1, 4.5).

98. The project has strong government ownership and high alignment with national priorities; this will continue after the project because China will continue to work to build an ecological civilization.

-
99. Most of the project's interventions have been well targeted on measures that will continue beyond the life of the project, including:
- Effective mainstreaming of biodiversity into sectors and plans
 - E-flow analysis and implementation underway
 - Biodiversity and ecology are now considered in water monitoring systems - the project brought new concepts to concrete action
 - Monitoring and River and Lake Health Assessment are in place
 - Several guidelines developed
 - Positive contributions to the River and Lake Chief System
 - Extensive training and capacity building
 - Best practices documented and disseminated
 - Strong ongoing partnerships and networks built, including expert partnerships
 - Additional financing secured for biodiversity and e-flow work (e.g. Pu'er Municipality).
100. The project has built closer working relationships between MWR and water resources agencies at different levels because the project's management structure was built on existing formal relationships and the national PMO provided strong project leadership.
101. The evaluation team understands from discussions that proposals for new projects (e.g. GEF-8) are being considered based on this project's experiences.
102. There are some risks to the sustainability of the project's results, as described below.
- Financing: The evaluation team heard during interviews that there are challenges at all levels with appropriately allocating financing in this area; it is understood that generally there is financing available, but the appropriate allocation of that is a challenge. Also, there will be demands to enhance financing for infrastructure (including data and M&E systems) at the provincial level; this project gave a good starting point for addressing these.
 - Technical support: A key reason for this project's success was the provision of technical support in biodiversity mainstreaming and aquatic ecology to the diverse processes and programmes that the project was involved with. It is not clear whether such technical support will be available after project completion (although it is likely that TNC will continue with some technical role in China).
103. A draft sustainability plan / exit strategy has been developed, which is an important first step. This should be revised to address these and other identified issues and opportunities (see Recommendation 3).
104. FAO should be involved in developing the sustainability plan, including identifying FAO's role in its implementation. Opportunities also exist for FAO to consolidate sustainability action items from projects that are recently closed or will close in 2023, to identify commonalities and synergies, define any systemic issues to address, and consider consolidating sustainability action items into an action plan to ensure systematic follow up (see Recommendation 3).

Finding 21. The project established institutional arrangements and cross-sector partnerships that are likely to be sustainable (EQ 4.2).

105. As described in detail elsewhere (including under Outcome 1.3 and Output 1.2.1 in Appendix 5), the project contributed to the implementation in the pilot locations of the River and Lake Chief System and built other partnerships through the project that have been important in improving communication and collaboration.
106. The River and Lake Chief System is a national priority that is being rolled out in China regardless of this project, therefore it will be sustainable. There is less certainty about whether the elevated profile and attention received by biodiversity in this system in the pilot locations will continue – it is important that the sustainability plan for the project addresses the ongoing need for technical support in biodiversity mainstreaming and aquatic ecology.
107. The likely sustainability of other partnerships established by the project is difficult to assess, because it is not clear whether a working group / stakeholder network was established on an ongoing basis (see Output 1.3.1).

Finding 22. Some replication and scaling up of results and experiences has already occurred within Yunnan and Chongqing, and significant opportunities exist to further replicate activities and practices within the two pilot provinces and in other provinces (EQ 4.3).

108. Some replication has already occurred beyond the scope outlined in the Project Document, such as in the extensive application of the River and Lake Health Assessment and biodiversity monitoring in rivers other than the pilot rivers.
109. Significant opportunities exist within Yunnan and Chongqing to further replicate the activities and practices developed in the project. Given the skills and knowledge that are in these provinces due to the project, it would be timely to systematically roll out key activities and practices across the provinces (see Recommendation 1).
110. Similarly, significant opportunities exist to replicate in other provinces the activities and practices developed in the project (see Recommendation 2). It will be important that approaches to be used are designed for the relevant provinces' situations and needs, rather than using a single approach. Important lessons can be learned from the two pilot provinces in this project, which had very different situations and needs (e.g. population size, industrial demands, extent of infrastructure modification to the rivers, ecological intactness of rivers, hydropower needs, etc.) and therefore different approaches were adopted. The choice of Yunnan and Chongqing as pilot provinces was a good decision during project design, because they provided a range of situations and interventions, which maximized the lessons learned from the project.
111. It is recommended that the project sustainability plan be revised to include consideration of these recommendations regarding replication and scaling up (see Recommendation 3).

Finding 23. The OPIM modality ensured national ownership and, through that, increased the likelihood of the sustainability of project results (EQ 4.4).

112. Under the OPIM indirect execution modality that this project used, the national government agency, MWR, was the Operational Partner and it worked closely with other government agencies to implement the project. The GEF project brought a new focus on biodiversity and aquatic ecology to water resources management in China, particularly at provincial, prefectural and county levels. It also achieved national-level impacts, especially through influencing development of the River and Lake Health Assessment and implementation of the River and Lake Chief System.

As detailed under Component I in Appendix 5, biodiversity was mainstreamed into many policies, regulations and guidelines (including those relating to e-flow, hydropower stations, monitoring and river health assessment, Five Year Plans, river management plans, ecological restoration, water pollution, and water use) and embedded into the “mind set” of provincial, prefectural and county agencies (as the evaluation team heard during interviews). These contributions increase the likelihood of the results continuing after the project is completed.

D. RATING FOR SUSTAINABILITY

D1. Overall likelihood of risks to sustainability: Sustainability is likely (there is little or no risk to sustainability). The project’s interventions have been well targeted on biodiversity mainstreaming at multiple levels, improved partnerships, establishment of long-term monitoring, documentation of best practices, extensive training, and improved information systems; risks to sustainability arise from challenges with financing and the ongoing availability of technical support to stakeholders and programmes.

D1.1 Financial risks: Sustainability is moderately likely (there are moderate risks to sustainability). There is regular financing but there are risks with the appropriate allocation of that financing; also, there will be demands to enhance financing for infrastructure (including data and M&E systems) at the provincial level.

D1.2 Socio-political risks: Sustainability is likely. The project is very consistent with national political priorities, therefore it has strong support at all levels of government. There is some risk that county, township and village stakeholders may not continue to consider biodiversity if the provision of technical awareness raising and training does not continue.

D1.3 Institutional and governance risks: Sustainability is likely. The River and Lake Chief System is a positive fundamental institutional and governance reform and this will continue as a central government priority and, therefore, as a priority for all levels of government.

D1.4. Environmental risks: Sustainability is likely. There are no significant environmental risks to the sustainability of project results.

D2. Catalysis and replication: Satisfactory. The project components that involved replication have been effectively delivered; there has also been some additional catalysis and replication within the pilot provinces, such as in the application of the River and Lake Health Assessment and biodiversity monitoring in other rivers.

3.5 Factors affecting performance

Finding 24. The project design had some shortcomings that led to implementation challenges (EQ 5.1, 5.2).

113. The shortcomings in project design that led to implementation challenges are described under Section 3.1 (Relevance). Although the project’s overall strategy and three components are suited to delivering the expected outcomes, the Results Matrix is large, complicated and difficult to report against.
114. After the MTR, some changes were made to the Results Matrix, which consisted of updating terminology (e.g. replacing “Green Line Scorecard” with “River and Lake Health Assessment”), amending some quantitative targets, and making other minor amendments; there were no structural changes to the Results Matrix, therefore it remained large and complicated.
115. The complex results framework made it difficult to plan implementation and reporting. This was emphasized for the evaluation team when evaluating deliverables and reporting during the

evaluation. The evaluation team received a large amount of information and reports (over 50 hard-copy documents and over 80 electronic document abstracts were reviewed, mostly in Chinese) and it was difficult to determine which indicators these contributed to and to assess whether each target was met. Overlap and inter-connections between outcomes and outputs meant that reports and other evidence were often applicable to more than one indicator. These difficulties for evaluating the project give insight into the challenges in planning and implementing the project's multiple interacting parts.

116. The design was weak in defining how the results from the pilot activities (Component II) would feed back into policies and regulations (Component I), despite this being an important part of the overall strategy. The evaluation team did not develop a clear understanding of the extent to which this feedback from Component II to Component I occurred, as the reporting and evidence received does not address this. Many technical documents were received (as summarized in Appendix 5) and it was difficult to understand their contributions to indicators and their inter-relationships. However, two examples suggest that the pilot activities had limited impact on the policies and regulations under Component I. First, although it is understood from interviews that interactions occurred between relevant national and provincial stakeholders during the trials of the River Health Assessment in the pilot rivers, the national guidelines received for this are dated 2020, before the trials were finalized (see Output 1.4.2 in Appendix 5). Second, although it is known from interviews that discussions occurred between stakeholders and experts at many levels regarding the e-flow recommendations and trials in pilot rivers, the two relevant national guidelines received are dated 2020 and 2021, also before these trials were finalized (see Output 1.2.1 and various other outputs in Appendix 5).

3.5.1 Monitoring and evaluation system

Finding 25. The M&E plan at the point of project endorsement was generally practical and sufficient, although the M&E budget was high, the project's Results Matrix was large and confusing and there were no gender-disaggregated targets.

117. Section 4.5 "Monitoring and Reporting" of the Project Document gave a detailed description and budget for the project's M&E, including oversight and monitoring responsibilities, indicators and information sources, reports and their schedule, and an M&E budget.
118. The M&E plan included the standard FAO and GEF requirements and was clear about responsibilities and timing. The M&E budget was USD 257,800, which is 9.9 percent of the GEF grant. This is a high percentage for such projects, especially because a lot of the activities are "soft" activities such as biodiversity mainstreaming. The budget includes USD 40,000 for the inception workshop, which is very high, and a total of USD 80,000 for "Design and set-up of project monitoring system including training of staff and equipment", but this is not explained further.
119. The project's Results Matrix was large, with 45 indicators across 13 outcomes; many of the indicators had several parts to them. This created a very high monitoring and reporting burden, with a lot of time and energy spent on meeting reporting requirements (a point also made by the MTR). Also, as analysed during the MTR, many of the indicators and targets did not meet the criteria of being specific, measurable, achievable, realistic and timebound (SMART). It was also difficult to understand the relationships between some outcomes and outputs, which further complicated monitoring and reporting. Most quantitative indicators in the Results Matrix contained baseline data where required, although qualitative baselines were often poorly defined and confusing.
120. Outcome 3.4 of the Results Matrix comprises the implementation of the M&E plan.

-
121. There were no gender-disaggregated targets in the M&E plan, although the target for Output 3.3.5 was “Provision of training on river biodiversity to local population with a special focus on empowering and educating women and ethnic minorities” (with no quantitative target for the number or proportion of women). As described in Section 3.6.1 (Gender), this GEF-5 project did not undertake a gender analysis, as this was not required at the time, and did not include any specific actions that addressed gender issues.
122. A GEF tracking tool was prepared at the start of the project for GEF-5 Objective 2: Mainstreaming Biodiversity Conservation in Production Landscapes/Seascapes and Sectors, and was to be used to track project progress.

Finding 26. M&E was implemented in accordance with the M&E plan, although there were some shortcomings in the quality of reporting against indicators for the terminal evaluation and in the timely completion of the tracking tools and their use to track the project’s progress.

123. The project generally followed the M&E plan, including:
- Project Inception Report for the inception workshop dated December 2016
 - Annual work plans and budgets considered by the PSC
 - Six-monthly project progress reports (PPRs); these were prepared for all six-month periods and were very detailed, including progress updates and ratings, actions taken to address shortcomings, information on challenges, risk management, adjustments to project strategy, and an update on expenditure and co-financing materialized
 - Annual Project Implementation Review (PIR) for the years 2018 to 2022 (not prepared in 2017 due to delays with the project start)
 - Co-financing reports – annual reporting included in PIRs and PPRs
 - MTR completed in 2020
 - Final evaluation (this report).
124. The project also prepared a detailed self-assessment report that was provided to the evaluation team during the evaluation and was of assistance to the team. This report contained reporting against the Results Matrix, useful insights and lessons learned. However, reporting in the self-assessment report against many of the indicators in the Results Matrix was incomplete or did not sufficiently address the wording of the indicator and/or target, and much of the reported progress was not supported by evidence; consequently, evidence of achievements was gradually accumulated during the evaluation using a diverse range of sources and the evaluation team was required to repeatedly ask for further information and explanation of how results had been determined. These difficulties were exacerbated by the overlap and inter-connections between the outcomes and outputs (described under Finding 25), which meant that evidence and reports were often applicable to more than one indicator.
125. Also, many of the documents that provided evidence for progress were not received until late in the evaluation period, due partly to strict controls on the release of electronic documents. Given the large amount of information received by the evaluation team (including over 50 hard-copy documents and over 80 electronic document abstracts) and the difficulties determining which indicators the information contributed to, the evaluation team found it challenging to systematically assess progress against the indicators and targets. For future projects, it is important that projects agree early on how each indicator and target will be measured and verified and that evidence is gathered in a timely manner before commencement of the MTR and TE. This should include obtaining early the necessary clearance for the release of relevant documents.

-
126. The evaluation team also received detailed self-assessment reports from the two provincial PMOs – these were in Chinese and contained a lot of detailed information on project activities at the provincial, prefecture and county levels. Briefer bilingual reports titled “Status of pilot projects in Yunnan” and “Status of pilot projects in Chongqing” were also received, which contained useful summary information on the project, pilot rivers and counties, measures to address relevant policies and regulations, implementation of the River and Lake Chief System, activities in the pilot rivers, ecological surveys, and biodiversity monitoring.
 127. The project closure GEF tracking tool was received late in the evaluation period and was not available to inform the evaluation during the document review, interview, data analysis and report preparation phases. When received, the tracking tool did not include explanations for the quantitative measures reported on, which meant that it was difficult for the evaluation team to verify the reporting. Also, the midterm tracking tools viewed by the evaluation team were dated 25 April 2021, which is after the data of the MTR; furthermore, the MTR does not mention the tracking tools or include them in the list of documents reviewed. These findings show shortcomings in the timely completion of the tracking tools and in their use to track the project’s progress.
 128. There were minor amendments to the M&E plan, including some changes to the Results Matrix after the MTR. Although some informal gender-disaggregated reporting was provided for training and participation (see Section 3.6.1), the project would have benefited from the M&E plan being amended during implementation to formally include gender-disaggregated reporting.

3.5.2 Quality of implementation and execution

Finding 27. The FAO effectively delivered oversight, supervision and backstopping during most of the project, although there were shortcomings in the early years (EQ 5.9, 5.11).

129. **Quality of implementation.** During most of the project, FAO provided effective oversight, supervision and backstopping. Feedback during interviews about FAO’s oversight and support was positive, indicating that staff were responsive and addressed challenges to implementation.
130. The MTR described in detail early shortcomings in FAO’s oversight (MTR pp. 59–60), relating to the adequacy of FAO’s capacity and processes between 2016 and 2018 regarding the early OPIM modality and negotiation of the OPA. At the time of this TE, these observations have limited relevance, because FAO’s systems and capacity have been improved and OPIM and MS701 are well established. In particular, FAO CO has since recruited a second GEF Portfolio Officer, which has doubled the capacity of this important function in the country.
131. FAO was also effectively involved in project identification, formulation and approval, developing a project that has relevance to national, GEF and FAO priorities. It is providing proactive oversight to project completion and evaluation, with a strong view to learning to improve future processes and results.
132. The successful application of OPIM in this project is due in large part to the efforts of FAO teams (including the CO, GCU and OPIM office) over several years to establish and continuously improve national execution in China, as well as positive actions by FAO and MWR in this project (see also Finding 17).
133. Risk management through the annual PIRs was effective and is described under Finding 28.

Finding 28. The MWR effectively discharged its role and responsibilities related to the management and administration of the project, including risk management (EQ 5.7).

134. **Quality of execution.** As the executing partner, MWR effectively discharged its role and responsibilities to manage the project's day-to-day activities and ensure the appropriate use of funds, procurement and contracting of goods and services to the GEF Agency.
135. In accordance with the Project Document, annual work plans and budgets were developed based on the multi-year work plan (Annex 2 of the Project Document) and considered by the PSC.
136. Implementation has generally been results-focused, with many project outputs being efficiently generated. However, as described elsewhere, the size and complexity of the Results Matrix means that a lot of focus was on meeting this large delivery and reporting burden and there was less focus on the "the big picture" and on interactions between project components.
137. The MTR found that there were shortcomings in project management early in implementation because of a lack of familiarity with applying the OPIM modality, but that this improved considerably after the PMO was established and a project manager was recruited (MTR p. 59). The TE team found that project management since the MTR has efficiently met requirements.
138. Staffing levels were adequate for meeting MWR's requirements after initial delays while institutional reforms were finalized, processes were agreed upon and understood (including negotiating the OPA), and recruitment was completed. The PMO received sufficient human resources and financial resources for its operation and had sufficient capacity to support project implementation.
139. Decision-making has been transparent, with PPRs, PIRs and PSC minutes providing clear documentation of progress, challenges, and changes to implementation.
140. Risks were identified and managed adequately, especially through the annual PIRs. In each PIR, risks were identified and rated, mitigation actions were identified, and updates on progress on mitigation were given. This was an effective use of the PIR as a risk management mechanism. The highest rating of any risk during the project was Moderate. The project was assessed as having a Low overall risk rating at commencement; this was reassessed in each PIR and continued to be Low risk throughout. The evaluation team identified shortcomings in the assessment of the overall Environmental and Social Risk classification in the PIRs, as described under Finding 35.
141. COVID-19 was first identified in the 2020 PIR as a Moderate risk and mitigation actions included reviewing and adjusting the work plan and moving some meetings and training to a virtual format. This was an appropriate risk management and adaptive management response.
142. MWR showed strong ownership and leadership of the project. They provided good support to the provincial PMOs, building on their existing formal relationships with the provincial water resource agencies.

3.5.3 Financial management and mobilization of expected co-financing

Finding 29. The primary financial management challenges were caused by restrictions relating to the COVID-19 epidemic and only 82.6 percent of the GEF grant had been disbursed by 30 June 2022 (EQ 3.6, 5.10).

143. The 2022 PIR reported that, at 30 June 2022, the project had disbursed USD 2,181,001 (82.6 percent) of the GEF grant. This is a low level of disbursement given that the project was extended from an original completion date of 31 May 2020.
144. The primary financial management challenges faced by the project have been those that arose as a consequence of restrictions due to the COVID-19 epidemic. The key adaptive management responses to COVID-19 by the project have been to review and adjust the work plan and to move some meetings and training to a virtual format, which resulted in lower expenditure. Also, COVID-19 significantly affected the TNC activities that involved training and international experts, which meant that a lower budget was required for those activities. The two project extensions that were granted in 2022 (initially to 5 September 2022 and then to 31 May 2023) were in response to these difficulties with finalizing the project and expending the budget in the face of COVID-19 restrictions.

Finding 30. Actual co-financing significantly exceeded the sum committed and the national, provincial and county governments made critical contributions (EQ 5.10, 8.1, 8.2).

145. Appendix 4 shows the materialized and committed co-financing for the project. The materialized co-financing significantly exceeded that committed at CEO endorsement (total committed: USD 25,975,000; total reported materialized: USD 36,919,110). All co-financers exceeded their committed contribution.
146. The collective government contribution from the three agencies (USD 35,978,360) is 142 percent of the committed government contribution. At the time of the MTR, over 60 percent of planned co-financing had already been delivered, so the project successfully continued this good delivery record.
147. Authorised statements bearing the agency stamp were provided as evidence of the government co-financing, which is very good practice. These statements also included information on the use of the funds, which are summarized below.
 - MWR: the construction of water ecological civilization, river and lake management, implementation of the River and Lake Chief System, and rural water conservancy and hydropower management.
 - Yunnan: embankment treatments, river cleaning, ecological restoration, fish population management, a sewage treatment plant, and publicity.
 - Chongqing: river cleaning, fish breeding and release (including a fish breeding station), fisheries management, embankment treatments, rural water source renovation, small hydropower station flow rectification, river cleaning, assessment of e-flow discharge, constructing a fish passage, implementing other demonstration works, and training and publicity.
148. These government co-financing contributions were core project elements and the GEF interventions were well targeted to leverage from this government expenditure to achieve positive biodiversity outcomes.

-
149. The main factor that enabled materialization of the planned co-financing was that project design and implementation were strongly anchored in the priorities and needs of the relevant government agencies. The GEF project strategy of working closely with agencies to influence existing major policy reform was effective.

3.5.4 Project partnerships and stakeholder engagement and ownership

Finding 31. Stakeholder engagement was generally good (EQ 5.3, 5.4, 5.5, 5.6, 10.1).

150. A communication strategy was prepared in 2019 and revised in 2021. The communication strategy had several aims: to promote internal and external communication and exchange of the project, so as to strengthen inter-agency cooperation; to raise the awareness of stakeholders on the protection of aquatic biodiversity; to encourage government departments at all levels to attach importance to the protection of aquatic biodiversity and promote the adoption of project policies and management suggestions; and to promote successful experiences of the project in the protection of aquatic biodiversity nationwide. Various audiences were identified (including governmental officials, technical support groups and rural communities) and relevant products were delivered to target audiences by multiple channels (including PSC meetings, workshops, website, briefs of departments, social media, posters and videos). The communication strategy also considered gender and ethnic minorities to improve participation of different stakeholders.
151. Universities and other research and technical institutions made important contributions to this project, ensuring a sound scientific and technical basis to the project's results. The universities involved were largely restricted to one in each province (Southwest University in Chongqing and Yunnan University in Yunnan); it would be beneficial to involve more universities to build a larger and more sustainable partnership of experts.
152. Also, the involvement of NGOs was largely restricted to TNC, a project partner that had a primary role of bringing expertise to the project, especially international expertise. TNC is an international non-profit CSO with an office and extensive activities in China; there was limited involvement of domestic NGOs, CSOs or the private sector (see reporting under 1.3.1 in Appendix 5).
153. Similarly, although TNC were involved in project design, there was limited involvement in design of domestic NGOs, CSOs or the private sector. Also, the Project Document reports that consultation with local communities was undertaken during project design when the pilot rivers had been selected. During interviews with beneficiaries from villages, it was confirmed that the project design was consistent with their current needs with regard to biodiversity and healthy rivers, although they were not able to confirm the extent of engagement during project development.

3.5.5 Communication, knowledge management, and knowledge products

Finding 32. Understanding among stakeholders of the project's aims, results and components was good and the project's communication and knowledge products have the potential to support the sustainability and scaling up of project results (EQ 10.1, 10.2).

154. Generally, stakeholder engagement was effective and resulted in a high level of awareness of the GEF project and its aims, results and key messages. This included among stakeholders interviewed at the county and village level. The evaluation team heard a consistent message during these interviews that the GEF project had changed people's perceptions and that biodiversity and ecological management were now widespread considerations in addition to previous practices

(such as dam construction). Understanding of the project among provincial government stakeholders was high.

155. The project effectively compiled and disseminated information and best practices that were gained (as summarized under Outcome 2.4 in Appendix 5). This will be important in replicating the activities and practices within and beyond the two pilot provinces and approaches to using the information and best practices after the project is completed should be included in the sustainability plan that is to be finalized.

E. RATING FOR FACTORS AFFECTING PERFORMANCE

E1. Project design and readiness: Moderately satisfactory. The project was developed in consideration of national priorities and added significant value to government reform processes; however, there were some shortcomings in the design and the Results Matrix.

E2 Quality of project implementation: Satisfactory.

E2.1 Quality of project implementation by FAO: Satisfactory. The FAO effectively delivered oversight, supervision and backstopping during most of the project, although there were shortcomings in the early years.

E2.1 Project oversight: Satisfactory. Project oversight has been strong after shortcomings in the early years.

E3. Quality of project execution by MWR: Satisfactory. The MWR effectively discharged its role and responsibilities related to the management and administration of the project.

E4. Financial management and co-financing: Satisfactory. Actual co-financing significantly exceeded the sum committed and the national, provincial and county governments made critical contributions. Only 82.6 percent of GEF funds were expended by 30 June 2022.

E5. Project partnerships and stakeholder engagement: Satisfactory. The project developed strong partnerships, especially through implementation of the River and Lake Chief System and the involvement of experts; only one university in each province was prominently involved and partnerships with domestic NGOs, CSOs and the private sector were limited.

E6. Communication, knowledge management and knowledge products: Satisfactory. Stakeholder engagement was generally effective and resulted in a high level of awareness of the GEF project and its aims; a communication strategy was developed in 2019 and revised in 2021.

E7. Overall quality of M&E: Moderately satisfactory

E7.1 M&E design: Moderately satisfactory. The M&E plan at project endorsement was generally practical and sufficient, although the M&E budget was high, the Results Matrix was large and confusing and there were no gender-disaggregated targets.

E7.2 M&E implementation plan: Moderately satisfactory. M&E was implemented in accordance with the M&E plan, although there were shortcomings in the quality of reporting against indicators and in the timely completion of the tracking tools and their use to track the project's progress.

E8. Overall assessment of factors affecting performance: Satisfactory.

3.6 Cross-cutting concerns

3.6.1 Gender

Finding 33. The project design contained no actions and only one target that addressed gender issues, and implementation and reporting had limited consideration of gender participation (EQ 7.1).

156. This GEF-5 project did not undertake a gender analysis (as this was not required at the time) and did not include any specific actions that addressed gender issues. There is one relevant target (for Output 3.3.5) in the Results Matrix but, as described under Finding 25, this target is not quantitative.
157. Some efforts were made to consider gender during project implementation, although this was limited. Reporting on a small number of training events included gender-disaggregated attendance data and some training targeted women (see Output 3.3.5 in Appendix 5).
158. Women were prominent in the River and Lake Chief System at the village level, with many women having the role of River and Lake Chief at this level, although data on this was not provided. The evaluation team interviewed three river chiefs at the village level, all of whom were women.
159. The project would have benefited greatly from a gender analysis and gender mainstreaming plan being undertaken during implementation to focus better on opportunities to address gender issues.
160. There is an opportunity to include gender-related activities in the project's sustainability plan to ensure that gender issues are considered after project completion (see Recommendation 3).

3.6.2 Minority groups, including indigenous peoples, disadvantaged, vulnerable and people with disabilities, and youth

Finding 34. The project design contained no actions and only one target that considered the needs of ethnic minorities, and implementation and reporting had some consideration of ethnic minorities.

161. As with gender considerations (see Finding 33), there were no specific actions that addressed ethnic minorities and only one relevant target, and this target was not quantitative (see Output 3.3.5 in Appendix 5). This is surprising, because the Project Document provides background information on ethnic minorities in the pilot areas and states that consultations with ethnic minorities were conducted.
162. During implementation, the project gave some consideration to the relevant customs of ethnic minorities, such as language and livelihood, to assist the project to meet its goals. Also, the communication strategy included consideration of ethnic minorities.
163. Despite this, evidence of involvement of ethnic minorities was limited. Reporting on a small number of training events included data on the attendance of ethnic minorities and some training targeted ethnic minorities (see Output 3.3.5 in Appendix 5). Also, some representatives of ethnic minority groups are involved in the River and Lake Chief System at the village level; the evaluation team interviewed two such representatives in Yunnan, and received favourable feedback on the project's contribution.

3.6.3 Environmental and social safeguards

Finding 35. Project design and implementation did not address any environmental or social safeguards (EQ 6.1).

164. During the design of this GEF-5 project, a brief environmental impact assessment was undertaken, which concluded that “The project will have minimal or no adverse environmental impacts” (see Section 3.1 of the Project Document). There was no assessment of social impact in the Project Document. Consequently, the design contained no associated actions or safeguards.
165. In 2016, a project Environmental and Social Screening (ESS) Checklist was completed and this also identified no risks or issues to address and the project was classified “Low” risk. However, the evaluation team identified shortcomings regarding consideration of ethnic minorities in this assessment, with the following answers given under ESS 9:
- answered “No” to the question “Are there any indigenous communities in the project area?”², despite several ethnic minority groups being known to live in the areas;
 - answered “Not applicable” to the question “Are project activities likely to have adverse effects on indigenous peoples’ rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible)?”, despite ethnic minorities being present; and
 - answered “No” to the question “Designed to be sensitive to cultural heritage issues?”, despite the Project Document stating that there was consultation with ethnic minorities during project design.
166. The first two of these questions are identified as “show stopper” questions in the ESS Checklist, which means that “if any issues are identified in answering these questions then the project is no longer a low risk project” and it should be “brought to the attention of the relevant technical divisions and the ESM unit”. The evaluation team considers that these two “show stopper” questions were not answered accurately and, therefore, that the project should not have been assessed as Low risk and should have received further assessment.
167. The overall Environmental and Social Risk classification from the 2016 ESS was assessed regularly as part of PIRs and PPRs; it was determined in each of these that the original classification (Low) was still valid. Documentation of this validation process in the PIRs and PPRs is brief. The evaluation team was advised that the process involved the PIRs and PPRs being used to identify any risks and the PSC then discussing these risks; because no additional relevant risks were identified, the previous assessment was considered to be still valid throughout the project. A full reassessment of the ESS was not conducted during implementation.
168. Given the long period of project implementation, the significant social and political changes that occurred since the project was designed, and the significant evolution in expectations for social and environmental safeguards in GEF projects during that time, it would have been preferable for

²The term “Indigenous people” is rarely used in China; however, the GEF Policy on Environmental and Social Safeguards (2019) uses a broad and inclusive definition of “Indigenous Peoples”, which includes “... people belonging to a distinct social and cultural group” according to several criteria, including “(ii) collective attachment to geographically distinct habitats, ancestral territories, or areas of seasonal use or occupation, as well as to the natural resources in these areas” and “(iv) a distinct language or dialect, often different from the official language or languages of the country or region in which they reside.” For this reason, the evaluation team considers that the various ethnic minority groups that are present should be included in the impacts of assessment of impacts on Indigenous Peoples.

a more rigorous environmental and social assessment to have been conducted during implementation.

169. Finally, it should be noted that the MTR did not identify the shortcomings regarding consideration of ethnic minorities in the ESS, finding that the project “continues to conform with the environmental and social standards established ... in the ESS” and making no relevant recommendations. This is unfortunate, because the MTR would have been a timely opportunity to trigger a fresh approach by the project to the assessment of social impacts and opportunities.

F. RATINGS FOR CROSS-CUTTING CONCERNS

F1. Gender and other equity dimensions: Moderately satisfactory. The project design contained no actions and only one non-quantitative target that addressed gender issues; implementation and reporting had some consideration of gender participation.

F2. Human rights issues/Indigenous peoples: Moderately satisfactory. The project design contained no actions and only one target that considered the needs of ethnic minorities and the Environmental and Sustainability Screening (ESS) checklist had shortcomings regarding ethnic minorities; implementation and reporting had some consideration of ethnic minorities.

F2. Environmental and social safeguards: Moderately satisfactory. There were no relevant actions or safeguards in the project because it was assessed during design as being unlikely to have adverse environmental or social impacts.

OVERALL PROJECT RATING

Overall project rating: Satisfactory. This is calculated using the GEF protocol based on relevance, effectiveness and efficiency.

4. Conclusions and recommendations

4.1 Conclusions

Conclusion 1. The activities and trials in the pilot rivers contributed to long-term positive impacts on river health, management and monitoring for approximately one million people in 18 towns and townships along 304 km of river with a total watershed area of nearly 5,000 km².

170. Village beneficiaries who were interviewed understood the contributions of the GEF project to these positive impacts and to improving the awareness and appreciation of biodiversity within the communities. Beneficiaries also spoke of anecdotal observations about improved river health, especially relating to fish numbers and fish species present.

Conclusion 2. The project completed a comprehensive and high-quality process of mainstreaming biodiversity into key water resources policy, regulations and legal stipulations at national, provincial, prefectural and county levels.

171. This complex mainstreaming exercise was coordinated by MWR, informed by various experts, and built on strong working relationships between PMOs and water resources agencies at different levels.

Conclusion 3. The project has learned valuable lessons and developed practices that should be replicated in other provinces.

172. The project was complex and different interventions were used in the two pilot provinces and on the pilot rivers, based on their respective situations and needs. This was important in showing that a “one size fits all” approach is not appropriate and that interventions should be tailored for different provinces.

Conclusion 4. Most of the project’s results are likely to continue after project completion, although there are risks to sustainability from the ongoing availability of technical biodiversity support to stakeholders and programmes.

173. The key approach of this GEF project was to influence China’s water resources policy, planning and on-ground activities by providing biodiversity expertise, information and capacity building. This was a cost-effective strategy that added significant value to a substantial body of work that was delivered through co-financing.

174. There is a risk after project completion that some of the biodiversity gains will be less assured if ongoing technical support is not available for continuing initiatives such as the River and Lake Chief System and the monitoring and management of hydropower dam e-flows.

Conclusion 5. Although the project had a high level of achievement, the reporting for the terminal evaluation had shortcomings and the evaluation team found it difficult to clearly assess evidence and understand the progress against each indicator and component.

4.2 Recommendations

175. The suggested responsibility is provided in parentheses after each recommendation (see list of Abbreviations) and a suggested timescale (immediate, medium term or long term) is also provided.

Recommendation 1. Replicate the activities and practices developed in the project in other counties and rivers in the pilot provinces (Yunnan and Chongqing) to improve the results achieved under this project. (MWR, Yunnan Department of Water Resources, Chongqing Department of Water Resources). Immediate.

176. Many of the activities and practices developed in this project have the potential to be scaled up and replicated and the communication and knowledge products developed should assist with this.
177. Some replication has already occurred beyond the scope outlined in the Project Document, such as in the extensive application of the River and Lake Health Assessment and biodiversity monitoring in rivers in Yunnan and Chongqing other than the pilot rivers.
178. Significant opportunities exist with Yunnan and Chongqing to further replicate these activities and practices. Given the skills and knowledge that are in these provinces due to the project, it would be timely to systematically roll out key activities and practices across these provinces.

Recommendation 2. Replicate the activities and practices developed in the project in other provinces, using approaches designed for the relevant provinces' situations and needs. (MWR, FAO). Medium term.

179. Significant opportunities also exist to replicate in other provinces the activities and practices developed in the project. The approaches to be used should be designed for the relevant provinces' situations and needs, rather than using a single approach in all provinces. Important lessons can be learned from the two pilot provinces in this project, which had very different situations and needs and therefore adopted different approaches.
180. As a minimum, this recommendation should comprise information and training sessions to share the project's experiences and best practices with representatives from other provinces. Ideally, opportunities for funding and collaboration should also be proactively pursued. This may also require direct discussions with provinces to discuss what approaches may be suitable for them, considering their situations and needs.
181. As the lead water resources management agency in China and the OP for this project, MWR should lead on this recommendation. This may initially include collating information, assessing the feasibility of different approaches in different settings, identifying stakeholders from other provinces to engage in discussions, and convening stakeholders. Given the effectiveness of MWR's lead role in this project, it may also be the appropriate lead agency for any major initiative that involves replication in other provinces.
182. FAO can contribute to this recommendation by playing a facilitative role: assisting to convene stakeholders, encouraging shared reflection on the learnings from the project and this evaluation, jointly identifying opportunities for replication and scaling up, fostering partnerships, and jointly pursuing funding opportunities if appropriate.
183. The Yunnan and Chongqing Water Resources Bureaus may also be involved in this process, given their extensive experience from this project.

Recommendation 3. Revise the project’s sustainability plan to identify how replication of activities and practices within and beyond the pilot provinces should be progressed, document how sustainability challenges relating to financing and technical support will be addressed, and indicate FAO’s role in implementation of the plan. (PMO, MWR, FAO). Immediate.

184. A draft sustainability plan / exit strategy has been prepared and this should be finalized to address replication opportunities and sustainability challenges that have been identified.
185. Replication of the project’s activities and practices within and beyond the pilot provinces should be included in the sustainability plan, to identify key opportunities, responsibilities, partnerships and next steps (see Recommendations 1 and 2).
186. Although most results of the project are likely to be sustainable, the evaluation identified two areas in which there were risks to results being sustained: allocation of financing and availability of sufficient financing for infrastructure, and ongoing provision of technical support in biodiversity mainstreaming and aquatic ecology to the diverse stakeholders, processes and programmes that the project was involved with. These should also be addressed by the sustainability plan.
187. It is important that FAO participates in development of the sustainability plan and that the plan identifies FAO’s role in implementation. Also, because there are several FAO-GEF projects in China that have recently closed or are scheduled to close in 2023, FAO should analyse findings from terminal evaluations and sustainability plans to identify commonalities and synergies, define any systemic issues to address, and consider consolidating sustainability action items into an action plan to ensure systematic follow up.
188. Gender issues could also be included in the sustainability plan to ensure that gender issues are considered after project completion, given that there was no gender analysis or gender mainstreaming plan during project design or implementation (Finding 33).

Recommendation 4. For future projects, ensure that project reporting and evidence clearly address a project’s targets and indicators to ensure accountability and maximize transparency for project donors. (MWR, FAO). Medium and long term.

189. To provide transparency and accountability for project donors, it is important that a project’s results are clearly demonstrated through the provision of evidence of deliverables and outputs. The Results Matrix is a key part of this reporting and accountability. With 45 indicators and confusing relationships between outcomes and outputs, the Results Matrix for this project was difficult to report against and understanding project progress and deliverables was challenging. The reporting in PIRs and the self-assessment report for many outputs did not directly address the relevant indicator or target; in these cases, the assessment of achievement was difficult and the evaluation team was frequently required to request additional evidence. Projects should define early how each indicator will be measured and reported against, how success will be assessed, whether baselines are clearly established, and whether changes should be made to the Results Matrix.

Recommendation 5. For future projects, prepare comprehensive and concise reporting and evidence against each target (including documents, data, tracking tools and other information) in a timely manner for MTRs and TEs. (MWR, FAO). Medium and long term.

190. The evaluation team received the self-assessment report soon after commencing this TE, which augmented other reporting, especially the PIRs and PPRs. In the self-assessment report, reporting against many of the indicators in the Results Matrix was incomplete or did not sufficiently address the wording of the indicator and/or target; lists of reports and other documents did not align well

with outputs and there was little evidence to support reported achievements against quantitative targets. Evidence of achievements was gradually accumulated during the evaluation using a diverse range of sources. Initially, few of the reported documents were provided to the evaluation team, due partly to strict controls on the release of electronic documents. Also, quantitative reporting was variable and seemed ad hoc. For future projects, it is important that projects agree early on how each indicator and target will be measured and verified and that evidence is gathered in a timely manner before commencement of the MTR and TE. This should include obtaining early the necessary clearance for the release of relevant documents.

191. Also, as described under Findings 8 and 26, there were shortcomings in the timely completion of the GEF tracking tools and in their use to track the project's progress. These important reporting tools should be prepared in a timely manner and should provide adequate information to inform the MTR and TE.

Recommendation 6. For future projects, adopt a systematic and transparent approach to the regular reassessment of environmental and social impacts to ensure that projects do not continue to operate according to assessments that are dated and do not meet current expectations. (FAO, PMOs). Medium and long term.

192. The evaluation team found shortcomings in the completion of the ESS Checklist in 2016, especially regarding the consideration of ethnic minorities, that a questionable "Low" risk rating was assigned as a consequence and that this "Low" rating was confirmed annually as part of each PIR (Finding 35). A full reassessment of the ESS Checklist was not conducted during implementation. In addition, the Project Document included a brief environmental impact assessment that concluded there would be no environmental impact, but included no social impact assessment.
193. Consequently, the project is operating according to brief environmental and social impact assessments that were conducted more than six years ago. Ethnic minorities are present at several project locations, yet they were not considered in these assessments and this shortcoming was not identified during implementation or as part of the MTR. It is important that projects genuinely and transparently reassess environmental and social impacts during implementation, rather than continuing to operate according to dated assessments. A more thorough reassessment would have been more likely to identify shortcomings (such as the omission of ethnic minorities from consideration), rather than simply confirming the risk rating as part of the PIRs.
194. An important component of this recommendation would be ongoing support and training from FAO HQ and RAPs to country offices and PMOs, to improve and update knowledge in ESS issues and assessments and to foster a culture of continuous improvement within projects rather than relying on dated assessments and assumptions.

Recommendation 7. Establish a bird monitoring system along Chuan River in Jingdong County, Yunnan Province. (PMO). Immediate.

195. Output 2.2.5 included the target "Enhanced habitat for and increasing population of aquatic birds as measured by bird monitoring system ...", relating to wetland restoration and tree restoration along the Chuan River. However, a bird monitoring system was not established. Given that anecdotal reports were provided of several bird species being newly recorded in Jingdong County and that this may relate to improved river health, it is recommended that a monitoring system be established to enable systematic recording of such trends.

Recommendation 8. Share experiences and lessons learned in indirect project execution in China with other FAO country offices and teams that are planning and implementing OPIM projects. (FAO CO). Immediate and medium term.

196. FAO China office now has extensive experience with indirect execution and OPIM, from five “pre-OPIM” projects and from this and other OPIM projects. It would be valuable for them to share their experiences and lessons learned with other FAO country offices and teams. This may include approaches such as workshops, webinars, or case studies in written or video form. This is discussed further under Lesson 1.

5. Lessons learned

Lesson 1: The OPIM model was successfully applied in this project because the relevant FAO teams now have extensive experience in indirect execution and the Operational Partner had appropriate capacity and capability (EQ 5.8).

197. Clear benefits were identified from the OPIM modality, especially increased government ownership and capacity, leading to increased likelihood of sustainability of results. Furthermore, MWR efficiently met its requirements under the OPA. For these reasons, OPIM can be considered to have been successfully applied in this project.
198. The project was an early adopter of the OPIM modality and of using MS701/OPIM to negotiate an OPA. It followed five other FAO GEF projects in China that adopted a “pre-OPIM” indirect execution modality, prior to issuance of MS701/OPIM and OPIM becoming operational at FAO. It was, therefore, part of an ongoing learning experience for Chinese agencies and for FAO China. Consequently, negotiating an OPA that adequately covered all the requirements of indirect execution was challenging and early errors were made that required protracted renegotiations and led to a project delay (as described under Finding 14).
199. With this project, the OPA was implemented efficiently and the MWR had appropriate capacity and capability to meet their responsibilities under the OPA. This is in contrast to the findings from a recent evaluation of the FAO-GEF project “Securing Biodiversity Conservation and Sustainable Use in Huangshan Municipality” (GCP/CPR/049/GFF), which was delivered in China under a pre-OPIM modality, in which substantial shortcomings were identified in the capacity and capability of the executing partner, a municipal reserve management bureau, to meet requirements under the pre-OPIM modality. As a large national ministry, MWR had the capacity and human resources required in this project.
200. Importantly, the efforts of FAO teams (including the CO, GCU and OPIM office) over several years to establish and continuously improve indirect execution in China has been a major contributor to the successful application of OPIM in this project.
201. FAO China office now has extensive experience with indirect execution and OPIM, from the five “pre-OPIM” projects and from this and other subsequent OPIM projects. It would be valuable for the CO to share their experiences and lessons learned with other FAO country offices and teams that are planning and implementing OPIM projects (see Recommendation 8).

Lesson 2: The project demonstrated good practice in optimizing cooperation between multiple departments at different levels to improve delivery by enhancing the project’s enabling environment.

202. The project successfully fostered cooperation between different departments with responsibilities for water health protection, especially under the multi-level River and Lake Chief System; this optimized these working mechanisms and strengthened overall project effectiveness and efficiency by enhancing the enabling environment.

Lesson 3: To enable a thorough and accurate evaluation, evaluators require timely and comprehensive reporting against progress, supported by evidence that is logically presented and clearly aligned with indicators and targets.

203. The end-of-project progress reporting received by the evaluation team was confusing, incomplete and, for some indicators, lacking in evidence, therefore it was difficult and time-consuming to understand what was delivered for the 45 outputs and to align evidence against the targets. This

means that the project's good performance was obscured by reporting shortcomings and there was a risk that the evaluators' conclusions would not have been an accurate reflection of the project's achievements.

Lesson 4: To fully realize the intended benefits from GEF funding of sharing knowledge, finding synergies and building partnerships, it is important that OPs implement the complementarity mechanisms identified and that FAO oversight includes scrutiny of whether such mechanisms are being implemented.

204. There was no evidence provided of complementarity with other GEF-funded projects in China during implementation, despite this being outlined in the Project Document (see Finding 5). This represents a missed opportunity to share lessons, seek synergies and build networks and partnerships in China, which were important intended benefits from the GEF funding for the various projects that were being implemented. Because such coordination and collaboration mechanisms are often not included in a project's deliverables or Results Matrix, they are often overlooked during implementation, reporting and oversight. Therefore, to fully realize the intended benefits from GEF funding of sharing knowledge, finding synergies and building partnerships, it is important that OPs implement the complementarity mechanisms identified and that FAO oversight includes scrutiny of whether such mechanisms are being implemented.

References

FAO. 2017. Guidelines for the assessment of gender mainstreaming. Rome, FAO. (Also available at <https://www.fao.org/publications/card/fr/c/5e86b58b-ab7d-42bd-bd93-e9274ab011cd/>).

FAO. 2019a. OED project evaluation manual for decentralized offices – Planning and conducting project evaluations under Budget Holder’s responsibility. Rome, FAO. (Also available at <https://www.fao.org/3/ca4821en/ca4821en.pdf>).

FAO. 2019b. OED Capacity Development Evaluation Framework. Rome, FAO. (Also available at <http://www.fao.org/3/ca5668en/ca5668en.pdf>).

FAO. 2020. Mid-term review of “A new green line: mainstreaming biodiversity conservation objectives and practices into China’s water resources management policy and planning”. Rome, FAO.

GEF. 2017. Guidelines for GEF Agencies in conducting Terminal Evaluation for Full-Size Projects. (also available at <https://www.gefio.org/evaluations/gef-guidelines-te-fsp-2017>).

GEF. 2019. Policy on Environmental and Social Safeguards. (also available at <https://www.thegef.org/documents/environmental-and-social-safeguard-standards>).

UNEG. 2016. Norms and Standards for Evaluation. United Nations Evaluation Group. (Also available at <http://www.unevaluation.org/document/detail/1914>).

UNEG. 2020. UNEG Ethical Guidelines for Evaluation. United Nations Evaluation Group. (Also available at <http://www.unevaluation.org/document/detail/2866>).

Appendix 1. People interviewed

First Name	Last Name	Position	Organization	Location
National level				
Liqun	Huang	Division Director	Department of Water Resources Management, MWR	Beijing
Jingjun	Peng	Deputy Division Director	Department of International Cooperation, Science and Technology, MWR	Beijing
Hai	Jin	Director General	MWR PMO	Beijing
Jiang	Zhu	Project Manager, Deputy Director General	MWR PMO	Beijing
Wenjun	Hu	Project Coordinator, Division Director	MWR PMO	Beijing
Bo	Liu	M&E Officer, Deputy Division Director	MWR PMO	Beijing
Zhiran	Xia	Information Officer, Engineer	MWR PMO	Beijing
Peng	Xia	Division Director	Development Research Centre of MWR	Beijing
Jia	Sun	Senior Engineer	Development Research Centre of MWR	Beijing
Liyang	Guo	Engineer	Development Research Centre of MWR	Beijing
Bo	Yang	Freshwater Director	TNC	Beijing
Xiaodong	Qu	Technical service provider	China Institute of Water Resources and Hydropower Research	Beijing
Kewang	Tang	National Technical Advisor	MWR	Beijing
Local level - Yunnan Province				
Bogen	Li	Director, member of PSC	Department of Hydrology and Water Resources in Yunnan Province	Kunming, Yunnan
Jiao	Ding	Deputy Director of River Chief System	Department of Hydrology and Water Resources in Yunnan Province	Kunming, Yunnan
Shupeng	Wang	Deputy Director of Agriculture and Water	Department of Hydrology and Water Resources in Yunnan Province	Kunming, Yunnan
Ruojia	Pei	Deputy Director of Science and Cooperation	Department of Hydrology and Water Resources in Yunnan Province	Kunming, Yunnan
Xiaoxia	Huang	Subcontractor in Yunnan Province	Yunnan University	Kunming, Yunnan

First Name	Last Name	Position	Organization	Location
Zhikun	Wu	Director	Zhenyuan County Water Affairs Bureau and County River Chief System Office	Zhenyuan County, Pu'er Municipality, Yunnan
Fuwei	Li	Deputy Director	Zhenyuan County Water Affairs Bureau, County River Chief System Office	Zhenyuan County, Pu'er Municipality, Yunnan
Ling	HU	Staff	GEF Zhenyuan County Project Office	Zhenyuan County, Pu'er Municipality, Yunnan
Yanmei	Xu	Secretary	General Branch of Qinlao Village, Zhenyuan County (Bu Mahe Village Head)	Zhenyuan County, Pu'er Municipality, Yunnan
Ju	Wang	Villager representative	Chagou Group, Bolie Village, Zhenyuan County	Zhenyuan County, Pu'er Municipality, Yunnan
Min	Li	Village Leader	Hekou Formation, Bolie Village, Zhenyuan County	Zhenyuan County, Pu'er Municipality, Yunnan
Xiaowei	Shang	Staff	River Chief System in Zhenyuan County	Zhenyuan County, Pu'er Municipality, Yunnan
Zhengrong	Luo	Deputy Director	Zhenyuan Branch of Municipal Ecological Environment Bureau and County Chief System Office	Zhenyuan County, Pu'er Municipality, Yunnan
Wenchun	Zi	Secretary	Party Leadership Group of Jingdong County Water Affairs Bureau	Jingdong County, Pu'er Municipality, Yunnan
Ruchu	Zhang	Staff	Jingdong County Water Affairs Bureau, Head of GEF Jingdong County Project Office	Jingdong County, Pu'er Municipality, Yunnan
Zhonghai	Yang	Staff	GEF Jingdong County Project Office	Jingdong County, Pu'er Municipality, Yunnan
Jihai	Qin	Director	Jingdong Branch of Municipal Ecological Environment Bureau	Jingdong County, Pu'er Municipality, Yunnan
Hengmei	Luo	Secretary	General Branch of Jingfan Village, Jingdong County	Jingdong County, Pu'er Municipality, Yunnan
Local level - Chongqing Municipality				
Zhihong	Luo	Second Level Director of the Bureau, member of PSC	Chongqing Municipal Water Resources Bureau	Chongqing
Zhanbo	Liu	Head of department	Science and Technology Division of Chongqing Municipal Water Resources Bureau	Chongqing
Yang	Li	Second Level Senior Manager	Science and Technology Division of Chongqing Municipal Water Resources Bureau	Chongqing
Zhenfeng	Qiu	Doctor	Science and Technology Division of Chongqing Municipal Water Resources Bureau	Chongqing
Songqing	Tan	First Level Senior Manager	Agricultural Water and Hydropower Division of	Chongqing

First Name	Last Name	Position	Organization	Location
			Chongqing Municipal Water Resources Bureau	
Zhiwei	Gong	Senior Manager Level 4	River Head System Office of Chongqing Municipal Water Resources Bureau	Chongqing
Ziyang	Qiu	Commissioner General I	Policy and Regulation Division of Chongqing Municipal Water Resources Bureau	Chongqing
Weizhen	Xu	Staff	Water Resources Management Division of Chongqing Municipal Water Resources Bureau	Chongqing
Zexiu	Jiang	First Level Senior Manager	River Channel Management Division of Chongqing Municipal Water Resources Bureau	Chongqing
Yu	Gao	Third Level Supervisor	Planning Division of Chongqing Municipal Water Resources Bureau	Chongqing
Qingchun	Huang	First Level Senior Manager	Chongqing Municipal Rural water and Hydropower Centre	Chongqing
Qiang	Wang	Associate Professor	Southwest University	Chongqing
Linghe	Wang	Postgraduate	Southwest University	Chongqing
Hu	Cheng	Senior Engineer	Chongqing Municipal Hydropower Design Institute	Chongqing
Yao	Li	Engineer	Chongqing Municipal Hydropower Design Institute	Chongqing
Xiang	Yi	Assistant Engineer	Chongqing Municipal Hydropower Design Institute	Chongqing
Zhidong	Hu	Senior Engineer	Chongqing Municipal Yufa Institute of Water Sciences	Chongqing
Xiaobo	Qi	Deputy Director	Banan District Water Resources Bureau	Banan District, Chongqing
Chunling	Guo	Head of Water Resources Department	Water Resources Section of Banan District Water Resources Bureau	Banan District, Chongqing
Jiping	Hu	Staff	Water Resources Section of Banan District Water Resources Bureau	Banan District, Chongqing
Xingmao	Wu	Staff	Water Resources Section of Banan District Water Resources Bureau	Banan District, Chongqing
Zhongyun	Shen	Staff	Water Resources Section of Banan District Water Resources Bureau	Banan District, Chongqing
Xiaolong	Zhang	Staff	River Head Office of Banan District Water Resources Bureau	Banan District, Chongqing
Zhedang	Tan	Stationmaster	Hydrological Station of Banan District Water Resources Bureau	Banan District, Chongqing
Xiaoqiu	Li	Wubu River Town-Level River Chief	Dongwenquan Town	Banan District, Chongqing

First Name	Last Name	Position	Organization	Location
Lei	Wang	Deputy Director	Jiangjin District Water Resources Bureau	Jiangjin District, Chongqing
Guohong	Mu	Head of Water Resources Department	Jiangjin District Water Resources Bureau	Jiangjin District, Chongqing
Li	Yang	Second Level Senior Manager	Science and Technology Division of Chongqing Municipal Water Resources Bureau	Jiangjin District, Chongqing
Shengxian	Cao	Section Chief	Jiangjin District Bureau of Ecological Environment	Jiangjin District, Chongqing
Cheng Gang	Su	Researcher	Jiangjin District Agriculture and Rural Committee	Jiangjin District, Chongqing
Hu	Cheng	Senior Engineer	Chongqing Municipal Hydropower Design Institute	Jiangjin District, Chongqing
Li Ling	Dai	Tanghe town-level River Chief	Tanghe town	Jiangjin District, Chongqing
FAO				
Yurie	Naito	FLO	FAO HQ	Rome
Li	He	LTO	FAO Regional Office for Asia and the Pacific	Bangkok
Carlos	Watson	Budget Holder	FAO China	Beijing
Zhao	Wei	GEF Portfolio Manager	FAO China	Beijing

Appendix 2. GEF evaluation criteria rating table

GEF criteria/sub-criteria	Rating ³	Summary comments
A. STRATEGIC RELEVANCE		
A1. Overall strategic relevance	S	
A1.1. Alignment with GEF and FAO strategic priorities	S	The project aligned with GEF and FAO strategic priorities at the time of design and at completion.
A1.2. Relevance to national, regional and global priorities and beneficiary needs	HS	The project was highly relevant to national, regional and global priorities.
A1.3. Complementarity with existing interventions	MS	The project design was based on detailed analysis of current knowledge and sought synergies with other GEF projects in China; during implementation, there was little complementarity with other external donor projects, although some complementarity in protection of shared river basins was developed with international stakeholders.
B. EFFECTIVENESS		
B1. Overall assessment of project results	S	
B1.1 Delivery of project outputs	S	The project delivered most outputs and met most associated indicators.
B1.2 Progress towards outcomes and project objectives		
- Objective	S	The project made very good progress towards the objective.
- Component I	HS	The project was highly successful at changing the institutional and planning framework for mainstreaming biodiversity into water resources management at national, provincial and local levels. This is rated HS because there were no shortcomings and the complex work was completed to a high standard.
- Component II	S	The project effectively demonstrated on-the-ground biodiversity activities in pilot rivers and contributed to implementation of the River and Lake Chief System in the pilot locations.
- Component III	S	The project successfully improved knowledge and information systems on river biodiversity, including monitoring systems and GIS databases, and provided extensive training to many stakeholders.
- Overall rating of progress towards achieving objectives/outcomes	S	
B1.3 Likelihood of impact	S	The project's investments in biodiversity mainstreaming at multiple levels, improved partnerships, long-term monitoring, documentation of best practices, extensive training, and improved information systems mean that impacts are likely.
C. EFFICIENCY		
C1. Efficiency	S	The project was very cost effective and delivered efficiently after delays during the first two years.

³ See rating scheme in Appendix 3.

GEF criteria/sub-criteria	Rating ³	Summary comments
D. SUSTAINABILITY OF PROJECT OUTCOMES		
D1. Overall likelihood of risks to sustainability	L	The project's interventions have been well targeted on biodiversity mainstreaming at multiple levels, improved partnerships, establishment of long-term monitoring, documentation of best practices, extensive training, and improved information systems; risks to sustainability arise from challenges with financing and the ongoing availability of technical support to stakeholders and programmes.
D1.1. Financial risks	ML	There is regular financing but there are risks with the appropriate allocation of that financing; also, there will be demands to enhance financing for infrastructure (including data and M&E systems) at the provincial level.
D1.2. Socio-political risks	L	The project is very consistent with national political priorities, therefore it has strong support at all levels of government. There is some risk that county, township and village stakeholders may not continue to consider biodiversity if the provision of technical awareness raising and training does not continue.
D1.3. Institutional and governance risks	L	The River and Lake Chief System is a positive fundamental institutional and governance reform and this will continue as a central government priority and, therefore, as a priority for all levels of government.
D1.4. Environmental risks	L	There are no significant environmental risks to the sustainability of project results.
D2. Catalysis and replication	S	The project components that involved replication have been effectively delivered; there has also been some additional catalysis and replication within the pilot provinces, such as in the application of the River and Lake Health Assessment and biodiversity monitoring in other rivers.
E. FACTORS AFFECTING PERFORMANCE		
E1. Project design and readiness	MS	The project was developed in consideration of national priorities and added significant value to government reform processes; however, there were some shortcomings in the design and the Results Matrix.
E2. Quality of project implementation	S	
E2.1 Quality of project implementation by FAO (BH, LTO, PTF, etc.)	S	The FAO effectively delivered oversight, supervision and backstopping during most of the project, although there were shortcomings in the early years.
E2.1 Project oversight (PSC, project working group, etc.)	S	Project oversight has been strong after shortcomings in the early years.
E3. Quality of project execution by MWR	S	The MWR effectively discharged its role and responsibilities related to the management and administration of the project.
E4. Financial management and co-financing	S	Actual co-financing significantly exceeded the sum committed and the national, provincial and county governments made critical contributions. Only 82.6% of GEF funds were expended by 30 June 2022.

GEF criteria/sub-criteria	Rating³	Summary comments
E5. Project partnerships and stakeholder engagement	S	The project developed strong partnerships, especially through implementation of the River and Lake Chief System and with universities and other institutes; only one university in each province was prominently involved and partnerships with domestic NGOs and CSOs were limited.
E6. Communication, knowledge management and knowledge products	S	Stakeholder engagement was generally effective and resulted in a high level of awareness of the GEF project and its aims; a communication strategy was developed in 2019 and revised in 2021.
E7. Overall quality of M&E	MS	
E7.1 M&E design	MS	The M&E plan at project endorsement was generally practical and sufficient, although the M&E budget was high, the Results Matrix was large and confusing and there were no gender-disaggregated targets.
E7.2 M&E implementation plan (including financial and human resources)	MS	M&E was implemented in accordance with the M&E plan, although there were shortcomings in the quality of reporting against indicators and in the timely completion of the tracking tools and their use to track the project's progress.
E8. Overall assessment of factors affecting performance	S	
F. CROSS-CUTTING CONCERNS		
F1. Gender and other equity dimensions	MS	The project design contained no actions and only one non-quantitative target that addressed gender issues; implementation and reporting had some consideration of gender participation.
F2. Human rights issues/Indigenous peoples	MS	The project design contained no actions and only one target that considered the needs of ethnic minorities and the Environmental and Sustainability Screening (ESS) checklist had shortcomings regarding ethnic minorities; implementation and reporting had some consideration of ethnic minorities.
F2. Environmental and social safeguards	MS	There were no relevant actions or safeguards in the project because it was assessed during design as being unlikely to have adverse environmental or social impacts.
Overall project rating	S	

Appendix 3. Rating scheme

PROJECT RESULTS AND OUTCOMES

Project outcomes are rated based on the extent to which project objectives were achieved. A six-point rating scale is used to assess overall outcomes:

Rating	Description
Highly Satisfactory (HS)	Level of outcomes achieved clearly exceeds expectations and/or there were no shortcomings.
Satisfactory (S)	Level of outcomes achieved was as expected and/or there were no or minor shortcomings.
Moderately Satisfactory (MS)	Level of outcomes achieved more or less as expected and/or there were moderate shortcomings.
Moderately Unsatisfactory (MU)	Level of outcomes achieved somewhat lower than expected and/or there were significant shortcomings.
Unsatisfactory (U)	Level of outcomes achieved substantially lower than expected and/or there were major shortcomings.
Highly Unsatisfactory (HU)	Only a negligible level of outcomes achieved and/or there were severe shortcomings.
Unable to Assess (UA)	The available information does not allow an assessment of the level of outcome achievements.

During project implementation, the results framework of some projects may have been modified. In cases where modifications in the project impact, outcomes and outputs have not scaled down their overall scope, the evaluator should assess outcome achievements based on the revised results framework. In instances where the scope of the project objectives and outcomes has been scaled down, the magnitude of and necessity for downscaling is taken into account and despite achievement of results as per the revised results framework, where appropriate, a lower outcome effectiveness rating may be given.

PROJECT IMPLEMENTATION AND EXECUTION

Quality of implementation and of execution will be rated separately. Quality of implementation pertains to the role and responsibilities discharged by the GEF agencies that have direct access to GEF resources. Quality of execution pertains to the roles and responsibilities discharged by the country or regional counterparts that received GEF funds from the GEF agencies and executed the funded activities on ground. The performance will be rated on a six-point scale:

Rating	Description
Highly Satisfactory (HS)	There were no shortcomings and quality of implementation or execution exceeded expectations.
Satisfactory (S)	There were no or minor shortcomings and quality of implementation or execution meets expectations.
Moderately Satisfactory (MS)	There were some shortcomings and quality of implementation or execution more or less meets expectations.
Moderately Unsatisfactory (MU)	There were significant shortcomings and quality of implementation or execution somewhat lower than expected.
Unsatisfactory (U)	There were major shortcomings and quality of implementation or execution substantially lower than expected.
Highly Unsatisfactory (HU)	There were severe shortcomings in quality of implementation or execution .
Unable to Assess (UA)	The available information does not allow an assessment of the quality of implementation or execution .

MONITORING AND EVALUATION

Quality of project M&E will be assessed in terms of:

- i. design
- ii. implementation

SUSTAINABILITY

The sustainability will be assessed taking into account the risks related to financial, socio-political, institutional and environmental sustainability of project outcomes. The evaluator may also take other risks into account that may affect sustainability. The overall sustainability will be assessed using a four-point scale:

Rating	Description
Likely (L)	<i>There is little or no risk to sustainability.</i>
Moderately Likely (ML)	<i>There are moderate risks to sustainability.</i>
Moderately Unlikely (MU)	<i>There are significant risks to sustainability.</i>
Unlikely (U)	<i>There are severe risks to sustainability.</i>
Unable to Assess (UA)	<i>Unable to assess the expected incidence and magnitude of risks to sustainability.</i>

Appendix 4. GEF co-financing table

Materialized co-financing in USD; source: PMO.

Name of the co-financer	Co-financer type	Type of co-financing	Co-financing at project start (Amount confirmed at GEF CEO endorsement/approval by the project design team) (in USD)			Materialized co-financing at final evaluation (in USD)		
			In-kind	Cash	Total	In-kind	Cash	Total
Ministry of Water Resources	National government	Cash and in-kind			19,300,000	42,860	25,492,800	25,535,660
Yunnan Department of Water Resources	Provincial government	Cash		3,100,000	3,100,000		4,738,500	4,738,500
Chongqing Department of Water Resources	Provincial government	Cash		3,000,000	3,000,000		5,704,200	5,704,200
FAO	GEF agency	In-kind	75,000		75,000	107,141		107,141
The Nature Conservancy	NGO	In-kind	500,000		500,000	833,609		833,609
Grand total (in USD)					25,975,000			36,919,110

Appendix 5. Results Matrix showing achievements

* Italics are used to show changes to indicators and end-of-project targets endorsed by the PSC at its 2020 meeting. Under “Achievement at project end”, links are provided to some documents when available; note some of these cannot be accessed from outside China.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
Objective: To mainstream biodiversity conservation objectives and practices into China’s water resources management policy and planning						
Component I: “Changing the framework” - Institutional and planning framework for mainstreaming biodiversity into water resources management at national, provincial and local levels						
Component I achievement rating: HIGHLY SATISFACTORY						
Outcome 1.1: Mainstream biodiversity objectives and practices into key water resource management policies, planning, and legal stipulations at the national, provincial, prefecture and county/district levels						
HIGHLY SATISFACTORY						
OP 1.1.1	Gap analysis conducted at national, provincial and municipal level to identify entry points and suitable targets for mainstreaming of biodiversity (policies, development plans, laws) including a regular review of new entry points throughout the project duration	- Existing water resource management policies, plans, regulations and institutional structures do not systematically integrate biodiversity conservation in river ecosystems. While supportive of ecological priorities, the existing	Initial gap analysis conducted at national level, provincial level for two pilot provinces, and municipal level for four pilot municipalities; <i>renewal of results at a one-year interval</i>	Analysis on WRM policies for biodiversity conservation at national and provincial completed, gaps identified and recommendations made to improve the legal and regulatory framework; Special plans to protect e-flow of rivers and lakes and its supervision presented to MWR and	Target achieved. Standalone gap analysis report not prepared but gap analysis at different levels is included in various reports, including: - National level: “National-Level Policy Analysis on Water Resources Management related to Biodiversity Conservation” (2021, DRC). - Provincial level: “Summary and Recommendations on Biodiversity Conservation Pilots in the Context of River and Lake Chief System in Yunnan Province” (2021, Yunnan Institute of Water & Hydropower Engineering Investigation, Design and Research). - Provincial level: “Summary and Recommendations on Biodiversity Conservation Pilots in the Context of River and Lake Chief System in Chongqing Municipality” (2021, Chongqing Surveying and Design Institute of Water Resources, Electric Power and Architecture).	Verified by document review.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
		framework does not provide sufficient		awaiting decision. Rating: S		
OP 1.1.2	Biodiversity mainstreaming objectives and priorities incorporated into key water sector policies and plans at national level (including e.g. National Comprehensive Water Resources Plan; incl. Five Year Development Plan and Sectoral Development Plans)	support for and guidance to the mainstreaming of biodiversity conservation objectives and practices into water resources management. - Existing policy framework provides a solid basis for sound water management with regards to absolute water use, water use efficiency and water quality from a pollutant perspective ("The three red lines")	Biodiversity mainstreamed into at least 3 important national level WRM policies, plans, or laws	At the national level, recommendations made in the Analysis Report on China's Water Resources Management Policies for Biodiversity Conservation is completed. MWR formulated the 2019 Key Rivers and Lakes Ecological Flow (Water Volume) Research and Guarantee Work Plan, selecting 21 key rivers and lakes as pilots for implementation. Rating: MS	Target achieved. Biodiversity mainstreamed into 6 relevant national-level documents: - "Opinions on E-Flow Assessment and Implementation" issued by Ministry of Water Resources (2020). http://szy.mwr.gov.cn/tzgg/202004/t20200424_1401333.html - "Plan on E-flow Assessment of National Key Rivers and Lakes" (2020). http://szy.mwr.gov.cn/tzgg/202007/t20200730_1430352.html - "Notice on Strengthening E-flow Monitoring and Management of Small Hydropower Stations in the Yangtze River Economic Belt" (2019). http://www.gov.cn/gongbao/content/2020/content_5471453.htm - "Guidance on Rehabilitating the Ecosystems of Rivers and Lake". http://www.mwr.gov.cn/xw/slyw/202112/t20211229_1557462.html - "Programme on Rehabilitating the Ecosystem of Rivers and Lakes during the 14th Five Year Plan Period" (2021–25). http://www.chinawater.com.cn/newscenter/kx/202112/t20211229_777203.html	Verified by document review.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
		- Political context supportive of improvements of environmental protection in general and for river ecosystems in particular.			- "The 14th Five Year Plan for Water Security" (issued by the National Development and Reform Commission and the Ministry of Water Resources in 2021). http://www.gov.cn/xinwen/2022-01/12/content_5667722.htm ; https://www.gov.cn/xinwen/2022-01/12/5667779/files/0b9a83c065854138b782e0318e2634f2.pdf	
OP 1.1.3	Biodiversity mainstreaming objectives and priorities incorporated into key water sector policies and plans at provincial level in Chongqing and Yunnan (including e.g. Provincial Water Resources Protection Plans)		Biodiversity mainstreamed into at least 3 provincial level WRM policies, plans or law for each of the two provinces (min. 6 provincial level improvements in total)	Yunnan provincial government has issued 3 provincial water sector policies and plans, including the Yunnan Province Total Water Use Control Plan, Yunnan Province Implementation Plan for the Protection and Restoration of the Six Major River Systems focusing on the Yangtze River, and Yunnan Water Resources Protection Plan, put forward	Target achieved. Biodiversity mainstreamed into a total of 11 relevant provincial-level documents (5 for Yunnan and 6 for Chongqing): Yunnan: - "Opinions on Lake Campaign by Yunnan Government". http://www.yn.gov.cn/zwgk/zcwj/swwj/202110/t20211017_229353.html - "Implementation Details on Water Intaking Approval and Supervision in Yunnan" (trial); Articles 5 to 17 defined water intaking issues related to e-flow. http://www.ynswj.cn/news_show.aspx?id=3406 - "Water development program for revitalizing Yunnan in the 14th Five Year Plan Period". http://yndrc.yn.gov.cn/ynfzggdt/77382 - "Action Plan on Beautiful Rivers and Lakes Initiative in Yunnan Province" (2019). http://news.sohu.com/a/539664834_656503	Verified by document review.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
				<p>specific measures for ecological water demand protection, and clarified the minimum requirements for the E-flow.</p> <p>The Implementation Plan for Small Hydropower Clean-up and Rectification in the Yangtze River Economic Belt in Chongqing was issued by Chongqing Government.</p> <p>Rating: MS</p>	<p>- "Plan on the Protection and Restoration of Six Major River Systems in Yunnan Province with the Yangtze River as the Priority" (2019). http://www.ynforestry-tec.com/Article/Show/2501.html</p> <p>Chongqing:</p> <p>- "The 14th Five Year Plan for Water Ecology and Environment Protection in Chongqing". http://sthjj.cq.gov.cn/zwgk_249/zfxxgkzl/fdzdgknr/ghjh/202202/t20220216_10400261.html</p> <p>- "Chongqing River Chief Regulation" (came into force on 1 January 2021, Article 21 includes biodiversity). http://ncrb.cqncnews.com/resfile/2020-12-31/04/04.pdf</p> <p>- "Chongqing Water Pollution Prevention and Treatment Regulation" (came into force 1 October 2020; guarantees minimum e-flow during dry seasons). http://www.cqwx.gov.cn/zwgk_224/fdzdgknr/jdj/hjbh/bzml/202203/t20220323_10541433.html</p> <p>- "Chongqing Water Resource Management Regulation" (revised 2018; Article 12 requires that reasonable flow and water level be maintained during water resource utilization and development). https://www.fadada.com/notice/detail-6581.html</p> <p>- "Chongqing Water Channel Management Regulation" (Article 11 requires e-flows be kept</p>	

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
					<p>and Article 17 raises several possible ways for eco-restoration).</p> <p>https://www.fadada.com/notice/detail-6652.html</p> <p>- "Plan on Implementing E-flow in Important Rivers in Chongqing Municipality" (2020).</p> <p>http://www.cqyc.gov.cn/zwgk_204/zfxxgkmls/zcjd/wzjd_160805/202202/t20220218_10410067.html</p>	
OP 1.1.4	Biodiversity mainstreaming objectives and priorities incorporated into the water sector development plan and the river management plan at prefecture level (Pu'er prefecture & Chongqing municipality) as well as county/district level in all four pilot sites (including e.g. prefecture / municipality and county/district level water		Biodiversity mainstreamed into water sector plan as well as river management plan for each of the four pilot sites (prefecture, county / district level)	<p>Research Reports on WRM Policies for the Biodiversity Protection in both provinces are completed.</p> <p>A Notice on Strengthening the Protection of Aquatic Organisms in the Yangtze River was issued by Jiangjin district government.</p> <p>Current water resources development and river management plans of the 4 pilot counties are</p>	<p>Target achieved.</p> <p>Biodiversity mainstreamed into water sector plan and river management plans for each pilot site:</p> <p>Yunnan</p> <p>- "14th Five Year Plan for Water Security of Pu'er City".</p> <p>- Jingdong: "County Water Resource Regulation".</p> <p>- "County Plan for Water & Soil Conservation" (2019–2030).</p> <p>- Zhenyuan: "County Water Resource Regulation" and "Enle River District Plan for Water Resources Utilization".</p> <p>Chongqing</p> <p>- Jiangjin District: "14th FYP for Water Security"; "Water Ecology and Environment Protection Plan" (2021–2025); various implementation plans, including "Water Pollution Prevention and Treatment" (2018), "Fishing Ban Plan" (2019), and "Aquatic Wildlife Conservation Plan" (2019)..</p>	Verified by document review and interviews.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	resource management etc.; River Basin Master Plans for pilot rivers)			investigated and evaluated. Relevant suggestions for incorporating biodiversity mainstreaming goals and priorities into local water and river management policies and plans are proposed. Rating: MS	- Banan District: "14th FYP for Water Security", "Water Ecology And Environment Protection Plan" (2021–2025).	
<p>Outcome 1.2: Develop administrative regulations as well as technical guidelines for translating bio-diversity objectives into concrete WRM practices (with special emphasis on e-flow implementation through corresponding adjustment of human-made flow alteration)</p> <p>HIGHLY SATISFACTORY</p>						
OP 1.2.1	Biodiversity considerations, with specific focus on systematically establishing and implementing e-flows, mainstreamed into WRM regulations at national and provincial level (amendment of existing regulation or	See Outcome 1.1	<i>Biodiversity mainstreamed into 2-3 important national level regulations, technical norms and guidelines and 2-3 important provincial level regulations, technical norms and guidelines for</i>	MWR issued the Technical Guidance on Ecological Flow Supervision Platform for Small Hydropower, which aims to strengthen technical guidance on ecological flow supervision of hydropower stations with	Target achieved. Biodiversity mainstreamed into 4 relevant national-level documents, 2 relevant Yunnan documents and 5 relevant Chongqing documents: National: - "Opinions on E-Flow Assessment and Implementation" issued by Ministry of Water Resources (2020). http://szy.mwr.gov.cn/tzgg/202004/t20200424_1401333.html	Verified by document review.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	development of additional regulation).		<i>each of the two pilot provinces</i>	<p>installed capacity of 50MW and below, and to effectively supervise the ecological flow release of small hydropower stations.</p> <p>Biodiversity has been mainstreamed into 3 government regulations in provincial level, such as Water Resources Management Regulations of Chongqing, River Management Regulations in Chongqing, and Notice on Strengthening Rural Hydropower Capacity Expansion in Chongqing, which requires ecological water use and</p>	<p>- "Guidelines for the Calculation of River Ecological Flow with Biological Protection Goals (2021, IWRM).</p> <p>- "Notice on Strengthening E-flow Monitoring and Management of Small Hydropower Stations in the Yangtze River Economic Belt" (2019). http://www.gov.cn/gongbao/content/2020/content_5471453.htm</p> <p>- "Opinions on Rehabilitating the Ecology and Environment of Rivers and Lakes". http://www.mwr.gov.cn/xw/slyw/202112/t20211229_1557462.html</p> <p>Yunnan:</p> <p>- "Implementation Details on Water Intaking Approval and Supervision in Yunnan (trial)"; Articles 5 to 17 define water intaking issues related to e-flow. http://www.ynswj.cn/news_show.aspx?id=3406</p> <p>- "Regulations of Yunnan Province on Water and Soil Conservation". http://www.baoshan.gov.cn/info/egovinfo/1001/zfxgkpt/zfxgkptzn-content/01525527-6-/2021-1119003.htm</p> <p>Chongqing:</p> <p>- "Chongqing River Chief Regulation"(came into force 1 January2021; Article 21 includes biodiversity). http://ncrb.cqncnews.com/resfile/2020-12-31/04/04.pdf</p> <p>- "Chongqing River Channel Management Regulation"(Article 11 requires e-flows be kept</p>	

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
				ecological flow release.	<p>and Article 17 raises several possible ways for eco-restoration).</p> <p>https://www.fadada.com/notice/detail-6652.html</p> <p>- “Chongqing Water Resource Management Regulation” (revised 2018; Article 12 requires that reasonable flow and water level be maintained during water resource utilization and development).</p> <p>https://www.fadada.com/notice/detail-6581.html</p> <p>- “Notice on Strengthening the Renovation of Rural Hydropower Stations to Enhance Efficiency and Expand Capacity” (issued by Chongqing Department of Water Resources in 2017; ensures implementation of ecological flow of small power stations).</p> <p>https://wenku.baidu.com/view/3a24856bbe64783e0912a21614791711cc797999.html</p> <p>- “Regulation on the ecological flow of small hydropower stations in Chongqing” (requesting comments 2022).</p> <p>http://www.eshuidian.com.cn/2022/04/25/d9d8ad0596/</p>	
OP 1.2.2	Technical guidelines formulated and implemented, providing advice to river managers on translating biodiversity objectives into concrete action		Technical guidelines drafted for the national, provincial, prefecture, and county/district level policies (outcome 1.1) and regulations (outcome 1.2);	Needs assessment and gap analysis has been conducted at the national level. Technical Guidelines for River and Lake Health	<p>Target achieved.</p> <p>Various technical guidelines drafted:</p> <p>National</p> <p>- “Technical Guidance on Ecological Flow Supervision Platform for Small Hydropower”.</p> <p>http://www.gov.cn/gongbao/content/2020/content_5471453.htm</p>	<p>Verified by document review and interviews.</p> <p>From the reporting provided the direct connection between the policies from Outcome 1.1 and regulations from Outcome 1.2 are not immediately apparent; on assessment of the documents, the evaluation team considers the guidelines provide strong relevant direction, including targets and timelines for</p>

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	at the local level.		other suitable policies and regulations will be included as far as possible	Assessment is developed. Rating: MU	<p>- "National-Level Technical Guidelines for River and Lake Health Assessment (RHA)". http://mwr.gov.cn/ztpd/gzgt/hzz/zydt/202008/t20200820_1433359.html</p> <p>- "Technical Guidelines on River and Lake Ecosystem Conservation and Restoration" (MWR). http://gjkj.mwr.gov.cn/jsjd1/tzgg_3/202009/t20200929_1449483.html</p> <p>- "Guidelines on Calculating Environmental Water Demand in Rivers and Lakes". http://zwgk.mwr.gov.cn/jsp/yishenqing/appladd/biaozhunfile/detail.jsp?bzbh=SL%252FT%2B712-2021</p> <p>- "Technical Guidelines for River and Lake Health Assessment (SL/T 793-2020)" (MWR). http://slhp.ezhou.gov.cn/ztzl/chcz/202008/t20200819_350003.html</p> <p>- "Guidelines for the calculation of river ecological flow with biological protection goals" (2021, IWRM).</p> <p>Yunnan</p> <p>- "Guidelines on Health Assessment of Rivers, Lakes, Reservoirs and Canals in Yunnan Province (Trial)". http://wcb.yn.gov.cn/html/2021/dianshuizixun_0727/48960.html</p> <p>- "Guidelines on the Appraisal of Beautiful Rivers and Lakes in Yunnan" (2020).</p>	<p>counties' involvement, therefore the indicator is considered achieved. Note also that the target does not state how many guidelines should be drafted.</p>

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
					http://wcb.yn.gov.cn/html/2020/zuixintongzhi_0720/47032.html Chongqing - "Work Scheme and Standards on Chongqing Demonstration River Construction" (2021). http://www.chinawater.com.cn/newscenter/df/cq/202207/t20220708_785540.html - "Practical Code for Supervising E-Flow of Small Hydropower Stations in Ba'nian District" (2021). http://www.cqbn.gov.cn/ztl_252/hbdc/202101/t20210119_8782470_wap.html	
OP1.2.3	Regulations on dams and dam cascades expanded and improved to include considerations on the implementation of e-flow into both construction and operation of small and medium river dams.		Regulations for dam construction and operation drafted or improved at national and provincial level (for both pilot provinces)	Regulations for dam construction and operation drafted and improved at national and provincial level (for both pilot provinces). Rating: MS	Target achieved. Various relevant national and provincial documents drafted: National - "Technical Guidelines on Control of Flow Reduction Downstream of Small Hydropower Stations (SL/T 796-2020)" (MWR). http://nssd.mwr.gov.cn/jsbz/202101/t20210126_1496923.html - "Standard for Evaluation of Green Small Hydropower Stations" (MWR). http://www.jsgg.com.cn/Files/PictureDocument/20210701153745810422576288.pdf - "Notice of Water Resources Department of Yunnan Province on Printing and Distributing Ecological Flow Management Measures for Small Hydropower Stations in Yunnan Province (Trial)" (2022).	Verified by document review. Although not all are titled "Regulations", the documents provide comprehensive technical standards and rules and the indicator is considered achieved. Note also that the target does not state how many guidelines should be drafted.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
					<p>http://www.yn.gov.cn/zwgk/zfgb/2022/2022d6g/sjbmwj/202204/t20220408_240287.html</p> <p>Chongqing</p> <ul style="list-style-type: none"> - "Implementation Plan on the Removal and Adjustment of Small Hydropower Stations along the Yangtze River Economic Belt" (2019). https://www.sohu.com/a/298374908_423044 - "Notice on Strengthening the Renovation of Rural Hydropower Stations to Enhance Efficiency and Expand Capacity" (2017, Chongqing Department of Water Resources). https://wenku.baidu.com/view/3a24856bbe64783e0912a21614791711cc797999.html - "Regulation on the Ecological Flow of Small Hydropower Stations in Chongqing" (requesting comments 2022). http://www.eshuidian.com.cn/2022/04/25/d9d8ad0596/ <p>Yunnan</p> <ul style="list-style-type: none"> - "Regulations on ecological flow of small hydropower stations (trial)" (2022, issued by Yunnan Provincial Department of Water Resources). http://www.yn.gov.cn/zwgk/zfgb/2022/2022d6g/sjbmwj/202204/t20220408_240287.html - "Plan on Removal and Adjustment of Small Hydropower Stations in Yunnan Province" (2019). http://wcb.yn.gov.cn/html/2019/zhengcejiedu_0515/50381.html 	

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
					<p>- "Plan on Removal and Adjustment of Small Hydropower Stations in Yunnan Province" (2019).</p> <p>http://wcb.yn.gov.cn/html/2019/zhengcejiedu_0515/50381.html</p>	
<p>Outcome 1.3: Establish new institutional partnerships for WRM between government and CSOs</p> <p>SATISFACTORY</p>						
OP 1.3.1	New partnerships among government and civil society organizations established to mainstream biodiversity into water resources management.	Inclusion of CSOs including academic/research institutions underdeveloped.	Working group / stakeholder network established and operational at prefecture/municipal level as well as county/district level for 4 pilot areas.	<p>New collaborative partnerships operational at national level, provincial level for 2 pilot provinces; Working group/Stakeholder network established and operational at prefecture/municipal level as well as county/district level for 4 pilot areas.</p> <p>Rating: S</p>	<p>Target achieved.</p> <p>Various relevant results:</p> <ul style="list-style-type: none"> - The River and Lake Chief System provides a five-level network of collaboration and partnerships that was implemented at the 4 pilot areas; this is reported on under Output 2.1.1. - The Youth League was involved to provide local-level CSO input (becoming river chiefs and conducting ranger activities) and TNC was the national-level CSO. - The following report was prepared by DRC on TNC's involvement: "A Case Study of Biodiversity Conservation between Government and NGOs in Water Sector". - The project made good use of academic/research institutions and provincial PMOs involved them in various aspects of the project, including the provision of training. - "Village rules and regulations" partnership agreement signed between county governments and villagers to protect water health. - PSC minutes note that a working group was set up that involved relevant Yunnan and Chongqing partners, although no further information was available on the purpose, 	<p>Verified through interviews, photos (Youth League) and reports (TNC).</p> <p>The key result for meeting this target was the establishment of the River and Lake Chief System at all levels, including in pilot areas.</p> <p>Involvement of other CSOs / NGOs was limited.</p>

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
					membership, TOR or whether it involved county stakeholders.	
Outcome 1.4: Develop system of principles and corresponding standards to systematically measure and certify biodiversity conservation in China's water bodies						
HIGHLY SATISFACTORY						
OP 1.4.1	Create an official "River Health Assessment" (RHA) system for measurement and certification of advanced ecosystem based river management and achievement of biodiversity conservation objectives	No certification system for river biodiversity protection in place	"River Health Assessment" developed and ready to be tested in the pilot sites (see component II).	MWR has conducted river health assessment in major rivers and lakes across the country as pilots. A research report on Green Line Scorecard and the River Health Assessment (RHA) Standards, Methods and Application Report were completed. The RHA has been tested in the 4 pilot rivers. Rating: MS	Target achieved. In 2020 MWR published a national document: - "National-level Technical Guidelines for River and Lake Health Assessment (RHA)". Other relevant reports: - "A Study on Green Line Scorecard" (IWHR). - "Standards, Methodology and Application of River Health Assessment" (IWHR). - "Summary on River and Lake Health Assessment" (2021, IWHR). - "A Preliminary Report on Green line Scorecard / River Health Assessment in Chongqing" (2019). - "Guidelines on Health Assessment of Rivers, Lakes, Reservoirs and Canals in Yunnan Province (Trial)".	Verified through document review and interviews.
OP 1.4.2	"River Health Assessment" widely discussed, amended and		"River Health Assessment" created with input from and endorsed by all	A discussion meeting on the GLS and RHA has been conducted at	Target achieved. The trials informed discussions about the methodology, involving national, provincial and county stakeholders. There were no further	Verified through interviews, document review and the provincial Self-Assessment Reports. There is no formal process for such a methodology to be "endorsed by all

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	lastly agreed upon by relevant stakeholders at national (e.g. across MWR Departments), provincial and local levels in pilot provinces and sites		relevant stakeholders.	the national level. Participants reached consensus on the next steps. Rating: MS	changes to the 2020 MWR document reported under 1.4.1: - "National-level Technical Guidelines for River and Lake Health Assessment (RHA)".	relevant stakeholders"; however, interviews confirmed that national, provincial and local stakeholders had meaningful input and the indicator is considered achieved.
Outcome 1.5: Develop system of principles and corresponding standards to systematically measure and certify biodiversity conservation in China's water bodies						
SATISFACTORY						
OP 1.5.1	Expert assessments to identify suitable opportunities for river biodiversity investments maximizing effectiveness as well as efficiency of investments implemented	Corresponding government investments are increasing, put targeting on most effective BD conservation can be improved	Investment opportunity assessments conducted at national level as well as for both pilot provinces	Started to evaluate investment opportunities for river biodiversity conservation, and will achieve preliminary results in 2020. Rating: MU	Target achieved. Report by DRC: - "An Analysis on Investment in Biodiversity Conservation in the Water Sector" (2020, DRC).	Verified through document review and interview (with presentation).
OP 1.5.2	Government investments in aquatic biodiversity related water management practices significantly and		Increase in relevant government investment of at least US\$20 million) in value	The government investment on river management focused on biodiversity increased at least 12 million	Target achieved. Data provided showing government investment in aquatic biodiversity increased by 48.935 billion RMB (approx. USD 6.82 billion) between 2016 and 2019 (billions of RMB): - 2016: 84.666 - 2017: 122.484	Verified through assessment of data provided by PMO; the original data source was not obtained.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	measurably increased			US\$. The central and provincial governments invested billions of yuan in projects to improve the water environment of the whole country. Rating: MU	- 2018: 129.435 - 2019: 133.601.	
OP 1.5.3	Expansion of number of water management programs and related budgets that include bio-diversity conservation as an objective		At least 5 additional major water management programs (all government levels combined with at least one national level initiative) and related budgets include biodiversity conservation	In pilot areas, the government budgets on river management focused on biodiversity increased by a large margin. 4 additional major water management programs (1 at Pu'er Prefecture level and 2 at Chongqing Municipal level and 1 at Banan District level) include	Achieved. Evidence provided for 10 additional programs and related budgets that include biodiversity conservation (target exceeded): National level - "14 th Five Year Plan for Water Security" (National Development and Reform Commission and MWR, 2021). https://www.gov.cn/xinwen/2022-01/12/5667779/files/0b9a83c065854138b782e0318e2634f2.pdf - "The investment plan within the central budget for other water conservancy projects, such as water ecological governance of small and medium-sized rivers" (National Development and Reform Commission, Ministry of Water Resources; value 10.022 billion RMB). - "National Small and Medium Rivers Control Project" (Ministry of Finance, Ministry of Water Resources; value 217 million RMB).	Verified by document review.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
				biodiversity conservation. Rating: MS	Yunnan: - "Flood control project below the town section of Chuanhe River" (Jingdong County, Pu'er City; covers 35.4km of main stream and 0.47km of tributary; approved budget is 303 million RMB, to date 150 million RMB completed). - "Buma River Embankment Construction Project" (Zhenyuan County, Pu'er City; covers 3.1 km, completed investment 16.38 million RMB). - "Li Xian Jiang Zhenyuan County Section River Regulation Project" (Zhenyuan County; covers river length 8.9 km and a new embankment of 13.04 km, completed investment of 108 million RMB). Chongqing: - "Work Plan for the Protection of Aquatic Biodiversity in the Three Gorges Reservoir Area" (Chongqing Municipal Agriculture Committee, diverse actions between 2018 to 2020). - "Fishery Resources Protection and Proliferation Action" under guidance of the above "Work Plan". - "Biodiversity and Endangered Species Protection Action" under guidance of the above "Work Plan". - "Waters Ecological Protection and Restoration Action" under guidance of the above "Work Plan".	

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
Component II: "Enhancing Implementation" - Demonstrate on-the-ground activities for mainstreaming biodiversity in pilot rivers in Chongqing and Yunnan Provinces						
Component II achievement rating: SATISFACTORY						
Outcome 2.1: Broaden the alliance of stakeholders and clarify distribution of responsibilities to strengthen the networks of partners involved in the implementation of biodiversity conservation measures						
HIGHLY SATISFACTORY						
OP2.1.1	Pilot provinces/municipalities, prefectures and counties/districts establish new partnerships among government and civil society organizations to mainstream biodiversity into water resources management; includes corresponding prefecture and county/district level stakeholder groups	Inclusion of CSOs including academic/research institutions underdeveloped.	New collaborative partnership operational at provincial level for 2 pilot provinces (supporting mainstreaming under 1.1.3 as well as strengthening implementation capacity for pilot activities; Working group/Stakeholder network established and operational at prefecture/municipality level as well as county/district level for the 4 pilot areas.	New collaborative partnerships have been established at provincial and county levels through River Chief System, and carried out supervision work veritably. Within the mechanism, working group/Stakeholder is established. Rating: S	Target achieved. River and Lake Chief System established at provincial, municipal, county and village levels, including in the 4 pilot areas. Collaboration, coordination and clear allocation of responsibilities are key elements of this system. Relevant documents include: - "Regulations on Implementation of the Provincial level River Chief Patrol System in Yunnan Province". - "Chongqing River Chief Regulation", in which biodiversity was included in Article 21. See also reporting on other partnerships under OP 1.3.1.	Verified through document review, interviews and site visits. Note: The PSC formally noted in the Project Inception Report that Outcome 2.1 would be delivered through implementation of the River and Lake Chief System, which was initiated after the project was designed. Specifically from the Inception Report: - "The central government has decided to establish a nationwide river and lake chief system that will cover all rivers and lakes by the end of 2018. The chiefs will take full responsibility for the management and protection of the country's water bodies. The main goal of Output 2.1.2 is to establish the River chiefs system at pilot provincial and prefecture level, and to provide lessons and experiences for establishment of the system" (p.20). The evaluation team heard from many interviewees that the project made valuable contributions to implementation of the River and Lake Chief System, especially in improving
OP2.1.2	Clarify responsibilities and tasks for all	As river ecosystems stretch across	Clear biodiversity-related	Both Chongqing and Yunnan have	Target achieved. Biodiversity-related responsibilities clarified as a key element of the River and Lake Chief System	

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	stakeholders involved in river biodiversity conservation (e.g. appointment of dedicated river managers) at provincial, prefecture and county/district level.	different administrative boundaries, coordination and cooperation is often highly difficult, river management responsibilities unclear.	responsibilities for stakeholders in river management established, effectively addressing fragmentation of competences and coordination of tasks across geographical borders as well as across institutions	<p>established River Chief Systems that clarifies the responsibilities related to biodiversity protection in river management.</p> <p>Policy Framework and Typical Case Study Report on Biodiversity Protection under the Background of River and Lake Chief System was completed at the national and provincial level, which summarized the experience and lessons since the implementation of the River Chief System, and proposed further policy suggestions.</p> <p>Rating: S</p>	established at provincial, municipal, county and village levels.	the consideration of biodiversity and providing training and capacity building.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
Outcome 2.2: Pilot counties in Yunnan demonstrate successful implementation of local-level biodiversity conservation activities, implementing e-flows						
SATISFACTORY						
OP2.2.1	Ensure that pilot activities are included and embedded in the WRM planning processes at provincial and prefecture level under component I.	<p>- Clear political will to overcome the misperception that traditional water resources management concerns such as flood control, hydropower, and irrigation systems are in essence always contradictory to the ecological concerns of improving ecosystem vitality and sustaining biodiversity.</p> <p>- Extensive work by TNC and other CSOs demonstrating a higher level of</p>	Biodiversity mainstreaming under component I explicitly mentions pilot activities.	<p>The Analysis Report on Water Resources Management Policy Framework for Biodiversity Conservation of Yunnan Province is developed, covering the baseline evaluation. TNC compiled Methods and Cases for the Assessment of Priority Areas for Freshwater Ecological Protection, introducing the US experience.</p> <p>Rating: MS</p>	<p>Target achieved.</p> <p>Pilot activities are explicitly mentioned in the following policies / plans / reports under Component I:</p> <ul style="list-style-type: none"> - "The Plan for Protection and Rehabilitation of Nine Plateau Lakes" (2018–2035). - "Water Development Program for Revitalizing Yunnan in the 14th Five Year Plan Period". <p>http://yndrc.yn.gov.cn/ynfzggdt/77382</p> <ul style="list-style-type: none"> - "Guidance and Application Report on the Development of Aquatic Biodiversity Monitoring System in Pilot Rivers in Yunnan Province" (2021, Yunnan University). 	Verified through document review.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
		<p>compatibility between development goals and environmental concerns</p> <p>- Initial work at MWR and DWRs at provincial level to introduce a different balance into river management</p>				
OP2.2.2	Support the decision-making process on how to best balance e-flow implementation with development objectives based on the information and recommendations provided by the e-flow analysis under component III.	No clear basis for decision-making; no e-flow analysis and corresponding recommendations (to be provided through C-III); no experience in applying this advanced information as part of an informed decision-making process on e-	E-flow implementation strategy determined and agreed upon by all relevant prefectures as well as county level government stakeholders (incorporating expertise and recommendations from the “new partnerships”, see above).	The Report on Environmental Flow Analysis in Yunnan Province for Biodiversity Conservation (Draft) was completed. The design principles and standards for E-flows will be further developed in 2020, and technical support will continue to be provided for	<p>Target achieved.</p> <p>Relevant documents:</p> <ul style="list-style-type: none"> - “14th Five Year Plan for Water Security” (2021, National Development and Reform Commission and MWR). http://www.gov.cn/xinwen/2022-01/12/content_5667722.htmhttps://www.gov.cn/xinwen/2022-01/12/5667779/files/0b9a83c065854138b782e0318e2634f2.pdf - “Annual Report on E-flow Monitoring and Assessment in Buma and Enle Rivers” (2021, Yunnan Institute of Water & Hydropower Engineering Investigation, Design and Research). - “Supervision and Management Methods on E-Flow of Small Hydropower in Pu’er” (2021). 	<p>Verified by document review and interviews.</p> <p>Although a single “e-flow implementation strategy” document was not developed, a strategic approach to e-flow planning was followed by relevant provincial and county bureaus. Also, there is no formal process for the e-flow strategy to be “agreed upon by all relevant prefectures as well as county-level government stakeholders”; however, technical instruments and rules were issued by official departments, indicating that relevant approvals were followed. Therefore, the target is considered achieved.</p>

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
		flow implementation		the decision-making process. Rating: MS	These incorporated expertise from the “new partnerships” under OP 1.3.1, especially the River and Lake Chief System and universities.	
OP2.2.3	Review and adjustment of existing river flow alteration (especially dam structures, embankments and abstraction pattern) along Buma and Enle River (Zhenyuan County) to establish e-flow, enhance habitats and increase connectivity (based on recommendations from e-flow analysis, river health assessment and water accounting.)	General baseline for pilot activities (also see outputs below): The experience and expertise among key water management stakeholders in practically implementing biodiversity conservation activities on-the-ground is insufficient and needs to be significantly improved by implementing pilot activities. General baseline for pilot activities (also see	E-flow successfully implemented within Buma/Enle river; habitat not blocked to upstream migration by inadequate culvert, small reservoir and other water infrastructure design, resulting in improved habitat connectivity Area directly covered by BD mainstreaming: 14,400 ha	Research on E-flow analysis, river health assessment and water accounting for Buma/Enle river have been carried out in Yunnan pilot areas. E-flow control will be implemented in the pilot rivers. Through trainings and on-site guidance, TNC is providing technical support for the pilot rivers. Rating: MS	Target achieved. Reports (same as OP 2.2.4): - Recommendations on Improving Wetlands in Chuanhe, Buma and Enle Rivers (2020, Yunnan University). - Technical Report on Ecological Flow Control Experiment in Buma River for Fish Protection (2020, Yunnan Institute of Water & Hydropower). Area directly covered by BD mainstreaming: 17,706 ha.	Document review, site visits and analysis of data showing breakdown of different activities that contribute to the quantitative target. The investigations in Chuanhe, Buma and Enle rivers provided key suggestions for enhancing the connectivity of fish based on a rational e-flow situation.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
		<p>outputs below): The practical implementation of biodiversity conservation into concrete river management activities is a challenging task. It requires special expertise, experience, knowledge and skill, which needs to be built gradually. This implementation capacity for biodiversity protection is not yet existent among stakeholders, from government officials to local level</p>				

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
		river managers. (Specific to 2.2.3): Existing human-made alterations change natural flow cycle creating negative BD effects; no e-flow				
OP2.2.4	Habitat improvements along Buma and Enle River (Zhenyuan County) including swamp restoration and the creation of wetlands (along the Enle River banks).	See general baseline on implementation capacity above (2.2.3) Habitats threatened by flow alterations and other human-made environmental pressures	Increased ecosystem ability to sustain globally significant biodiversity (e.g. potamodromous fish species such as: <i>Tor sinensis</i> ; <i>Clupisoma sinense</i> =; Largemouth Bronze Gudgeon (<i>Coreius guichenoti</i>) & Royal Clown Loach (<i>Leptobotia elongate</i>) Area of improved habitats: 9.3 ha	Water ecological surveys and river health assessments were conducted on Buma River and Enle River. The restored and created wetland reached 19.25 ha (Buma river 4.65 ha and Enle river 14.6 ha), and about 400,000 local fish fry were artificially put into the Enle	Target achieved. Reports (same as OP 2.2.3): - Recommendations on Improving Wetlands in Chuanhe, Buma and Enle Rivers (2020, Yunnan University). - Technical Report on Ecological Flow Control Experiment in Buma River for Fish Protection (Yunnan Institute of Water & Hydropower). Area of improved habitats: 19.63 ha.	Document review, site visits and analysis of data showing breakdown of different activities that contribute to the quantitative target. The investigations in Chuanhe, Buma and Enle rivers provided key suggestions for enhancing the connectivity of fish based on a rational e-flow situation. Also, about 400,000 local fish fingerlings were released into the Chuan, Enle and Buma Rivers.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
				and Buma rivers. Rating: MS		
OP2.2.5	Wetland rehabilitation and tree restoration along Chuan River (Jingdong County) to revive habitat for fish and especially aquatic bird species	See general baseline on implementation capacity above (2.2.3) Natural wetlands destroyed by flow alterations and other human-made environmental pressures	Enhanced habitat for and increasing population of aquatic birds as measured by bird monitoring system (monitoring stations in two towns); ca. 35 km of minimal disturbance of key habitats Area of improved habitats and restored wetlands: 25 ha	Plan for Wetland Protection and Construction of "One Reservoir One river" in Jingdong was completed, which provided relevant plans for the wetland restoration along the Chuan river. 665.82 ha of wetlands in the upper reaches of the Chuan River have been included in the protection scope, and 13.1 ha of river side wetland has been restored. Rating: MS	Partially achieved. Specific bird monitoring system not established (although bird population can be viewed from the BD monitoring stations and new sightings of some waterbird species have been reported in Jingdong and Zhenyuan counties). Length of minimal disturbance of key habitats: no reporting provided. Area of improved habitats and restored wetlands: 665.82 ha along Chuan River. Reports (same as OP 2.2.6): - "A Preliminary Study on Chuan River Fishway Design" (2019, Yunnan Institute of Water & Hydropower). - "Recommendation Report on the Conceptual Scheme for Chuan River Ecosystem Restoration" (2020, Yunnan Institute of Water & Hydropower). - "Preliminary scheme for fishway on Lianhuatang Weir and Dagou Weir in the Chuan River stretch of the Lixian River".	Document review, site visits and analysis of data showing breakdown of different activities that contribute to the quantitative target. Bird species reported as newly recorded in Jingdong County: black stork, mandarin duck. Bird species reported as newly recorded in Ailao Mountain National Nature Reserve, which both Jingdong and Zhenyuan Counties partially cover: ruddy shelduck, Asian openbill, besra (sparrowhawk). Area of wetlands: Jingdong County approved establishment of the Chuanhe Wetland Protection Community, which includes an area of 665.82 ha.
OP2.2.6	Improvements to existing dam structures along Chuan River to implement e-	See general baseline on implementation capacity above (2.2.3)	E-flow successfully implemented within Buma/Enle river;	The preliminary Report on the Investigation and Research on Water	Target achieved. Reports (same as OP 2.2.5):	Document review, site visits and analysis of data showing breakdown of different activities that contribute to the quantitative target.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	flow (based on recommendations from e-flow assessment; see 2.2.3) (removed "and b) facilitate fish migration")	Existing dam structure alters natural flow cycle creating negative BD effects; no e-flow	<i>Implementation of habitat conservation management; Proposal on river ecological restoration plan.</i> Area directly covered by BD mainstreaming: 7500 ha	Ecology in Chuan River was completed. A Preliminary Scheme for Fishway on Lianhuatang Overflow Dam in Chuan River and Chuan River Ditch Overflow Dam was developed. Rating: MS	- "A Preliminary Study on Chuan River Fishway Design" (2019, Yunnan Institute of Water & Hydropower). - "Recommendation Report on the Conceptual Scheme for Chuan River Ecosystem Restoration" (2020, Yunnan Institute of Water & Hydropower). - "Preliminary scheme for fishway on Lianhuatang Weir and Dagou Weir in the Chuan River stretch of the Lixian River". Area directly covered by BD mainstreaming: 8,157 ha.	
OP2.2.7	Application of aquatic biodiversity monitoring system as well as "River Health Assessment" certification system in project area	No BD monitoring system in place No BD certification system in place	BD monitoring system established with two monitoring stations per river and used for improvement of BD conservation measures; ca. 80km of river with <i>new water management practices</i> . Area covered by RHA in Yunnan: 21 900 ha	Water ecological survey and RHA were carried out in pilot rivers in light of RHA methodology. River administration supervision is continuously strengthened in fields. Rating: MU	Target achieved. BD monitoring system established with: - more than two monitoring stations per river - more than 80 km of river with new water management measures - 389,670 ha covered by RHA in Yunnan. Also backed up by report "Guidance and application report on the Development of Aquatic Biodiversity Monitoring System in Pilot Rivers in Yunnan Province" (2021, Yunnan University).	Verified by analysing various sources of data / information and by field visits: - image showing locations of 9 monitoring stations in pilot rivers - annotated map of pilot rivers showing location of works; scale on map shows that >80 km covered - 389,670 ha calculated by summing the areas of three water basins: Jingdong County, Enle and Buma Rivers in Zhenyuan County.
Outcome 2.3: Pilot districts in Chongqing demonstrate successful implementation of local-level bio-diversity conservation activities, implementing e-flows						
OP2.3.1	Ensure that pilot activities are included and	See 2.2.1	Biodiversity mainstreaming under	The Analysis Report on Chongqing	Target achieved.	Verified through document review.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	embedded in the WRM planning processes at provincial/municipal level under component I.		component I explicitly mentions pilot activities.	<p>Water Resources Management Policy Framework for Biodiversity Conservation is developed, covering the baseline evaluation.</p> <p>TNC compiled Methods and Cases for the Assessment of Priority Areas for Freshwater Ecological Protection, introducing the US experience.</p> <p>Rating: MS</p>	<p>Pilot activities are explicitly mentioned in the following policies / plans / reports under Component I:</p> <ul style="list-style-type: none"> - "Regulation on the ecological flow of small hydropower stations in Chongqing" (requesting comments 2022). - "Notice on Strengthening the Renovation of Rural Hydropower Stations to Enhance Efficiency and Expand Capacity" (2017, Chongqing Department of Water Resources). <p>https://wenku.baidu.com/view/3a24856bbe64783e0912a21614791711cc797999.html</p> <ul style="list-style-type: none"> - "Guidelines for the Establishment and Implementation of Pilot River Biodiversity Monitoring System in Chongqing Municipality" (2020, Southwest University). 	
OP2.3.2	Support the decision-making process on how to best balance e-flow implementation with development objectives based on the information and recommendations provided by the e-flow	See 2.2.2	E-flow implementation strategy determined and agreed upon by all relevant municipal and district level government stakeholders (incorporating expertise and recommendations from the "new	<p>The Report on the Status Quo of Environmental Flow in Chongqing (Draft) was completed. Relevant work on ecological flow release of small hydropower station was</p>	<p>Target achieved.</p> <p>Relevant documents:</p> <ul style="list-style-type: none"> - "14th Five Year Plan for Water Security" (2021, National Development and Reform Commission and MWR). <p>http://www.gov.cn/xinwen/2022-01/12/content_5667722.htmhttps://www.gov.cn/xinwen/2022-01/12/5667779/files/0b9a83c065854138b782e0318e2634f2.pdf</p> <ul style="list-style-type: none"> - "Monitoring and Assessment Report on the Impact of Ecological Flow Discharge on Aquatic 	<p>Verified by document review and interviews.</p> <p>Although a single "e-flow implementation strategy" document was not developed, a strategic approach to e-flow planning was followed by relevant provincial and county bureaus. Also, there is no formal process for the e-flow strategy to be "agreed upon by all relevant prefectures as well as county-level government stakeholders"; however, technical instruments and rules were</p>

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	analysis under component III.		partnerships", see above).	started in Chongqing. Rating: MS	Organisms in Wubu River in Chongqing Municipality" (2021, Southwest University). - "Annual Report on Ecological Flow Monitoring and Assessment in Wubu River and Tang River in Chongqing Municipality" (2021, Chongqing Surveying and Design Institute). These incorporated expertise from the "new partnerships" under OP 1.3.1, especially the River and Lake Chief System and universities.	issued by official departments, indicating that relevant approvals were followed. Therefore, the target is considered achieved.
OP2.3.3	Review and adjustment of existing river flow alteration along Wubu River (Banan District) to establish e-flow, enhance habitats and increase connectivity (based on recommendations from e-flow analysis, river health assessment and water accounting.) <i>(*removed "especially dam structures, embankments and abstraction pattern")</i>	See 2.2.3	E-flow successfully implemented within Wubu river; <i>habitat conservation (e.g. ecological monitoring of river reach downstream of Guanjingkou reservoir dam)</i> resulting in improved habitat connectivity Area directly covered by BD mainstreaming: 1043 ha Area of habitat environment conservation : 4.4 ha	Survey Report on Aquatic Ecological in Wubu River (Draft) was completed. Banan District has compiled and implemented the Plan for Ecological Flow Control of Wubu River Hydropower Stations, installing ecological flow outlet facilities to each hydropower station in the river, installing ecological flow monitoring equipment (online	Target achieved. E-flow successfully implemented within Wubu River; various ecological restoration works undertaken, including dam removals: - area directly covered by BD mainstreaming: approximately 43,000 ha - area of habitat environment conservation: 43 ha. Also supported by very relevant information in report "Practical Code for Supervising E-Flow of Small Hydropower Stations in Ba'nán District" (2021).	Verified by analysing various sources of data / information: - area covered by BD mainstreaming calculated as 50% of the area of Wubu River - area of habitat conservation: map provided showing locations of dam works and distance upstream of BD benefits, then calculating the area covered by a strip 20 m either side (40 m total) of that length.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
				monitoring platform) to avoid water reduction and dehydration, restored 21 ha of ecological conservation area. Rating: S		
OP2.3.4	Implement strict biodiversity conservation measures along Tang River (Jiangjin District) to protect its still relatively pristine conditions.	See general baseline on implementation capacity above (2.2.3) River comparably pristine; ecosystem still largely functioning Environmental pressures increasing; protection necessary	Retain population of aquatic species through strict application of fish protection and fisheries regulation; assess biodiversity impact of several sewage water treatment options along the Tang River; avoid unnecessary obstructions in the future and improve few existing obstructions through fish migration approaches (river length ca. 31.2 km)	The Survey Report on aquatic ecosystem of Tang River in Jiangjin County (Draft) was completed. 900Tons of garbage along Tang River and 4.5 km ² of river surface have been cleaned out. 600,000 fish fries were released to increase the number of fish populations. A sewage treatment plant project was built to meet the standards for discharge.	Partially achieved. E-flow successfully implemented within Wubu River; various ecological restoration works undertaken: - length of river: 14.7 km - area directly covered by BD mainstreaming: reported 18,100 ha, no evidence received - area of habitat environment conservation: 58.8 ha. Also supported by relevant information in reports: - "A Study on Fish DNA Meta-barcoding in Pilot Rivers in Chongqing Municipality" (2021, Southwest University). - "Summary on Ecotope Survey and Health Assessment in Pilot River in Chongqing Municipality" (2021, Southwest University).	Verified by analysing various sources of data / information: - area covered by BD mainstreaming: no evidence - length of river and area of habitat conservation: map provided showing length of works upstream from Xiaojiatan Dam on Tang River, then calculating the area covered by a strip 20 m either side (40 m total) of that length.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
			Area directly covered by BD mainstreaming: 18 000 ha Area of habitats improved and restored: 57.6 ha	58 ha of ecological conservation area was restored in the Tang River. Rating: MS		
OP2.3.5	Application of aquatic biodiversity monitoring system as well as "River Health Assessment" certification system in project area	No BD monitoring system in place No BD certification system in place	BD monitoring system established with two monitoring stations per river and used for improvement of BD conservation measures; ca. 57.46 km of river with newly certified "River Health Assessment" water management practices Area covered by RHA in Chongqing: 31 043 ha	Water ecological survey and RHA were carried out in pilot rivers in light of RHA methodology. Chongqing aquatic biological monitoring system on pilot rivers was preliminarily established. Rating: MU	Partially achieved. BD monitoring system established with: - more than two monitoring stations per river - length of river with RHA practices: 115 km reported, no evidence - area covered by RHA in Chongqing: reported 95,530 ha, no evidence. Also backed up by relevant reports: - "A Report on the Development of Pilot Monitoring System in Banan District" (2019, Southwest University). -A Report on the Development of Pilot Monitoring System in Jiangjin District" (2019, Southwest University).	Verified by analysing various sources of data / information and by field visits: - image showing locations of monitoring stations in pilot rivers.
Outcome 2.4: Compilation and internal as well as external dissemination of information and best practices gained from the project						
SATISFACTORY						
OP2.4.1	Thorough documentation of information on project	Identification of best practices plus targeted	All relevant information documented; project results	Relevant project documents, reports and	Target achieved. Relevant information documented and project results synchronized with M&E reporting	Verified through review of documents and other written materials and through interviews.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	activities and results, experiences gathered, best practices identified	dissemination very limited; needs improvement	reports synchronized with M&E reporting schedule (see section 4)	records have been properly kept. The newsletters were published simultaneously in the GEF column of MWR PMO. Rating: S	schedule; includes project briefing bulletins, newsletters, communication and publicity brochures. The communication strategy contributed to implementation of this action.	
OP2.4.2	Communication of this information within the project, ensuring the mutually reinforcing interaction between project components	Identification of best practices plus targeted dissemination very limited; needs improvement	Project results shared with project team and relevant stakeholders	Communication and discussion meetings were continuously carried out within the team and among stakeholders. MWR, PMO and TNC developed a project publicity strategy. Rating: MS	Target achieved. Project results shared through various channels, including workshops, WeChat communications and training (see Outcome 3.3); PMO had an important role in providing information to support activities in provinces and counties.	Verified through review of documents and other written materials and through interviews.
OP2.4.3	Dissemination of project information and examples of successful biodiversity conservation achieved by the project to	Identification of best practices plus targeted dissemination very limited; needs improvement	Project result briefings compiled and distributed to decision-makers; public dissemination campaign	More than 20 newsletters and 2 newspapers on the project were distributed to concerned agencies and	Target achieved. More than 30 newsletters prepared and published for public on website (http://intce.mwr.cn/swdyx/); information disseminated to PSC and other decision-makers, including project bulletins (OP 2.4.2). The communication strategy contributed to implementation of this action. Public dissemination campaign included website,	Verified through review of documents and other written materials and through interviews.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	decision-makers as well as the broader public		including project report, DVD	the general public. Rating: MS	newsletters, project video being finalized; see also reporting under OP 3.3.5.	
OP2.4.4	Targeted provision of best practice information and lessons learned to potential replication and scaling-up areas	Identification of best practices plus targeted dissemination very limited; needs improvement	Best practices report compiled and distributed to other provinces, prefectures and counties/districts suitable for replication	The communication strategy is developed. Project staff participated in seminars, exchanging ideas and experiences. Rating: MS	Target achieved. Relevant sharing with other provinces, prefectures and counties/districts included: - training on RHA to non-pilot participants in Yunnan - project publications on water management and international cooperation shared with provinces and counties - activities under OP 2.4.2 and 2.4.3. The evaluation heard during interviews that at least two non-pilot provinces had expressed interest in replicating the practices and that there was progress in developing other projects to further develop and replicate the activities and practices (e.g. GEF-8).	Verified through review of documents and other written materials and through interviews.
Component III: "Improving Information" -- Creation of improved information systems and capability to use these systems to inform better and continuously improving water management practices serving enhanced conservation of river biodiversity						
Component III achievement rating: SATISFACTORY						
Outcome 3.1: Design and implement additional information systems to provide comprehensive river biodiversity analysis (including mappings, environmental flow analysis, river health assessments, and water accounting)						
SATISFACTORY						
OP3.1.1	Mapping of critical river ecotopes including existing as well as planned obstruction and	Information to serve as basis for BD related WRM and corresponding decision-	Mappings conducted in Chongqing and Yunnan with particularly detailed	At the national level, the preliminary results of the study on the framework of the aquatic	Target achieved. Mapping conducted, with detailed mapping for the four pilot sites.	Review of information and maps in provincial PMOs' Self-Assessment Reports (Chongqing and Yunnan).

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	flow alterations as well as species' populations along life cycle and corresponding BD threat assessment/hot spot identification conducted in four pilot areas as well as at province level (with appropriate level of detail)	making very limited; needs improvement No BD specific mappings existent	mappings in the four pilot sites	ecological monitoring system are put forward, and the Baseline Survey Report on River Ecological Zone is completed. Rating: MU		
OP3.1.2	E-flow analysis conducted in all four project areas and corresponding rivers to a) determine adequate quantity, timing, and quality of water flows to sustain BD; b) develop recommendations to achieve a corresponding flow regime (to be used as basis for pilot	Information to serve as basis for BD related WRM and corresponding decision-making very limited; needs improvement No e-flow analysis existent	E-flow analysis conducted; natural cycle as well as impact of flow alterations identified; recommendations for measures to achieve e-flow provided (implementation under component II)	E-flow baseline survey and information collection for all project sites are conducted. Rating: MS	Target achieved. E-flow analysis conducted and recommendations provided; reports: - "Summary and Recommendations on the Establishment and Implementation of Pilot River Biodiversity Monitoring System in Chongqing Municipality" (2021, Southwest University). - "A Preliminary Report on the River Ecological Health Assessment in the Chuanhe River Basin" (2019, Yunnan University). - "A Summary of Ecotope Survey in Chuanhe, Enle and Buma Rivers" (2021, Yunnan University).	Verified through document review and interviews.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	activities under component II)					
OP3.1.3	River health assessment, based on mapping results, conducted including water infrastructure assessment (small dam, culvert) for impacts on biodiversity and ecosystem vitality for all four project sites (see also outcome 3.2).	Information to serve as basis for BD related WRM and corresponding decision-making very limited; needs improvement No e-flow analysis existent	River health assessment conducted for all project counties	The report of River Health Assessment Study: Standards, Methods and Applications, Yunnan and Chongqing carried out RHA in pilot rivers. Relevant information is collected, including hydrological regime, riparian plants, fish, terrestrial organisms, water quality, river management, etc. Rating: MS	Target achieved. RHA conducted for all pilot rivers. Relevant reports: - "A Preliminary Report on the River Ecological Health Assessment in the Chuanhe River Basin" (2019, Yunnan University). - "Guidelines on Health Assessment of Rivers, Lakes, Reservoirs and Canals in Yunnan Province (Trial)". - "Summary on Ecotope Survey and Health Assessment in Pilot River in Chongqing Municipality" (2021, Southwest University).	Verified by document review, site visits and interviews.
OP3.1.4	Design and implementation of comprehensive water accounting system for pilot rivers including	Information to serve as basis for BD related WRM and corresponding decision-making very	Water accounting system operational, utilizing global scale public	The Preliminary Report on Standard, Methodology of Water Resources Accounting and Application in	Target achieved. Report: - "Standards, Methodology and Application of Pilot River Water Accounting" (2019, China Institute of Water Resources and Hydropower Research).	Verified by document review.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	all natural and man-made factors for abstractions, discharges and consumption	limited; needs improvement No comprehensive water accounting system existent	domain datasets (WA+)	Pilot Rivers was developed at the national level. Rating: MS		
Outcome 3.2: Design and implement additional information systems to provide comprehensive river biodiversity analysis (including mappings, environmental flow analysis, river health assessments, and water accounting)						
SATISFACTORY						
OP3.2.1	Formulate a strategy for systematically feeding biodiversity information (combined from outcomes 3.1 and 3.2) into the mainstreaming activities under component I.	No strategy existent	Strategy document formulated for both provinces and all four project sites after 6 months of project start date.	Strategy documents for both provinces and all four project sites are started. Rating: MU	Partially achieved. The project's Sustainability Plan provides some direction on how project partners "will submit recommendations to influence planning and policy making at the national, provincial and municipal levels and improve policies, regulations and technical guidelines"; however, this is high level and does not meet all criteria for this target and was not developed after 6 months to guide project implementation.	Verified by document review.
OP3.2.2	Establish GIS-based aquatic biodiversity database linking species and ecosystem lists to rivers to enable robust biodiversity-oriented review	No BD database existent	GIS database designed and operational	The construction method of GIS-based aquatic biodiversity database is proposed.	Target achieved Yunnan University and Southwest University developed a GIS database for Yunnan and Chongqing respectively; these have been provided to the relevant provincial bureau.	Verified through demonstrated evidence of GIS databases.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	of water development projects; partially using the information gathered under outcome 3.1.			The database framework is established. Report on Establishing a Robust Aquatic Biodiversity-Oriented Ecological Zone Management System (Draft) is presented. Rating: MU		
OP3.2.3	Design comprehensive aquatic biodiversity monitoring program in two pilot provinces using traditional instruments as well as modern "environmental DNA" approaches where possible.	No dedicated and continuous BD monitoring existent	Aquatic biodiversity monitoring system designed and operational	Aquatic biodiversity monitoring system was preliminary designed and under improvement. Rating: MU	Target achieved. Monitoring system designed and operational; relevant reports: - "Summary Report on Aquatic Biodiversity Monitoring (integrating traditional monitoring methods and modern 'environmental DNA' technology)" (2021, IWHR). - "A Study on Fish DNA Meta-barcoding in Pilot Rivers in Chongqing Municipality" (2021, Southwest University). - "Guidance and Application Report on the Development of Aquatic Biodiversity Monitoring System in Pilot Rivers in Yunnan Province" (2021, Yunnan University).	Verified through document review and interviews.
OP3.2.4	Pilot monitoring system in project areas: Aquatic biodiversity conservation	No dedicated and continuous BD monitoring existent	Monitoring system successfully piloted in project areas	Pilot river monitoring systems have been initially developed to monitor the	Target achieved. Monitoring system successfully piloted in project areas; relevant reports:	Verified through document review, site visit and interviews.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	targets (species number and condition; habitat condition; related amount of investment) established and monitored.			water quantity, quality, and plants, fish and large benthic animals in the target reaches at regular intervals. Water ecology surveys were carried out in the pilot rivers. Rating: MU	<ul style="list-style-type: none"> - "A Report on the Development of Pilot Monitoring System in Banan District" (2019, Southwest University). - "A Report on the Development of Pilot Monitoring System in Jiangjin District " (2019, Southwest University). - "Guidance and application report on the Development of Aquatic Biodiversity Monitoring System in Pilot Rivers in Yunnan Province" (2021, Yunnan University). 	
<p>Outcome 3.3: Develop and implement system of multi-level and multifaceted biodiversity mainstreaming training program targeting government officials and water management partners from local communities and civil society organizations</p> <p>SATISFACTORY</p>						
OP3.3.1	Training for government officials and CSO stakeholders of the new partnerships for WRM on principles and policies related to biodiversity mainstreaming (incl. national and international workshops/symposia to bring together project stakeholders as	Capacity and knowledge on BD mainstreaming low No corresponding trainings existent	At least 30 MWR officials as well as 60 officials at provincial level plus the same number of stakeholders from CSOs trained in the mainstreaming BD conservation objectives into water resources management planning and programming; at least four workshops and	Focusing on the principles and policies related to BD mainstreaming, 15 workshops were held at the national and provincial levels. More than 30 MWR officials, 60 provincial officials and 60 stakeholders from CSOs participated in the trainings of integration	Target achieved. 331 people were trained in mainstreaming biodiversity conservation objectives into water resources management planning and programming, including more than 30 MWR officials, more than 60 provincial officials, and more than 60 stakeholders from CSOs. Information was provided on 15 relevant workshops / symposia / seminars.	Verified through training records. It is difficult to accurately identify from the data provided how many attendees were from MWR, provinces and CSOs, but the total number significantly exceeds the total target (150) and the evaluation team considers the sub-targets were met.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	well as national and international river ecosystem experts)		symposia organized.	mainstreaming BD conservation objectives into water management planning and programming. Rating: MS		
OP3.3.2	Training for government officials and other relevant stakeholder at the national, provincial, prefecture, and county/district level to improve capacity for the implementation and utilization of advanced BD information systems (river health assessment, e-flow analysis, advanced water accounting)	Capacity and knowledge on BD mainstreaming low No corresponding trainings existent	At least 400 water management professionals trained in biodiversity mainstreaming practices relevant to their area of expertise.	More than 320 officials and stakeholders participated in training in BD mainstreaming trainings, increasing their capacity to establish and use advanced BD information systems. Rating: MU	Target achieved. 511 water management professionals (government officials and other relevant stakeholders) were trained in biodiversity mainstreaming practices relevant to their area of expertise.	Verified through training records.
OP3.3.3	Training for government officials and other relevant stakeholder on the use of the	Capacity and knowledge on BD mainstreaming low	At least 400 water management professionals trained in BD monitoring	The training is planned to be implemented in 2020. Rating: MU	Target achieved. 479 water management professionals were trained in BD monitoring system implementation, processing and analysis.	Verified through training records.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	aquatic biodiversity monitoring system, processing of data and translation into biodiversity conservation measures at all levels	No corresponding trainings existent	system implementation, processing and analysis			
OP3.3.4	Training for government officials and other relevant stakeholder on the use of the "River Health Assessment" certification system	Capacity and knowledge on BD mainstreaming low No corresponding trainings existent	At least 400 water management professionals trained in "River Health Assessment" implementation	More than 150 water management professionals have been trained in the RHA/GLS and river ecological restoration to master the technical methods for assessing the health of rivers and lakes. Rating: MS	Target achieved. 433 water management professionals were trained in "River Health Assessment" implementation.	Verified through training records.
OP3.3.5	Training for local community level to improve understanding of biodiversity conservation objectives and practices and	Capacity and knowledge on BD mainstreaming low No corresponding	Provision of training on river biodiversity to local population with a special focus on empowering and educating	The local agencies actively carried out trainings and publicities in conjunction with the River Chief System, World Water	Partially achieved. The self-assessment report mentions training on river biodiversity for women and ethnic minorities and also activities that are "special forms for ethnic minorities"; however, evidence was not received for this. Events were held during World Water Day, China Water Week and World Environment Day to	Verified through records and publicity for events. Note that there was no quantitative target for this indicator. Additional reporting in the self-assessment report stated that "up to 8000 river/lake chiefs, technicians and volunteers have been trained in

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
	strengthen capacity for implementation	g trainings existent	women and ethnic minorities.	<p>Day, China Water Week and World Environment Day activities, and raised the awareness of protecting river biodiversity of local people.</p> <p>In 2018-2019, more than 28,500 villagers received various trainings and promotions. Women and ethnic minorities in particular account for a large proportion of the beneficiaries.</p> <p>Rating: MS</p>	<p>raise awareness of local communities on the functions and benefits of BD conservation and their roles in supporting conservation and protection of e-flow.</p> <p>Biodiversity promotion events were held in Jingdong County, Zhenyuan County and Pu'er Prefecture.</p> <p>Produced "Learning and Training Tool Book for the Chief Engineer of Rivers and Lakes in Yunnan Province".</p>	Yunnan since the project started, including 20% of ethnic minorities and 30% of women"; evidence was not received for this.
Outcome 3.4: Project Monitoring and Evaluation						
OP3.4.1	Implementation of project monitoring and evaluation	No project, no project M&E	M&E plan implemented (according to criteria and reporting requirements)	<p>MWR PMO passed external spot check in Nov 2019.</p> <p>Project implementatio</p>	<p>Target achieved.</p> <p>M&E plan implemented; see detailed reporting under Section 3.5.1.</p>	Verified through detailed review as described in Section 3.5.1.

Output (OP)	Indicator*	Baseline	End-of-project target*	Achievement at MTR	Achievement at project end	Evaluation team comment
			described in section 4.5)	<p>n M&E system established.</p> <p>Total of 5 PPRs and 2 PIRs submitted.</p> <p>Rating: MS</p>		

Appendix 6. Example of tool for semi-structured interview (SSI)

Questions / discussion points for SSI with:

- **Project Management Office (PMO)**
- **Operational Partner (MWR)**

Note: record interviewee name(s), organization/agency, date of interview, and online or face-to-face:

.....

Introduction

- Thank the participant(s)
- Introduce the evaluators and explain we are independent consultants for FAO
- Briefly explain purpose of the evaluation
- "You have been identified as an important stakeholder who can help us with our evaluation"
- "This discussion is confidential between you, the evaluation team and the FAO evaluation manager"
- "Any questions before we start?"

Overview

- Please explain your personal involvement in the project (including how long involved).
- Please explain the role of your organization / agency in the project.

Relevance

- Were project outcomes consistent with government and agency priorities and strategies?
- If applicable, did the project become either more or less relevant since it was designed?
- To what extent was the project developed and implemented in line with the needs of local communities at project sites?

Effectiveness

- PMO: There is a lot of reporting in the self-assessment report and last PIR against outcomes and outputs, although we do not yet have any of the evidence. We would like to discuss how to arrange for us to receive the various evidence so that we can verify the achievements.
- What are the major challenges faced by the project during implementation and how were they overcome? What lessons can be learned from this?

Efficiency

- Was the OPIM modality an efficient way to execute the project? Do you have examples of where it has reduced/increased costs? Any suggestions about how it could be done better?
- Did FAO provide the level of technical and administrative support needed to implement the project under the OPIM modality?
- To what extent did the institutional arrangements (FAO execution and FAO as GEF implementing agency) contribute to efficient implementation?

-
- In your opinion, to what extent has the project been implemented efficiently and cost effectively?
 - Please describe what you see as important partnerships and synergies that contributed to results.
 - Was the co-financing made available to the project as planned?

Sustainability

- Are there particular risks to the sustainability of the project's results?
- Are there any barriers still present that may constrain the sustainability of the project's results?
- Do you have any suggestions about what could be done to increase the likelihood of the results being sustainable?
- Did the OPIM modality contribute to ensure major ownership and sustainability of the project results?

Factors affecting performance

- Did FAO provide appropriate levels of oversight, supervision and backstopping (technical, administrative and operational)?
- What have been the main challenges in relation to the management and administration of the project?
- What have been the main financial management challenges of the project?
- Did the project include a stakeholder engagement strategy? If so, was it implemented effectively and continuously to engage relevant stakeholders? Was it revised?
- Were sufficient resources (human, financial, etc) available for the OPIM implementation and execution?
- How has COVID-19 affected the implementation of the project? Have you changed some deliverables or made other adaptive management changes due to COVID-19?

Gender and other cross-cutting priorities

- Please summarize the extent to which gender considerations were taken into account in implementing and monitoring of the project. Was a gender action plan developed?
- Were other environmental and social concerns taken into consideration?

Conclusion

- Does the interviewee have any additional comments or any questions for the evaluators?
- We would like to interview the PMO again when we have undertaken most of our interviews and site visits, to discuss final questions that we will have.
- Thank you again.

Appendix 7. Example of tool for focus group discussion (FGD)

Questions / discussion points for FGD with:

- **Beneficiary villages**

Note: record name and gender of all participants, date of interview, village name, and whether online or face-to-face:

.....

Introduction

- Thank the participants
- Introduce the evaluators and explain we are independent consultants for FAO; explain that international consultant is not present
- Briefly explain purpose of the evaluation
- "You have been identified as important stakeholders who can help us with our evaluation, because we would like to hear about your experiences with the project"
- "This discussion is confidential between you, the evaluation team and the FAO evaluation manager"
- "Any questions before we start?"

Overview

- Ask all participants to introduce themselves and explain their role in the project (including how long involved).
- Please tell us about your involvement in FAO project and what your aims were for the funding, including:
 - When did your village participate in the project?
 - How many households were involved in the project in the village?
 - What types of project activities did you participate in?
 - What benefits or improvements did you expect from the project?
 - What percentage of participants were female? Were there project activities that were specifically for women?

Effectiveness

- Has the project delivered the expected improvements for your village? Please give details about the results from the project.
- What are some major challenges faced during project implementation and how were they overcome?
- What experiences and lessons can be learned from this?

Relevance

- When the project selected the demonstration villages, did project experts visit them to help develop the project? Which experts consulted you? Did you feel like your needs were considered?
- Was the project implemented in line with your needs?

Sustainability

- Do you think that it is likely that the results from the project will continue now that the project has ended?
- Do you have any suggestions about what could be done to increase the likelihood of the results being sustainable?

Efficiency / Factors affecting implementation

- In your opinion, has the project been implemented efficiently?
- What were the main challenges in implementing the project? Were some challenges removed while the project was implemented?
- Did the PMO and MWR / government agencies provide adequate support during the project?
- During the project's implementation, did you feel that you were engaged effectively as an important part of the project?
- How has COVID-19 affected the implementation of the project? Have you changed some deliverables or made other adaptive management changes due to COVID-19?
- FAO and GEF are planning and implementing other projects similar to this project in other locations. Do you have any suggestions for things that could be done better? Are there some things that were done well?

Conclusion

- Does the group have any additional comments or any questions?
- Thank you again.

Annexes

Annex 1. Terms of reference for the evaluation <http://www.fao.org/evaluation/en/>

Links to annexes will be added by the communications team for OED-managed evaluations.]