Improving the management and protection of marine biodiversity in the Gulf of Guacanayabo, Cuba

Review CEO Endorsement and Make a recommendation

Basic project information

GEF ID

10808
Countries

Cuba
Project Name

Improving the management and protection of marine biodiversity in the Gulf of Guacanayabo, Cuba
Agencies

FAO
Date received by PM

4/2/2021
Review completed by PM

2/8/2022
Program Manager

Sarah Wyatt

Focal Area

Biodiversity
Project Type

MSP

CEO Approval Request

Part I ? Project Information

1. Focal area elements. Is the project aligned with the relevant GEF focal area elements as indicated in Table A and as defined by the GEF 7 Programming Directions?

Secretariat comment at CEO Endorsement Request
11/23/2021

Yes.

5/12/2021

No, this project fails to demonstrate how targeting these specific species will generate benefits for the conservation of biodiversity more broadly. Please note that mainstreaming would be pulling biodiversity considerations into to fisheries management not just better fisheries management.

Agency Response
July 7, 2021:

The project will address biodiversity of global importance in terms of both species and key biodiversity areas (KBA). The project proponents have now included the conservation status of project fish species, as per the IUCN Red List 2021 (The IUCN Red List of Threatened Species. Version 2021-1. https//www.iucnred.org):

? Megalops atlanticus: Vulnerable. (Population decreasing)
? Lutjanus analis: Near Threatened. (Population decreasing)

? Lutjanus synagris: Near Threatened. (Population decreasing)
? Mugil liza: Near Threatened. (Data deficient)
? Hypanus americanus: Near Threatened. (Population decreasing)

Regarding the pink shrimp *Farfantapenaeus notialis*, FAO indicates its importance in the trophic-ecological relation with globally important fish species, which live and migrate from and to the Gulf of Mexico and the Caribbean Large Marine Ecosystem. *Farfantapenaeus notialis* sustains the most significant shrimp fishery of the Greater Antilles. It has a wide distribution, from the Eastern Atlantic, on the West African coast from Mauritania to Angola, through to the Western Atlantic from Cuba to the Virgin Islands, the Atlantic coast of Middle and South America, from Southern Mexico to Brazil (http://www.fao.org/fishery/species/3413/en). The species is trophically linked to a number of fish species of global importance, many of which are in the IUCN Red List, such as those of the genus *Lutjanidae* and *Epinephelus*, which in turn are important in the diet of critically endangered species, such as the lemon shark (*Negaprion brevisrostris*).

Moreover, **shrimp fisheries** in the Gulf of Guacanayabo are linked to the trophic chain of many species: biajaiba, Creole snapper, ray, shad and sierra, considered carnivores, consume shrimp in their different stages of life as a food base, in a range between 15 to 25%. The mullet (herbivorous and detritophagous*)* is important in the feeding of shad in estuaries (20% of stomach contents). At an ecosystem level, any improvement in shrimp populations will result in an increase in other species of global environmental importance. On the other hand, unsustainable shrimp fisheries, such as capturing of juvenile stages within natural nursery areas of the Gulf, pose a high risk over the entire populations, due to diminished recruitment.

The connectivity between the insular platforms of Southern Cuba, the Gulf of Guacanayabo Ecosystem (GGE) and the LME Caribbean, has been acknowledged by:

- Claro R., Lindeman K., Kough A., Paris C. (2018) Biophysical connectivity of snappers spawning aggregations and marine protected areas management alternatives in Cuba. Fish. Oceanography 28 (1) 33-42.

- Claro R., Lindeman K., Parenti L. (2002) Ecology of Marine Fishes of Cuba. Smithsonian Institution Press

- E. Gim?nez-Hurtado, P?rez-Marrero C., Delgado-Miranda G., Alonso-Dominguez H., Villafuerte-Delgado V. (2016). (2016) Behavior of bycatch in Pink shrimp fishery (*Farfantepenaeus notialis*) in the southeast Platform of Cuba, REDVET (Revista

Electr?nica de Veterinaria) 17(11)
(https://www.cabdirect.org/cabdirect/abstract/20173055839)

KBA: In Section 1a. (Project Description, sub section Globally-important biodiversity in the project intervention area) of the FAO-GEF Project Document and CEO ER a map illustrates the KBA Wetland Delta del Cauto ? located in the Gulf of Guacanayabo Ecosystem (GGE). Fisheries activities within the GGE have an impact on the Delta del Cauto (RAMSAR site 1236). In turn, this wetland is a major contributor to fisheries in the GGE, where the Cauto river flows out to the sea (https://rsis.ramsar.org/es/ris/1236?language=es#risv-section-overview). The Delta del Cauto provides nutrients through the Cauto River, fueling primary productivity, and indirectly sustaining the trophic web of the GGE. (COP 13 (2018). *Informe nacional sobre la aplicaci?n de la convenci?n de RAMSAR sobre los humedales* (www.rsis.ramsar.org).

Fish species: The 6 targeted fish species have been selected based on their sensitivity to ecological and fishing pressures - reflected on their population health - and a good indicator of the state and functioning of the GGE and KBA Delta del Cauto. Statistical data since 1980 on catch quotas, landing and fish stocks have been used to assess the structure and functioning of populations and communities in the GGE.

Regarding **BD mainstreaming**, kindly note that the project will implement the Ecosystem Approach to Fisheries and Aquaculture (EAFA) (http://www.fao.org/fishery/eaf-net/about/critical-elements/en) EAFA is an approach that brings together both biodiversity mainstreaming and people-centred strategies in the management of fisheries resources. Given the verticalized institutional structure of Cuba, the potential for scaling-up from the local/project level to the national policies is very high. The project aims to influence, through Component 2, the national fisheries and aquaculture regulations and systems, extrapolating the EAFA criteria to other species not living in the GGE but important for the ecological balance. The project, through Component 3, will involve fisheries enterprises and will promote sustainable practices, alternative protocols and sharing of lessons learned.

Please see insertions in Section(s) on Global Environmental Problem, Baseline and Alternative Scenario of the CEO Endorsement Request (ER).

2. Project description summary. Is the project structure/design appropriate to achieve the expected outcomes and outputs as in Table B and described in the project document?

Secretariat comment at CEO Endorsement Request
11/23/2021

Yes. Unclear where the previous comment and response went, but it is fine.

5/12/2021

Agency Response

3. If this is a non-grant instrument, has a reflow calendar been presented in Annex D?

Secretariat comment at CEO Endorsement Request NA

Agency Response

4. Co-financing. Are the confirmed amounts, sources and types of co-financing adequately documented, with supporting evidence and a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized, consistent with the requirements of the Co-Financing Policy and Guidelines?

Secretariat comment at CEO Endorsement Request

4/8/2022

Yes.

3/2/2022

No, please address the following:

Co-financing:
- Except the FAO amount, all the rest co-financing amounts are listed in Cuban Peso. Convert these amount to USD.
- EPISUR, EPIGRAN, and PESCATUN state owned fishing companies: change ?Grant? to ?Public investment?

5/12/2021

Yes.

Agency Response

April 7, 2022:

1) Thank you for this comment. Please note that the co-financing letters were signed in 2020, year in which according to the UN Operational Rates of Exchange, the exchange rate was 1 CUP = 1 USD (https://treasury.un.org/operationalrates/OperationalRates.php#C

). The translated co-financing letters have been updated to include the exchange rate applied.

2) The Type of co-financing for EPISUR. EPIGRAN and PESCATUN has been updated as requested.

5. GEF resource availability. Is the proposed GEF financing in Table D (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):

Secretariat comment at CEO Endorsement Request

10/12/2021

Yes.

5/12/2021

Yes. However, it appears that $57,266.63 would be remaining of Cuba's STAR after this project and it would be preferable to not leave a small amount of STAR remaining. Please confer with government to see if their STAR balance could be included here.

Agency Response

July 7, 2021:

Thank you for the comment. Cuba is reviewing and adjusting its Star allocation in the FAO implemented project entitled "Mainstreaming biodiversity into mountain agricultural and pastoral landscapes of relevant ecosystems in Eastern Cuba" (GEF ID 10400) to be submitted by September 10, 2021.

STAR allocation?

Secretariat comment at CEO Endorsement Request

5/12/2021

Yes.

Agency Response

Focal Area allocation?

Secretariat comment at CEO Endorsement Request

5/12/2021

Yes, Cuba can use its marginal flexibility for this project.

Agency Response

LDCF under the principle of equitable access?

Secretariat comment at CEO Endorsement Request NA

Agency Response

SCCF (Adaptation or Tech Transfer)?

Secretariat comment at CEO Endorsement Request NA

Agency Response

Focal Area Set Aside?

Secretariat comment at CEO Endorsement Request NA

Agency Response

Impact Program Incentive?

Secretariat comment at CEO Endorsement Request NA

Agency Response

6. Project Preparation Grant. If PPG is requested in Table E.1, has its advanced programming and utilized been accounted for in Annex C of the document?

Secretariat comment at CEO Endorsement Request

5/12/2021

Yes.

Agency Response

7. Non-Grant Instrument. If this an NGI, are the expected reflows indicated in Annex D?

Secretariat comment at CEO Endorsement Request NA

Agency Response

8. Core Indicators. Are the targeted core indicators in Table E calculated using the methodology in the prescribed guidelines? (GEF/C.54/Infxxx)

Secretariat comment at CEO Endorsement Request

10/12/2021

Yes, thank you for the additions.

5/12/2021

No, please include information on the fishery being measured for indicator 8. Also, it is unclear how more women will be beneficiaries than men when the fishing industry itself is dominated by men in employment.

Agency Response

July 7, 2021:

Thanks for the comment. Please see Table F:

(***) GEF Core Indicator 8: The fishery being measured is that of the pink shrimp (*Farfantapenaeus notialis*). This target will be reached through project implementation.

According to historical biological and fisheries statistics data, disaggregated by species, the pink shrimp has been overexploited and its stock and catches have been declining in the GGE. This has been documented by:

Baisre J. A.2018. An overview of Cuban commercial marine fisheries: the last 80 years. Bull. Mar. Sci. 94(2):359?375.x

The white and pink shrimp fisheries in Cuba have shown a decreasing trend over the last four decades: from 7,000 tons/year in the 1980s to 700 tons/year in 2018. These shrimp species have been overfished and their habitats have been degraded. Since 2007 a dramatic drop in catches has been observed (see Figure 1, page 16, CEO ER). Moreover, both shrimp species are strongly connected through the trophic chain to other species. More than 120 species have been identified as accompanying fauna of both pink and white shrimps in the GGE: 87 fish species, 16 crustaceans, 12 mollusks, 1 sponge and 3 echinoderms (Font, 2002). Some of them are exposed to by-catch (Gim?nez-Hurtado, 2016).

The project will support actions to decrease the current pressure over the pink shrimp, by setting up a 20% annual reduction in the catch quota and decreasing shrimp by-catch. Both interventions are expected to result in +1,025 tons of sustainable fisheries. In addition, juvenile and pre-adult stages of shrimp populations will not be captured in nursery areas, thus ensuring enough shrimp recruitment to sustain the fishery while maintaining an ecological balance.

Under Component 2, the Project will assess the introduction of by-catch reduction devices (BRD), taking lessons learned from the REBYC-II LAC project (GEF ID 5304), which have achieved a reduction of 40% in by-catch from shrimp fisheries in the Caribbean sea (http://www.fao.org/in-action/rebyc-2/es/).

The Project Document has been revised and additional information about the pink shrimp overfishing, and the impact of shrimp fisheries over key marine biodiversity in the GEE are provided. This is the reason why the project will measure GEF core indicator 8 through the status of *Farfantapenaeus notialis* in the GGE.

Please see changes in the Global Environmental Problem, Baseline and Alternative Scenario sections of the CEO ER.

Kindly note that the Project beneficiaries consider the four Project components: training of government and municipal staff, knowledge management actions including women scientists, value chain activities (post-landing) where women have a strong role, not just the fishing actions which are indeed dominated by men.

In view of that, project beneficiaries have been calculated in Table F, core indicator 11, and throughout the Project Document:

11	Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment.	**43485** **20125** women and **23360** men (****)

A note has been included under Table F, CEO Endorsement request that summarizes the methodology. The corresponding detailed description was also edited on Section 2 of CEO Endorsement request (Stakeholders).

The Gender Analysis conducted during full project preparation has found that 23% of workers in the GGE fishing industry are women. However, the participation of women is not homogenous. They tend to be absent in the extractive activity, while have stronger role in the fishing processing. Project activities are designed to reduce the existing gender gaps and avoid creating new ones. The project will support the creation of mini-industries that engage at least 40% of female workers as requirement. Knowledge management activities has already a predominance of women among participants (see Component 1). Project actions will make possible to reduce gender gaps in labor access and will support knowledge dissemination for women in the fishing sector by 46%.

9. Project taxonomy. Is the project properly tagged with the appropriate keywords as in Table G?

Secretariat comment at CEO Endorsement Request
5/13/2021

Yes.

Agency Response

Part II ? Project Justification

1. Project Description. Is there sufficient elaboration on how the global environmental/adaptation problems, including the root causes and barriers, are going to be addressed?

Secretariat comment at CEO Endorsement Request

2/7/2022

Yes, thank you for the substantial improvements in communicating the biodiversity importance of this project.

11/23/2021

No, thank you for the conversation on the project. Please revise and focus on the mainstreaming perspective.

5/13/2021

No, throughout the project there is reference to "fisheries of global environmental importance" but this term is never defined or explained. It might be good to have a conversation on the framing of the project if this is really an attempt to shoehorn in to the GEF strategy. There may be a better approach that focuses on the importance of managing the fisheries and their impact on the larger systems.

Agency Response

07 December 2021

FAO and the project proponents thank the GEFSEC for the good technical conversation held on 23 November.

FAO acknowledges that the term ?fisheries of global importance? is not the most adequate to describe local fisheries and their effects on the trophic chain and consequently on the ecological balance both within Gulf of Guacanayabo and the LME of the Caribbean. In light of this and based on the conversation with the GEF reviewer, project Indicator 2, Outcome 1.1 (Table B of the CEO ER) has been modified and now reads: Indicator 2: State of 6 targeted fish species updated (abundance, distribution.)

It is important to bear in mind that fisheries are the most important root cause for the decline in shrimp populations and thus such biomass reduction is already impacting upper links of the food web which include species of global importance that thrive in the Caribbean, some of which are included as target species in this project. Shrimp species spawn in outer oceanic waters and their early stages drift inward to the protected areas of Guacanayabo, where they grow and, as pre-adults. migrate again to open waters. The

fishing pressure on juvenile and pre-adult shrimp within the Gulf, along with the trawling fishery of adult shrimp, pose an important threat to the stability of these populations.

All fishery management and alternative economic activities proposed in the project (i.e. improvement of fisheries-related population dynamics and status; low-impact aquaculture and value addition of fishery products) are part of an integrated strategy to significantly reduce the pressure upon ecologically important species such as shrimp, snapper and tarpons, among others. That is, making fisheries more sustainable and providing alternatives to the communities that depend on such fishery resources, are means to reduce the pressure on such vulnerable species, thus improving the ecological balance and the health of the biodiversity of Guacanayabo. The bio-ecological connectivity of this ecosystem with the LME of the Caribbean, clearly determines that what happens within the Gulf has a repercussion on the ecological stability beyond.

This explanation has been included in the Executive Summary and in the global environmental problems section of the CEO ER.

July 7, 2021:

Many thanks for your comments. The Agency welcomes the opportunity of having a conversation with the GEF PM.

In addition, kindly refer to FAO?s response to comment 1, Part I above that address the question on the *fisheries of global importance*, and their relation with KBA Delta del Cauto, and larger marine systems as CLME and Gulf of Mexico.

In summary, the 6 targeted fisheries species are: i) representative of the main ecological systems in the GGE and have a key role in the trophic chain of the GGE, CLME and Gulf of Mexico; ii) linked to the Wetland Delta del Cauto (RAMSAR site), located in the GGE; iii) importance for the fauna accompanying shrimps in their first life stages.

A detailed description has been included in the Project Document and CEO ER, Global Environmental Problem and Baseline Sections.

2. Project Description. Is there an elaboration on how the baseline scenario or any associated baseline projects were derived?

Secretariat comment at CEO Endorsement Request
2/7/2022

Yes.

5/13/2021

No, please address the following:

- Please explain the scale (H, VH, etc) used on page 15-16 of the ProDoc.

Agency Response
July 7, 2021:

This reference has been removed and replaced by the IUCN Red List 2021, quoted on FAO?s response 1, Part I, above.

Please see changes in the Global Environmental Problem and Baseline Sections of the CEO ER

3. Project Description. Is there an elaboration on the proposed alternative scenario as described in PIF/PFD sound and adequate? Is there more clarity on the expected outcomes and components of the project and a description on the project is aiming to achieve them?

Secretariat comment at CEO Endorsement Request
2/7/2022

Yes.

11/23/2021

Yes, however it will be important for the project to examine assumptions specific and internal to the logic of the project during inception. As noted in the response, "It is assumed that the project outputs (goods and services) would create, in the short-term, enabling conditions for the EAFA implementation in the GGE." It is important to examine that assumption and what could prevent its realization. What are some of the other potential results of the project activities and how to avoid unintended consequences?

5/13/2021

No, the theory of change is very different from what we are looking for here. Given that the basic problem is overfishing, it will be very important to understand the behavior change that the project is hoping to see and what are the pathways and assumptions that would lead to it. For instance, it is an assumption that aquaculture would lead to reduced fishing as people could decide to do aquaculture *and* fishing and with the better boats

they have from aquaculture actually have more impact. Therefore, it would be good to have an explicit description of these pathways. The USAID's work on conservation enterprise can provide models for the ToC and causal chain that is needed to ensure that the project's interventions are likely to succeed and that it is using a set of testable hypotheses about assumptions. In paragraph 138, it would be helpful to understand how the ToC will be used for evaluation and learning.

Agency Response

07 December 2021

The main sustainability factor both for the whole project success and in particular for the adoption of the EAFA approach, is related to: i) having sustainable income-generating activities for the population that depend on Guacanayabo?s natural resources and ecosystem services and, related to this, ii) the internalization of the short- and long-term benefits of improving fishing practices and governance. To instrumentalize such concepts and factors, multisectoral dialogue and planning, which are core to the EAFA, are of the essence. Whilst this is not a sudden process, the project aims at engaging local actors and national authorities in all steps of the project, involving the local communities in decision-making and, above all, demonstrating them, through piloting, participatory resource monitoring and management, the tangible benefits of biodiversity protection (i.e. increased biomass, biodiversity stability).

It is envisaged to incorporate the activities and innovations introduced by the project, in the multisectoral dialogue of the current national and local governance mechanisms, so that awareness is raised in other sectors whose activities have an effect on Guacanayabo. This is expected to stimulate a multisectoral development planning, which is central to the EAFA.

As far as potential barriers that could prevent this process to be successful are concerned, the speed at which the ecosystem and its services further deteriorate, resulting in increased fish biomass reduction of socially-important species, might surpass the timeframe of the project. Also the lack of interest by other non-fishery sectors to engage in both planning dialogue and adoption of environmental and biodiversity protection measures. The mitigation measures to overcome such potential drawbacks include, again to engage local actors right from the beginning and also to take advantage of the central government support that has been offered from the formulation stages, to stimulate the integrated planning and the adoption of the fishery governance and any possible environmental improvement identified to benefit the ecosystem and its biodiversity.

This explanation has been included in the Alternative Scenario section of the CEO ER.

July 7, 2021:

Point taken. The ToC has been revised and the assumptions have been detailed. Please the Alternative Scenario section of the Prodoc and CEO ER.

The ToC states that the problem of fisheries decline is the result of the combined action of unsustainable fishing practices, environmental degradation and the impacts of climate change. The paradigm shift is expected to occur as a result of the application of the Ecosystem Approach to Fisheries and Aquaculture (EAFA) in the GGE, through the set of outputs provided by the three project components - which are interrelated.

It is assumed that the project outputs (goods and services) would create, in the short-term, enabling conditions for the EAFA implementation in the GGE. In the medium- to long-term, project outcomes would lead to positive changes in economic and environmental indicators related to fishing activities in the GGE and behavioral changes among stakeholders: better EAFA understanding and implementation, greater awareness on biodiversity conservation, enhanced coordination among local and inter-sectoral stakeholders, and integrated vision and management of the GGE.

In addition, the strengthening of diversified and sustainable fisheries in the GGE and replication of successful experiences in similar ecosystems (horizontal), and EAFA mainstreaming in fishing regulations, plans, programs and projects (vertical), would contribute to a new paradigm of jointly achieving socioeconomic improving and mainstreaming biodiversity in fisheries management.

Aquaculture is a way to diversifying livelihoods and reducing fishing pressures on natural populations. The centralized and planned characteristics of the Cuban Fisheries Management System ensure that there will be no individual and uncontrolled increase in fishing effort, even when fishermen's incomes improve.

The project will promote low-impact aquaculture systems, favoring oyster farming (the food is natural, extracted from the environment by filtration); or shrimp farming in cages; or closed systems with zero water replacement or multi-trophic aquaculture. Aquaculture can also support the restoration of populations such as shrimp. Aquaculture offers communities incomes during closed seasons, avoiding illegal fishing due to the need to generate income. Moreover, in the face of the need to manage and restrict fishing efforts, aquaculture contribute to employ people who would otherwise continue fishing for subsistence.

The ToC assumptions, by component, are as follows:

? The local fishing companies take into account criteria of the environmental and sectoral authorities with incidence in the coastal zone when designing their production plans (For Component 1).

? Local governments promote diversification of climate-resilient livelihoods that preserve marine-coastal ecosystems (For Component 2).

? Local governments promote the creation of spaces for systematic dialogue between key stakeholders concerning EAFA (For Component 3).

? The national authorities of CITMA and MINAL promote the updating of the legal and regulatory base on the conservation and sustainable management of coastal ecosystems (For Component 3).

? There is stability in the Project team composition (For Component 4).

? Project team members are trained to perform various functions (For Component 4).

? Adequate support from national and territorial stakeholders is achieved during the final evaluation (For Component 4).

The ToC is an anticipatory model of how a broader systemic change should be achieved and which the expected contribution of the project is. The ToC, by proposing alternatives to achieve a desired state, allows, with the help of monitoring, evaluation and the application of tools such as Reflection After Action, to verify what is going well and what could go better, in order to timely take corrective measures and to contribute both to the institutional and individual learning.

The ToC diagram is attached.

For the elaboration of the ToC, the following methodological sources were taken into account:

- Stafford Smith, M. 2020. Theory of Change Primer, A STAP Advisory Document. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, D.C.

- Pringle P, Thomas A. (2020). Climate Adaptation and Theory of Change: Making it work for you. A practical guide for Small Island Developing States (SIDS). Climate Analytics.

- Rogers, P. (2014). *La teor?a del cambio, S?ntesis metodol?gicas: evaluaci?n de impacto* n.? 2, Centro de Investigaciones de UNICEF, Florencia.

- Retolaza-Eguren, I. (2010). *Teor?a de cambio. Un enfoque de pensamiento-acci?n para navegar en la complejidad de los procesos de cambio social.* PNUD/Hivos

4. Project Description. Is there an elaboration on how the project is aligned with focal area/impact program strategies?

Secretariat comment at CEO Endorsement Request
2/7/2022

Yes; however, during inception and throughout the project it will be important to consider potential unintended impacts of project activities or human behavior and design to avoid these issues.

11/23/2021

No, please note that it is a very significant assumption that supporting aquaculture will lead to reduced fishing through alternative incomes. It is important for the project to consider other possible outcomes from human choice such as using aquaculture as a source of additional income and how the project will work to ensure the desired outcome. We are not questioning whether the right aquaculture systems when deployed properly can have positive effects but rather how the project will ensure that all of those things occur.

5/24/2021

No, the issue of misalignment remains. Aquaculture also has potential to have substantially negative impacts on biodiversity, so it would be helpful to have more information on the how the project will ensure this doesn't happen. There is no GEF described for monospecific aquaculture in particular.

Agency Response

07 December 2021

It is important to realize that aquaculture is one of the economic alternatives that local actors have identified during the PPG consultation process, since it is a successful activity in other parts of the country. The project will only promotes only low-impact aquaculture systems; for example, oyster farming, which is non-fed and as filter feeders, oyster somehow contribute to organic matter removal. Also small-scale shrimp farming, using native species (at least one of the species being currently under heavy fishing pressure) will allow for relieving pressure on juveniles in the Gulf. Moreover, the production of hatchery-reared larvae of *F. notialis* could help re-stocking natural populations.
Aquaculture is not the only alternative economic activity proposed by the project. The utilization of fishery wastes and the value addition to fishery and aquaculture products, will certainly represent alternative sources of income to local families. This fact is expected to reduce the pressure not only upon fishery resources but also on other natural resources from the adjacent natural protected areas.

This explanation has been included in the Alternative Scenario of the CEO Endorsement Request.

July 7, 2021:

According to FAO?s normative work, **aquaculture** is a means to reduce overfishing pressures and impacts over threatened or declining fisheries species. Low impact, small-scale aquaculture systems have been identified as a feasible alternative to capture fisheries within this project proposal. Farming of the native species *Crassostrea rizophorae*, whose culture technology has been applied in Cuba, would generate alternative cash income to fisher folk using a simple, low environmental impact technology, thus partially relieving pressure on capture fisheries. Oyster farming does not require external feeds, given that cultured organisms feed on naturally available phytoplankton and the culture infrastructure is organic and easily removable.

The pink shrimp *F.duroarum* one of the main fishery species of the Gulf of Guacanayabo, is also susceptible of culture in low impact facilities (i.e. floating cages) managed by families and/or communities. These two species can be cultured in same areas to create a multi-trophic system which reduces environmental impacts. Recirculating, zero-water exchange aquaculture systems are also a low impact technology that has been applied in Cuba and can easily be adapted to the Gulf of Guacanayabo coastal communities. Moreover, controlled reproduction of such species can help restore natural stocks through planned and monitored re-stocking programs. FAO has a long experience in applying these techniques in the Caribbean sea.

An example is oyster-culture, which has shown wide vantages and low environmental impact: https://cibnor.repositorioinstitucional.mx/jspui/bitstream/1001/911/1/PUB-ARTICULO-3650.PDF. An area for monospecific aquaculture of mangrove oyster (a filter-feeding organism that grows on the roots of the red mangrove and complements the natural work of mangrove ecosystems as natural filter feeders and purifiers of coastal areas).

The project will apply multi-trophic aquaculture (MTA), which is based on the principles of trophic chain and recycles organism residues as feed for other ones in the same system. MTA creates a natural balanced and environmentally sustainable process (?biomitigation?), which reduces the negative impact on the marine ecosystem. FAO promotes this alternative as sustainable production systems that conserves biodiversity and supports habitat functioning. This approach has been also documented by:

Chopin, T., Robinson, S.M.C., Troell, M., Neori, A., Buschmann, A.H. & Fang, J. 2008. Multi-trophic integration for sustainable marine aquaculture, pp. 2463-2475. In: The Encyclopedia of Ecology. Ecological Engineering (Vol. 3).

S.E. J?rgensen and B.D. Fath (eds.). Elsevier, Oxford.; Soto, D. (ed.). 2009. Integrated mariculture, a global review.

FAO Fisheries and Aquaculture Technical Paper No. 529. Rome, FAO. 2009. 183 pp.;

Chopin T. 2013. Integrated Multi-Trophic Aquaculture Ancient, Adaptable Concept Focuses On Ecological Integration. Global aquaculture advocate (pp. 16-19)).

Kindly see the Alternative Scenario section of the Prodoc and CEO ER for inserted changes. They also include details about the MTA and how aquaculture technologies to be implemented by the project.

5. Project Description. Is the incremental reasoning, contribution from the baseline, and co-financing clearly elaborated?

Secretariat comment at CEO Endorsement Request
2/7/2022

Yes.

5/24/2021

No, we will need to shifts in other sections to evaluate this.

Agency Response
6. Project Description. Is there a better elaboration on the project?s expected contribution to global environmental benefits or adaptation benefits?

Secretariat comment at CEO Endorsement Request
2/7/2022

Yes.

11/23/2021

No, please focus on benefits of mainstreaming to the ecosystem as a whole including PAs and Ramsar sites and how managing overfished fisheries will have a positive impact.

5/24/2021

No, the global environmental benefits are weak.

Agency Response
07 December 2021

Reducing fishing pressure; as well as improving fisheries practices and governance, as the root causes of the reduction of shrimps and small pelagic populations, that form one

of the most important parts of the food web, will contribute to restore the ecological balance of Guacanayabo. In this way, migratory species, some of which are listed as ?diminishing populations? and have been included in the project as target species, will thrive. Guacanayabo is both a feeding ground for larger species of importance to the LME Gulf of Mexico (GoM) and the Wider Caribbean, and a nursery for shrimp and small pelagic species. Therefore if such populations are stabilized, the ecological functions of the Gulf of Guacanayabo will improve thus contributing to the ecological balance of the wider GoM and Caribbean ecosystems and the globally important species that thrive there.

This explanation has been included in the Global Environmental Benefits section of the CEO Endorsement Request.

July 7, 2021:

Kindly refer to FAO?s response to comment 1, Part I.

7. Project Description. Is there a better elaboration to show that the project is innovative and sustainable including the potential for scaling up?

Secretariat comment at CEO Endorsement Request

5/12/2021

Yes.

Agency Response

8. Project Map and Coordinates. Is there an accurate and confirmed geo-referenced information where the project intervention will take place?

Secretariat comment at CEO Endorsement Request

10/12/2021

Yes.

5/12/2021

No, please include the map in the portal page.

Agency Response

July 7, 2021:

Point taken. The map has been included, as requested.

9. Child Project. If this is a child project, an adequate reflection of how it contributes to the overall program impact?

Secretariat comment at CEO Endorsement Request NA

Agency Response

10. Stakeholders. Does the project include detailed report on stakeholders engaged during the design phase? Is there an adequate stakeholder engagement plan or equivalent documentation for the implementation phase, with information on Stakeholders who will be engaged, the means of engagement, and dissemination of information?

Secretariat comment at CEO Endorsement Request
5/12/2021

Yes.

Agency Response

11. Gender equality and women?s empowerment. Has the gender analysis been completed? Did the gender analysis identify any gender differences, gaps or opportunities linked to project/program objectives and activities? If so, does the project/program include gender-responsive activities, gender-sensitive indicators and expected results?

Secretariat comment at CEO Endorsement Request
11/23/2021

Yes, thank you for including the clarifying information.

5/24/2021

No, how will there be more women beneficiaries than men even though men are most of the fishers? Also it appears that only some of the fisheries management plans will include gender. In addition, 1.2.2a has the danger to conflate young men with women. It seems a bit odd to focus on youth in particular in the management of the companies.

Agency Response

July 7, 2021:

Kindly refer to FAO?s response to comment 8, Part I, above.

All project fisheries management plans will include gender. This has been clarified in the Alternative Scenario section of the CEO ER.

Regarding output 1.2.2a, after conducting a socio-environmental project risk assessment during design, the project proponents do not foreseen any risk of conflagration between men and women. Young people are considered as vulnerable group, as well as women. In both cases, disaggregated data will inform targeted project interventions to reduce age and gender gaps and avoid the creation of new breaches. Young people will be incentivize to take on leading roles, in order to ensure social and economic sustainability in the mid- to long-term.

12. Private sector engagement. If there is a private sector engagement, is there an elaboration of its role as a financier and/or as a stakeholder?

Secretariat comment at CEO Endorsement Request
5/24/2021

Yes, as much as is possible.

Agency Response

13. Risk. Has the project elaborated on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved? Were there proposed measures that address these risks at the time of project implementation?

Secretariat comment at CEO Endorsement Request
5/24/2021

Yes.

Agency Response

14. Coordination. Is the institutional arrangement for project implementation fully described? Is there an elaboration on possible coordination with relevant GEF-financed projects and other bilateral/multilateral initiatives in the project area?

Secretariat comment at CEO Endorsement Request
5/24/2021

Yes.

Agency Response

15. Consistency with national priorities. Has the project described the consistency of the project with identified national strategies and plans or reports and assessments under the relevant conventions?

Secretariat comment at CEO Endorsement Request

5/24/2021

Yes.

Agency Response

16. Knowledge management. Is the proposed ?Knowledge Management Approach? for the project adequately elaborated with a timeline and a set of deliverables?

Secretariat comment at CEO Endorsement Request

11/23/2021

Yes.

5/24/2021

No, please provide this.

Agency Response

July 7, 2021:

Kindly refer to the Alternative Scenario section of the CEO ER. Component 3 will entirely focus on knowledge management. Please see Annex A1: Project Results Framework ? Component 3, and Annex H: Work Plan (indicative) Component 3 - Knowledge management and dissemination of results for replication and national scaling.

17. Monitoring and Evaluation. Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?

Secretariat comment at CEO Endorsement Request

5/12/2021

Yes.

Agency Response

18. Benefits. Are the socioeconomic benefits at the national and local levels sufficiently described resulting from the project? Is there an elaboration on how these benefits translate in supporting the achievement of GEBs or adaptation benefits?

Secretariat comment at CEO Endorsement Request

11/23/2021

Yes.

5/24/2021

No, while there are certainly development benefits the connection to the global environment is weak.

Agency Response

July 7, 2021:

Kindly refer to FAO?s response to comment 1, Part I, above. In brief, the connectivity between the 6 targeted species with the global environment has been documented by:

- Claro R., Lindeman K., Kough A., Paris C. (2018) Biophysical connectivity of snappers spawning aggregations and marine protected areas management alternatives in Cuba. Fish. Oceanography 28 (1) 33-42.

- Claro R., Lindeman K., Parenti L. (2002) Ecology of Marine Fishes of Cuba. Smithsonian Institution Press

As mentioned, a management enhancement of the 6 fish species will lead to both biodiversity improvement in the GEE and the wider seascape (CLME and Gulf of Mexico) and improved livelihoods through e.g. aquaculture.

19. Annexes:

Are all the required annexes attached and adequately responded to?

Secretariat comment at CEO Endorsement Request

4/19/2022

Yes, thank you for the revisions.

The PM clears the purchase of vehicles and related costs.

3/2/2022

No, please address the following:

- The expected implementation start date needs to be modified to a future date. Please request the agency to amend and confirm the duration match start/end dates.

- Please revise the budget to have more proportionality for the GEF contribution to PMC.

Budget:

a. As per guidelines: ?The use of GEF funds to purchase vehicles is strongly discouraged. Such costs are normally expected to be borne by the co-financed portion of PMCs. Any request to use GEF funding to purchase project vehicles must be justified by the exceptional specific circumstances of the project/program?. Since the co-financing portion of the PMC is only at 5%, please explore meeting this proportionally and charge these purchases there.
b. Some of the equipment below must likely will be used by the Project Management Unit ? please charge these to the PMC portion of the budget and not to the project?s components.
c. Unspecified miscellaneous expenses can?t be covered by GEF resources ? please remove.

5/24/2021

Yes.

Agency Response

April 19, 2022:

The budget has been revised to reduce the proportionality of transportation expenses from 25% of project subtotal to 16%. The difference has been transferred to the lines of workshops and procurement of technical inputs for the execution of project activities.

The purchase of vehicles is consider essential for the successful implementation of the project and comes as a request from Cuba?s OFP because:

? The type of the co-financing committed by the government of Cuba is mostly in-kind, and does not include vehicles.

? The availability of equipment for sale and rental is limited in the domestic market (see paragraph 89 of CEO endorsement request).

? The project intervention areas are located at a considerable distance (around 2,300 kilometres) from the national coordination base of the project.

? Vehicles will be used as a mean of transportation for the project team to develop daily work for the project as well as technical and monitoring visits.

April 7, 2022:

1) The project duration, expected implementation start date, and expected completion dates have been updated in the GEF portal and attached Agency Project document as requested.

2) The budget has been revised for proportionality of the PMC between GEF contribution and co-financing. Please refer to updated table B in the GEF portal and attached Agency Project Document.

Budget:

Points taken. Please refer to the updated project budget in Annex E of the GEF Portal and Annex A2 of the Attached Agency Project Document. For points b and c, In the new version of the budget we have adjusted lines to explain the nature of technical equipment and miscellaneous expenses (which have been removed).

With regards to vehicles, As explained in paragraph 89 of the project document, the availability for the purpose of sale or rental of equipment (measurement, transportation, computing), inputs and other supplies is very limited, almost nil, in the domestic market. This situation has worsened in 2021 due to the confluence of the Covid pandemic and the global crisis. In addition, the government made an important economic adjustment in 2021, which implied a process of monetary unification that has established new legal requirements to be competent to contract these services, for which non-profit entities do not apply until now, as is the case of UN agencies and some of the participating institutions. For all these reasons, we consider that in the current circumstances the purchase of these goods is the most practical and viable solution to meet the project's objectives.

Please also consider OFP support letter for Agency Execution, updated to the GEF Portal.

20. Environmental and Social Safeguard (ESS):
Are environmental and social risks, impacts and management measures adequately documented at this stage and consistent with requirements set out in SD/PL/03?

Secretariat comment at CEO Endorsement Request
2/7/2022

Yes.

11/23/2021

No, please include FAO's safeguard review.

Agency Response
07 December 2021

The FAO Environmental and Social Risk Plan (ESS Plan) is included under Section 5: Risks of the CEO Endorsement Request. The full FAO ESS Review is included in the Project Document (Annex I1) uploaded in the GEF Portal.

Project Results Framework

Secretariat comment at CEO Endorsement Request
4/8/2022

Yes.

3/2/2022

No, Annex A ?Project Results Framework? ? please include targets for GEF Core indicators 8 (fisheries moved to sustainable levels) and 11 (beneficiaries disaggregated by gender)

11/23/2021

Yes.

Agency Response
April 7, 2022:

Point taken. Please refer to the updated results framework on annex A of the GEF Portal and attached Agency Project Document in which we have included GEF Core Indicators.

GEF Secretariat comments

Secretariat comment at CEO Endorsement Request NA

Agency Response
Council comments

Secretariat comment at CEO Endorsement Request NA

Agency Response
STAP comments

Secretariat comment at CEO Endorsement Request NA

Agency Response
Convention Secretariat comments

Secretariat comment at CEO Endorsement Request NA

Agency Response
Other Agencies comments

Secretariat comment at CEO Endorsement Request NA

Agency Response
CSOs comments

Secretariat comment at CEO Endorsement Request NA

Agency Response
Status of PPG utilization

Secretariat comment at CEO Endorsement Request
4/8/2022

Yes.

3/2/2022

No, there is a difference of $11,648 that needs to be included in the table in the column amount committed. In addition, please a clarify the item ?Professional Salaries? (we need to confirm that no government staff or GEF agency staff is covered with this).

Agency Response

April 7, 2022:

Point taken. Please refer to updated Annex C (Status of Utilization of Project Preparation Grant) in the GEF portal and attached Agency Project Document. We have adjusted the difference and clarified the activities: government or agency staff will not be covered with the PPG.

Project maps and coordinates

Secretariat comment at CEO Endorsement Request

5/24/2021

Yes.

Agency Response

Part III ? Country and Agency Endorsements

1. Country endorsements. Has the project/program been endorsed by the country?s GEF Operational Focal Point and has the name and position been checked against the GEF data base?

Secretariat comment at CEO Endorsement Request

5/24/2021

Yes.

Agency Response

Does the termsheet in Annex F provide finalized financial terms and conditions? Does the termsheet and financial structure address concerns raised at PIF stage and that were pending to be resolved ahead of CEO endorsement? (For NGI Only)

Secretariat comment at CEO Endorsement Request

NA

Agency Response

Do the Reflow Table Annex G and the Trustee Excel Sheet for reflows provide accurate reflow expectations of the project submitted? Assumptions for Reflows can be submitted to explain expected reflows. (For NGI Only)

Secretariat comment at CEO Endorsement Request NA

Agency Response

Did the agency Annex H provided with information to assess the Agency Capacity to generate and manage reflows? (For NGI Only)

Secretariat Comment at CEO Endorsement Request NA

Agency Response

GEFSEC DECISION

1. RECOMMENDATION.
Is CEO endorsement/approval recommended?

Secretariat comment at CEO Endorsement Request
4/19/2022

Yes.

3/2/2022

No, while technically sound please address the issues raised.

11/23/2021

No, thank you for meeting with us to discuss the project and the adjustments needed.

5/24/2021

No, this project requires a significant shift in order to generate global environmental benefits. The GEF Sec would welcome a conversation on the project.

Review Dates

	1SMSP CEO Approval	Response to Secretariat comments
First Review	**5/24/2021**	**7/8/2021**

	1SMSP CEO Approval	Response to Secretariat comments
Additional Review (as necessary)	**11/23/2021**	
Additional Review (as necessary)	**2/7/2022**	
Additional Review (as necessary)	**3/2/2022**	
Additional Review (as necessary)	**4/19/2022**	

CEO Recommendation

Brief reasoning for CEO Recommendations