Part I: Project Information	Response	
GEF ID	10711	
Project Title	**Innovating Eco-Compensation Mechanisms in Yangtze River Basin**	
Date of Screening	11/27/2020	
STAP member screener	Mark Stafford Smith	
STAP secretariat screener	Guadalupe Duron	
STAP Overall Assessment and Rating	**Minor issues to be considered during project design** STAP is interested to see the proposal to build a systematic suite of approaches to handling environment-related market failure under the common title of 'eco-compensation' and to apply them in the Chishui catchment of the Yangtze. The concept of uniting a range of approaches under the one unifying title, as well as the proposed mobilization of long-term funding through these mechanisms, are great developments. The proposal provides an outline theory of change (ToC), which helps to structure the drivers, assumptions and barriers to progress. It would help to make the relationship between different component actions and intended long-term objectives clearer by adding shorter and longer-term outcomes in between, especially to make it easier to assess whether the listed outputs are necessary AND *sufficient* to achieve the outcomes. However, the high level architecture, of a set of activities to establish and test a more systematic approach to eco-compensation, is very convincing (Fig.4a), and the proposal addresses issues of scaling and of durability explicitly. However, during project design, STAP particularly urges proponents to (i) enhance the ToC by laying out the output activity-to-outcome logic more clearly, working back from the outcomes to ensure the outputs are not only necessary but also *sufficient* to achieve the outcomes, and establishing monitoring of key assumptions that are built	

into the project design; (ii) improve clarity with regards to farmer and other practitioner engagement; and (iii) pay more attention to issues that might undermine project durability, including climate change and the potential for population increase to overwhelm improved management in this region, cause damage to leak from here to surrounding areas, or at least have significant implications for the design or required growth trajectory of eco-compensation mechanisms.

More technically, STAP also draws attention to the option of biodegradable films as an alternative approach to partial recycling, without comment on relative costs.

Below, STAP details its recommendations on how to strengthen the project design.

Part I: Project Information B. Indicative Project Description Summary	What STAP looks for	Response
Project Objective	Is the objective clearly defined, and consistently related to the problem diagnosis?	Yes; (though, learning from objectives in other projects, it might be good to include in the wording up front the intention – that is well articulated through the proposal – to incentivise better management through supporting local livelihoods and wellbeing. This would help emphasise the joint goal of achieving both global and local benefits, and keep a focus on local beneficiaries, as explicitly noted at in the first sentence of the 'Alternative scenario' section.).
Project components	A brief description of the planned activities. Do these support the project's objectives?	These are credibly argued to be a set of activities Fig.4a), including exemplar implementations, that together define, test and seek to scale elements of a suite of eco-compensation mechanisms. These encompass developing mechanisms, applying them through planning and action to biodiversity and plastic pollution in the river basin, and a set of outputs aimed at scaling their use.
Outcomes	A description of the expected short-term and medium-term effects of an intervention.	Yes

	Do the planned outcomes encompass important global environmental benefits/adaptation benefits?	
	Are the global environmental benefits/adaptation benefits likely to be generated?	Plausible; the proposal design specifically addresses the common problem with durability, that funding sources dry up after the initial intervention investment. Some further attention is need to long term driver trends such as climate change, and perhaps population (see below).
Outputs	A description of the products and services which are expected to result from the project. Is the sum of the outputs likely to contribute to the outcomes?	Plausibly *necessary* but see comments on whether they are fully *sufficient*.
Part II: Project justification	A simple narrative explaining the project's logic, i.e. a theory of change.	It is good to have the presentation of a ToC in the PIF, but note that neither the diagram nor the associated text really addresses the question of whether the set of comments is *sufficient* to achieve the outcomes of each project component; we are not confident that a systematic (even if simple) ToC process has been undertaken that <u>works back from the objectives</u> to critically test this (e.g. see STAP ToC Primer). It would help to do this to provide more insights into whether the components (including those contributed by complementary projects, which are documented well) are truly sufficient to achieve the outcomes.
1. Project description. Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)	Is the problem statement well-defined?	Yes, noting underlying population growth, expansion of industry increasing pollution pressures (particularly from plastics) and 'uneven' governance including poor strategic coordination all resulting in pressures on the riverine systems and the services they deliver. Climate change is also noted.\n\nSome of these may present challenges to the durability of project outcomes that should be addressed further (see below).
	Are the barriers and threats well described, and substantiated by data and references?	Barriers are not explicitly discussed, but are listed in Fig.3 – absence of an eco-compensation framework, pressures for consumption, capacity

		gaps, green funding, under-appreciation of ecosystem services value, lack of locally-relevant monitoring systems. Threats as above are well--described in detail, though the integrated implications of climate change (including not only direct impacts but also transition and liability risks that may affect the value of some eco-compensation schemes, etc) are dealt with superficially in this part of the proposal, meaning that the impact of these tend to dealt with as *post hoc* risks to the project rather than as part of project design. Given the pressures of population growth and consumption, it would be good to reflect on whether there are additional barriers to better regional outcomes, such that even if some stakeholders respond well to eco-compensation, others might continue to damage surrounding areas, resulting in leakage of any achieved GEBs.
	For multiple focal area projects: does the problem statement and analysis identify the drivers of environmental degradation which need to be addressed through multiple focal areas; and is the objective well-defined, and can it only be supported by integrating two, or more focal areas objectives or programs?	Yes, clear links between biodiversity and C&W (and probably other areas). The approach is relevant to even wider suite of environmental impacts, and specifically addresses integration between local and global benefits.
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly?	Yes. There is a useful series of ADB projects outlined, which contain eco-compensation elements – but it would help to classify explicitly the mechanisms used in each, which is not currently specified in any – ie. vertical governmental transfer, up/downstream transfer, value chain transfer, offset, green bond style, etc – this would help explain the range of experience in different modes.
	Does it provide a feasible basis for quantifying the project's benefits?	There is limited quantification in the baseline section (which mostly focuses on other projects and activities), but there is relevant material elsewhere. It may be good to collate this succinctly here.

	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	Probably
	For multiple focal area projects:	
	are the multiple baseline analyses presented (supported by data and references), and the multiple benefits specified, including the proposed indicators;	Probably, though not in this section
	are the lessons learned from similar or related past GEF and non-GEF interventions described; and	Useful projects identified, but and some lessons implicit; the eco-compensation analyses will build on these.
	how did these lessons inform the design of this project?	Good potential.
3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change?	The proposal provides a simple ToC diagram; however, even in a simple form (which is fine), this needs more critical appraisal of how the outputs add up to achieve the 4 outcomes, which might be helped by a simple diagram of how the outputs deliver each outcome. Whilst the outputs are certainly plausibly *necessary* for the outcomes, at present it is hard to see any critical appraisal of whether they are *sufficient*. In essence (Fig.4), work on developing a refined and integrated eco-compensation framework for the region (Outcome 1), is then tested in two important exemplar domains of biodiversity (O2) and plastic pollution (O3) and the collected experience will be leveraged to mobilise more financing and scale up through the proposed Natural Capital Lab. Lessons from this in turn can help subsequent improvement in the eco-compensation framework. The overall logic as shown in Fig.4a is convincing and innovative in its integration. There are clearly strong policy drivers for all of this, which is very encouraging. But one may ask wither other activities might help the adoption of GEP as comparable to GDP, for example actions or narrative development to change social norms in

		government and the private sector about what is valued; similarly output 2.2 notes the importance of gaining the agreement of local communities, and O2.4 says "local communities WILL contribute their land…", so additional actions on gaining local community support for these actions might be needed of which incentives via eco-compensation may only address part of the social needs; and so on. It is useful to have a slightly more elaborated ToC so as to be able to ask these sorts of questions of the logic. Notwithstanding, the project logic is generally strong. It would help to reflect on major trends like climate change and population/consumption pressures at this design stage, however: is it realistic to expect the eco-compensation levels to exceed the drivers of population pressures and poverty? Even if this is so in the short term, what are the prospects of this continuing long-term as population continues to rise and the climate changes? Does affect the design of eco-compensation mechanisms - e.g. does the proposed fund in Output 2.4/Fig.5 need to grow at some minimal rate to keep up with these pressures?
	What is the sequence of events (required or expected) that will lead to the desired outcomes?	
	What is the set of linked activities, outputs, and outcomes to address the project's objectives?	As above. As a technical point in outcome 3, STAP wonders whether enough attention has been given to bio-degradable ag films, as opposed to recycling; these are mentioned in passing in Output 3.3 but not emphasized at all. In a simple sense, if farmers move to 10micron film, they may be able to recycle more but they are also using 25-100% more plastic per m^2- than at 5-8 microns, so the gain in recycling is much less than it seems on the 11->32% numbers here (I think). The region may already have looked at costs, etc, but biodegradable

		options are becoming more widely discussed (e.g. http://www.bioplas.com.au/agricultural-mulch-film), and research on their impacts is also available and growing (e.g. https://www.sciencedirect.com/science/article/pii/S0048969720347574 and others). Clearly a biodegradable approach would require a very different eco-compensation mechanism, but might be less harmful in the long run. In Output 4.1, public participation is mentioned: it will be important to devise open data protocols to support transparency in this regard.
	Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?	Broadly yes; but the ToC lacks a critical appraisal of underlying or implicit assumptions in Figure 3 or additionally elaborated logic. STAP recommends that the guidelines for ToCs in STAP's Primer are followed more directly to document these assumptions, and to re-assess *necessary and sufficient*. The importance of local engagement, and women's empowerment is mentioned. However, noting COVID, it would be good to know this is more than aspirational – do we know that locals want to make these changes? Will local communities or farmers work together to participate? Might there be cultural barriers? Will the proposed eco-compensation be sufficient, and how will this be judged? (by parallel with Outcome 1, relying on simple financial measurement alone does not meet the philosophy of a more integrated approach to well-being!).
	Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	Output 4.4 notes the intent for mid-term review, and adjustments, which is good. This would be greatly enhanced by monitoring and evaluation aimed explicitly at testing the assumptions in the ToC (as amended, see above, and perhaps elaborated from each Outcome), in order that implementation can learn as the project proceeds.

		STAP's ToC Primer discusses this process of adaptive MEL Outcome 4 is important for scaling, as noted: it would help to draft a simple ToC specficially aimed at this scaling step and ask as result whether there are any activities early in this project which would set it up to be more likely to scale afterwards.
5) incremental/additional cost reasoning and expected contributions from the baseline, the GEF trust fund, LDCF, SCCF, and co-financing	GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?	Very plausible (including Annex F), providing that the barriers above are really the only ones to achieving the outcomes. For example, detailed mechanisms for "(iii) increased participation of local communities" are not so obvious through the proposal. In addition, might other drivers like climate change and population increases undermine the durability of GEBs achieved? This should be addressed in further design.
	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	
6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF)	Are the benefits truly global environmental benefits/adaptation benefits, and are they measurable?	Yes, and the whole project is aimed at providing a more systematic and integrated approach to local incentives for achieving and maintaining support for the GEBs
	Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	Yes
	Are the global environmental benefits/adaptation benefits explicitly defined?	Yes, in Table
	Are indicators, or methodologies, provided to demonstrate how the global environmental benefits/adaptation benefits will be measured and monitored during project implementation?	More detail will be needed. In addition, other measures should be monitored to provide more understanding of what aspects of the eco-compensations are working and why, and generally to track the logic in the elaborated ToC.
	What activities will be implemented to increase the project's resilience to climate change?	See 'Risk' section below.

7) innovative, sustainability and potential for scaling-up	Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning?	As well as potentially testing new funding mechanisms, the innovative strength of this project is to bring a suite of mechanisms together under the rubric of 'eco-compensation', which has the potential to set a clearer framework for choosing what will work in different contexts. The approaches to the 2 specific test cases are also of interest in their own rights.
	Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	This project is aimed squarely at systematizing mechanisms for scaling up eco-compensatory funding of various types, and scaling is addressed through the proposal. However, STAP strongly recommends that a separate ToC be developed soon for the scaling process, so that more attention be paid now actions that can be taken during this project to make scaling more feasible later. (STAP's guide on Durability and its ToC Primer provide more advice on these issues.) For example, what narratives and data might help persuade government or local communities or the private sector that the approach is worth scaling?
	Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?	Transformational impact is possible. But (as above) attention should be paid as to whether trends like climate change or population and consumption pressures might alter the trajectory of eco-compensation needed, and whether design is robust to uncertainty in these trends.
1b. Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		OK
2. Stakeholders. Select the stakeholders that have participated in consultations during the project identification phase: Indigenous people and local	Have all the key relevant stakeholders been identified to cover the complexity of the problem, and project implementation barriers?	Acknowledging constraints from COVID, a range of stakeholders have been engaged; however, STAP would seek more assurance that significant and meaningful discussions have been held on ground with farmers/communities to ensure they are supportive and see potential benefits. And,

communities; Civil society organizations; Private sector entities. If none of the above, please explain why. In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.		ultimately have a sense of ownership of the approaches. Given the centrality of farmer behavior to at least one Outcome, there seems to be a low level of identified engagement with them here. The total network to engage with is complex, so care with the design of (probably multiple, targeted) multi-stakeholder processes will be important – STAP's brief on MSPs may be helpful as regards design here.
	What are the stakeholders' roles, and how will their combined roles contribute to robust project design, to achieving global environmental outcomes, and to lessons learned and knowledge?	OK
3. Gender Equality and Women's Empowerment. Please briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis). Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes/no/ tbd. If possible, indicate in which results area(s) the project is expected to contribute to gender equality: access to and control over resources; participation and decision-	Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?	Gender issues are considered in some depth. There are some warning signals, - for example, one potential outcome noted is "reduce women's labour input" – if this a desirable freeing up of time, that may be good, but if it is removing a source of income it may not.

making; and/or economic benefits or services. Will the project's results framework or logical framework include gender-sensitive indicators? yes/no /tbd		
	Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?	Further analysis is proposed, and should be progressed very early.
5. Risks. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design	Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project's control? Are there social and environmental risks which could affect the project? For climate risk, and climate resilience measures: • How will the project's objectives or outputs be affected by climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately? • Has the sensitivity to climate change, and its impacts, been assessed? • Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with? • What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?	Overall the risks seem reasonably comprehensive. Farmer reluctance to adopt new approaches is noted, lending importance to the need to engage them to develop ownership early on, see above. In addition, the treatment of climate risks is simplistic given the sophistication of the eco-compensation thinking. Whilst the CC Screening notes the importance of ensuring that recommended practices are sensitive to future climates (good), there are many other ways in which direct, indirect, transition and reputational risks from climate may affect financial instruments, as noted above (and see the TCFD documents for other aspects of this). Some of these might materially alter the design or thresholds of eco-compensatory mechanisms, as noted above. In addition, long-term targets of eco-compensation need to be robust to uncertainty in the future trends of climate (as well as population, consumption, economy, etc), rather than optimized to one future and liable to fail badly in others.
6. Coordination. Outline the coordination with other relevant GEF-financed and other related initiatives	Are the project proponents tapping into relevant knowledge and learning generated by other projects, including GEF projects?	Seems so

	Is there adequate recognition of previous projects and the learning derived from them?	Yes,.
	Have specific lessons learned from previous projects been cited?	
	How have these lessons informed the project's formulation?	
	Is there an adequate mechanism to feed the lessons learned from earlier projects into this project, and to share lessons learned from it into future projects?	
8. Knowledge management. Outline the "Knowledge Management Approach" for the project, and how it will contribute to the project's overall impact, including plans to learn from relevant projects, initiatives and evaluations.	What overall approach will be taken, and what knowledge management indicators and metrics will be used?	The overall intention of Outcome 4, to develop the Natural Lab platform, is exciting and potentially transformational, and should presumably form a core foundation to the KM strategy. Hence this section in the proposal is surprisingly poorly developed. It is largely based on conventional dissemination methods, whereas the potential to create a series of innovation lab projects, as well as other knowledge transmission through academies associated with the Natural Lab, would seem worth considering.
	What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	In addition, paying close attention to what data and knowledge might most affect decision-making by the actors needed for eco-compensation (on policy, funder and practitioners sides) would be helpful. Here a ToC for scaling would help direct activities in a more focused way. For example, tracking and demonstrating the livelihood benefits and the success of other incentives might be other examples of explicit actions more likely to create fertile ground for scaling out

Notes

STAP advisory response	Brief explanation of advisory response and action proposed
1. Concur	STAP acknowledges that on scientific or technical grounds the concept has merit. The proponent is invited to approach STAP for advice at any time during the development of the project brief prior to submission for CEO endorsement.
	* In cases where the STAP acknowledges the project has merit on scientific and technical grounds, the STAP will recognize this in the screen by stating that *"STAP is satisfied with the scientific and technical quality of the proposal and encourages the proponent to develop it with same rigor. At any time during the development of the project, the proponent is invited to approach STAP to consult on the design."*
2. Minor issues to be considered during project design	STAP has identified specific scientific /technical suggestions or opportunities that should be discussed with the project proponent as early as possible during development of the project brief. The proponent may wish to:
	(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised;
	(ii) Set a review point at an early stage during project development, and possibly agreeing to terms of reference for an independent expert to be appointed to conduct this review.
	The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.

3. Major issues to be considered during project design	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical methodological issues, barriers, or omissions in the project concept. If STAP provides this advisory response, a full explanation would also be provided. The proponent is strongly encouraged to:
	(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised; (ii) Set a review point at an early stage during project development including an independent expert as required. The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.