Part I: Project Information		
GEF ID	10090	
Project Title	Promoting Low Cost Energy Efficient Wooden Buildings in Turkey	
Date of Screening	12/4/2018	
Screener	Sunday Leonard	
Panel Member	Ferenc Toth	
STAP Overall Assessment	Minor	Mistake: in Part I project information please correct the duration: is it five years or? Certainly not 6 months. And: in the Part B. Indicative project description summary, it would be useful to rearrange the project components according to their numbers because this would represent the logical sequence of implementation.

Part I: Project Information	**What STAP looks for**	**Response**
B. Indicative Project Description Summary		
Project Objective	Is the objective clearly defined, and consistently related to the problem diagnosis?	Yes
Project components	A brief description of the planned activities. Do these support the project's objectives?	Yes
Outcomes	A description of the expected short-term and	Properly described.
	Do the planned outcomes encompass important	Yes, GHG emissions reductions.
	Are the global environmental benefits likely to be	Yes
Outputs	A description of the products and services which are expected to result from the project.	Wooden buildings constructed with lower CO2 emissions.

Part II: Project justification	A simple narrative explaining the project's logic, i.e. a theory of change.	No explicit theory of change, but the sequence of activities and their outcomes represent a plausible logical framework: establish organizational, legislative and policy framework to support the contruction of wooden buildings, this will facilitate the creation of the financial support mechanism and enable the construction of six buildings that will serve as demonstration of the benefits in the subsequent public information campaign to market wooden buildings and the cross laminated timber (CLT) technology so that the share of wooden buildings in the annual new constructions would increase by 1 percentage point (to 1.19%) by 2026 relative to the current share, resulting in significant direct GHG emissions reduction.
1. Project description. Briefly describe:		
1) the global environmental and/or adaptation	Is the problem statement well-defined?	Yes
	Are the barriers and threats well described, and	The barriers are properly described, they appear
	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	Not an MFA project.
2) the baseline scenario or any associated	Is the baseline identified clearly?Does it provide a	Yes.
	Does it provide a feasible basis for quantifying the project's benefits?	Yes, and it is used in calculating the benefits.
	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	Yes, and it is simple: without this project, the share of wooden buildings in new construction is not likely to increase.
	For multiple focal area projects:	Not a MFA project.

	are the multiple baseline analyses presented (supported by data and references), and the multiple benefits specified, including the proposed indicators;	Not a MFA project.
	are the lessons learned from similar or related past GEF and non-GEF interventions described; and	Not a MFA project.
	how did these lessons inform the design of this project?	Not a MFA project.
3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change?	No explicit theory of change, but the sequence of activities and their outcomes represent a plausible logical framework: establish organizational, legislative and policy frameworks to support the construction of wooden buildings, this will facilitate the creation of the financial support mechanism that, in turn, will enable the construction of six buildings that will serve as demonstration of the benefits in the subsequent public information campaign to market wooden buildings and the cross laminated timber (CLT) technology so that the share of wooden buildings in the annual new constructions would increase by 1 percentage point (to 1.19%) by 2026 relative to the current share, resulting in significant direct GHG emissions reduction.
	What is the sequence of events (required or expected) that will lead to the desired outcomes?	Establish organization and legislative capacities, enabling financial mechanism, implement demonstration projects, use the new buildings in public awareness and marketing campaigns.

· What is the set of linked activities, outputs, and outcomes to address the project's objectives?	See above.
· Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?	The mechanisms of change emerging from the linked activities and outcomes are reasonable. One big question is whether the public information campaign will generate sufficient public interest in investing in buildings incorporating a largely unknown technology to increase the share in the new construction by a factor of six in a few years (by 2026). Further to this, some research (for example, Mallo & Espinosa, 2014 - Outlook for CLT, Bioresource, 9, 4) have indicated that one of the challenges to the adoption of CLT is that many people do not completely trust the durability of wood as a building material. It is recommended that the project proponents seriously consider how this will be addressed in order to achieve the ambitious objectives. Furthermore, one of the assumptions in the PIF is the claim that CLT buildings are 5% cheaper than traditional building materials (paragraphs 12 and 14). However, a quick review of the literature on CLT suggests that the cost competitiveness of CLT building in contrast to traditional buildings depends on building type and application. In some cases, CLT building turns out more expensive than traditional

	· Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	No. The basic assumption is that the chain of activities and their outcomes will work smoothly. Various types of risks are considered - see below.
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?	Yes, GHG emissions reductions.
	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	Not applicable.

6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF)	Are the benefits truly global environmental benefits, and are they measurable?	Yes. However, more information is needed on how the GEBs were calculated. Firstly, three aspects need to be considered for calculating the mitigation benefits: (1) avoided embodied energy compared to using concrete and steel (2) energy efficiency to be achieved by building with CLT – contrary to the assertion at the end of paragraph 22 of the PIF that the amount of heating or cooling between CLT and concrete buildings are more or less the same, some research shows that CLT buildings are more energy efficient and the energy efficiency is dependent on the height of the building – that is high rise or low rise building (Guo et al. 2017. Sustainability 2017, 9, 1426; https://www.mdpi.com/2071-1050/9/8/1426 and Tommaso Scalet, 2015. https://www.theseus.fi/bitstream/handle/10024/102020/Bachelor%20Thesis_Tommaso%20Scalet.pdf?sequence=1). (3) carbon emissions due to cutting down trees. This would reduce the project's benefits. STAP recommends that these factors should be considered in preparing an accurate estimation of the climate mitigation benefits of the project.
	Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	Yes

Are the global environmental benefits explicitly defined?	Yes. However, more information is needed on how the GEB was calculated. Firstly, three aspects need to be considered for calculating the mitigation benefits: (1) avoided embodied energy compared to when concrete and steel were used (2) energy efficiency to be achieved by building with CLT – contrary to the assertion at the end of paragraph 22 of the PIF that the amount of heating or cooling between CLT and concrete buildings are more or less the same, some research shows that CLT buildings are more energy efficient and the energy efficiency is dependent on the height of the building – that is high rise or low rise building (Guo et al. 2017. Sustainability 2017, 9, 1426; https://www.mdpi.com/2071-1050/9/8/1426 and Tommaso Scalet, 2015. https://www.theseus.fi/bitstream/handle/10024/102020/Bachelor%20Thesis_Tommaso%20Scalet.pdf?sequence=1). (3) carbon emissions due to cutting down trees. This should be a negative to the benefits of the project. STAP recommends that these factors should be considered in preparing an accurate estimation of the climate mitigation benefits of the project.

Are indicators, or methodologies, provided to demonstrate how the global environmental benefits will be measured and monitored during project implementation?	Yes. The energy savings and the net GHG emissions reductions from building wooden buildings instead of using traditional energy intensive consruction materials are clearly demonstrated. Another potential benefit - the value of the carbon captured in the wooden buildings for many decades - is not mentioned. It could be signifcant albeit highly uncertain because it depends on where the wood comes from, and what would have happened to the mature forests if the wood had not been harvested, etc. Perhaps Table 1-2 provides some information but it is not included in the PIF. STAP suggests that the project team look into the potentially sequestered carbon stored in wooden buildings.
What activities will be implemented to increase the project's resilience to climate change?	Partly considered in the PIF. Integrated forest management approaches will be used to help forests adapt to climate change, but there is no indication of the possible impacts on wooden buildings. STAP suggests that the project team design a climate impact assessment for the wooden buildings and explore adaptation options because these wooden houses are intended to serve for many decades, possibly a century, during which climate attributes important to them (mean temperatures and extremes, mean precipitation and extremes, extreme wind conditions, and others) will certainly change.

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?	Yes, the project intends to transfer a construction technology and material barely known in Turkey.
	Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	Component 3 of the project involves a public awarness campaign intended to trigger public interest in wooden buildings and a training program for construction companies to stregthen the supply side.
	Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?	The objective is a fundamental transformation over the long term: considerably increase the share of wooden buildings from its present negligible level. Furthermore, paragraph 24 indicates that the project will not result in deforestation based on the allowable cut and the high growth rate on forest land in Turkey which is well managed by the government. However, in order tomake the project foolproof, the project should incorporate a policy to ensue that a tree is replanted for everyone harvested for building construction. This will ensure that deforestation is avoided, and the overall project is climate neutral.
1b. Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		

2. Stakeholders. Select the stakeholders that have participated in consultations during the project identification phase: Indigenous people and local 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.	Have all the key relevant stakeholders been identified to cover the complexity of the problem, and project implementation barriers?	Yes
	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?	This is a major deficiency in the PIF. Table 1-4 contains a lengthy description of the stakeholders to be involved in the project but almost nothing about their actual roles and contributions to the project. STAP recommends that the project team shorten the descriptions of the general mandates of the stakeholders drastically and provide descriptions of their roles and functions in the project.

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-making; and/or economic benefits or services. Will the project's results framework or logical framework include gender-sensitive indicators? yes/no /tbd	Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?	The PIF mentions gender equality in very general terms. STAP advises the project team to prepare a gender analysis in order to address gender issues properly.
	Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?	No

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?	The identified risks are valid and comprehensive, the risk management strategy is reasonable. But an important potential risk is ignored. Part II, paragraph 5 mentions that wood consumption is growing fast and already exceeds domestic production by about 5 million m3. What will be the source of wood for the significantly increased number of wood buildings? If it is coming from domestic sources, there is an opportunity cost of not using this wood for other purposes. If the wood required for these buildings comes from imports, the drastic devaluation of the Turkish Lira against most currencies in 2018 profoundly changes the cost of wooden buildings compared to when the present estimates were made - unless the cost of traditional building materials were affected similarly. STAP suggests to undertaking a thorough comparative assessment of the costs and the currency risks for the two main material sources (wood vs traditional) to make sure that wooden houses remain cost competitive under the new circunstances. Moreover, Risk 1 New policies and legislation not enacted is a low probability (the Ministry of Agriculture and Forestry supports the project), but a very high consequence risk, because if "lobbying" for these enabling conditions fails, it is difficult to
	Are there social and environmental risks which could affect the project? For climate risk, and climate resilience measures:	Yes, they are properly considered.

	· 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?	On the raw material side (forestry), integrated forest management approaches are planned to help forests adapt to climate change. No climate impact assessment for the wooden buildings is mentioned but is needed. See the STAP recommendation above.
	· Has the sensitivity to climate change, and its impacts, been assessed?	No, but they should be. See above.
	· Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with?	No, but they should be. See above.
	· What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?	STAP recommends involving climate scientists to produce plausible scenarios of climate change for all regions where wooden buildings may be constructed (everywhere in Turkey, according to the PIF) and engineers to assess the impacts and adaptation options for the wooden buildings for the next 100 years in all these regions.
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?	Yes
	Is there adequate recognition of previous projects and the learning derived from them?	Yes
	Have specific lessons learned from previous projects been cited?	Yes
	How have these lessons informed the project's formulation?	Yes

	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?	There is no indication of the mechanisms but several earlier and ongoing projects are mentioned as information sources. Sharing the lessons learned is problematic - see KM below.
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?	Knowledge management is practically non-existent in the PIF. Since the project is expected to involve various types of innovation and is likely to face different challenges during its implementation, lots of lessons are expected to arise that would be valuable to those considering similar projects. A project website and regular UNDP channels are certainly useful options for information dissemination, but the project deserves more. STAP recommends that the project team prepare a more detailed KM plan, including KM indicators and metrics. The related STAP document Managing knowledge for a sustainable future https://www.thegef.org/sites/default/files/publications/STAP%20Report%20on%20KM.pdf is a good source of advice.
	What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	Very little. See STAP's proposition about KM above.

STAP Notes