STAP guidelines for screening GEF projects

Part I: Project Information	Response
GEF ID	10681
Project Title	Accelerating the adoption and life-cycle solutions to electric mobility in Thailand
Date of Screening	November 17, 2020
STAP member screener	Saleem H. Ali
STAP secretariat screener	Sunday Leonard
STAP Rating	Concur
STAP Overall Assessment of the project proposal	This project considers a social and environmental policy approach to enable e-mobility in Thailand's eastern economic corridor, an area that is important for the country's overall economic growth trajectory. UNIDO has laid out a good theory of change, showing the causal chain leading to desired short- and long-term outcomes and overall impacts. A description or inclusion of alternative pathways (plan B) if the proposed pathway is not feasible will further strengthen the current theory of change. The four project components are well-conceived to enable both supply and demand approaches to e-mobility and foster an entrepreneurial ecosystem to move such an idea forward. The private sector partnerships with e-mobility manufacturers and having a life-cycle approach to battery recycling infrastructure are key innovative features of the project, as well as the conversion of internal combustion vehicles into electric vehicles. We recommend that the project proponent follow through with these activities and capture lessons that can be used in future GEF projects. STAP has recently developed a report that addresses the recycling of technology critical elements, which could be useful as this project is further developed: Ali, S. and Katima, J. 2020. Technology Critical Elements and their Relevance to the Global Environment Facility. A STAP Background Document. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, DC. Other publications on this topic that may be useful include Olsson et al., 2018. Circular Business Models for Extended EV Battery Life. https://www.mdpi.com/2313-0105/4/4/57; Drabik & Rizos, 2018. Prospects for electric vehicle batteries in a circular economy. https://www.ceps.eu/ceps-publications/prospects-end-life-electric-vehicle-batteries-circular-economy/; Kurdve et al., 2019. Considerations when Modelling EV Battery Circularity Systems. https://www.mdpi.com/2313-0105/5/2/40. Detailed information on how the direct and indirect climate mitigation GEBs was derived was provided as an annex. This is commendable.

	The climate change situation in Thailand and around the planned project corridor was recognized, including climate change variation and impacts up to 2090. An environmental and social safeguard template was also completed. However, the specific risk of climate change to the planned interventions still needed to be assessed and appropriate mitigation measures designed. We recommend that this should be completed. As the project is developed further, we would recommend that the team refer to the recent article in a peer-reviewed journal that presents some of the past challenges in implementing this type of project: Mohamad, M., & Songthaveephol, V. (2020). Clash of titans: The challenges of socio-technical transitions in the electrical vehicle technologies – the case study of Thai automotive industry. *Technological Forecasting and Social Change*, *153*, 119772. https://doi.org/10.1016/j.techfore.2019.119772	
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
Project components	A brief description of the planned activities. Do these support the project's objectives?	The project aims to develop a national enabling policy for e-mobility and prototype this with an entrepreneurial ecosystem for electric vehicles and batteries. There is also a training and capacity-building component as well as a monitoring component. All of these are well-structured and targeted at the project's objectives.
Outcomes	A description of the expected short-term and medium-term effects of an intervention. Do the planned outcomes encompass important global environmental benefits?	Yes, there are detailed calculations presented of global environmental benefits with a robust methodology.
	Are the global environmental benefits/adaptation benefits likely to be generated?	Yes
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?	The establishment of e-vehicle charging stations and infrastructure for battery recycling and overall uptake of e-mobility is would be worthwhile products and services.

Part II: Project justification	A simple narrative explaining the project's logic, i.e. a theory of change.	A detailed addendum diagram of a theory of change was presented which is well-thought out and detailed.
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
	Are the barriers and threats well described, and substantiated by data and references?	Good risk assessment is provided, including COVID's impact on overall mobility and economic development.
	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?	This project is not focused on degradation.
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly?	Well-defined in earlier parts of the PIF with details on metrics.
	Does it provide a feasible basis for quantifying the project's benefits?	Detailed addendum and noted in PIF as well
	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	Yes
	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;	Yes they are presented.
	are the lessons learned from similar or related past GEF and non-GEF interventions described; and	UNIDO's past experience is noted.

	how did these lessons inform the design of this project?	Well-incorporated in design.
3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change?	Yes – presented in detail.
	What is the sequence of events (required or expected) that will lead to the desired outcomes?	Presented adequately through theory of change diagram.
	What is the set of linked activities, outputs, and outcomes to address the project's objectives?	Each outcome in components 1-4 is clearly linked to outputs.
	Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?	Yes – with careful monitoring
	Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	Yes
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
	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	Yes
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
	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
	Are indicators, or methodologies, provided to demonstrate how the global environmental benefits/adaptation benefits will be measured and monitored during project implementation?	Yes
	What activities will be implemented to increase the project's resilience to climate change?	Yes
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 industrial ecological approach which brings in a circular economy component considering the suppliers of e-cars and batteries as well as recyclers into the project is innovative.
	Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	Yes
	Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?	Refer to the article provided and referenced in summary comments.
1b. Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		Yes – though not georeferenced. This could be done later as e-stations plans develop.
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.	Have all the key relevant stakeholders been identified to cover the complexity of the problem, and project implementation barriers?	Yes

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.		
	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?	Provided in supplementary material
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?	Yes, this is noted in the broader context of Thailand's gender empowerment efforts. E-mobility can also be an enabling feature of getting women into the workforce.
	Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?	Accounted for

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?	Yes noted
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?	Well-coordinated
	Is there adequate recognition of previous projects and the learning derived from them?	Yes
	Have specific lessons learned from previous projects been cited?	Not really but since this is a new area of work this was not expected. However, please refer to attached article.
	How have these lessons informed the project's formulation?	Described
	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?	Good coverage in these sections
	What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	Standard reporting

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.