



GEF-6 GEF SECRETARIAT REVIEW FOR FULL-SIZED/MEDIUM-SIZED PROJECTS THE GEF/LDCF/SCCF TRUST FUND

GEF ID:	9367		
Country/Region:	Bhutan		
Project Title:	Bhutan Sustainable Low-emission Urban Transport Systems		
GEF Agency:	UNDP	GEF Agency Project ID:	5563 (UNDP)
Type of Trust Fund:	GEF Trust Fund	GEF Focal Area (s):	Climate Change
GEF-6 Focal Area/ LDCF/SCCF Objective (s):	CCM-2 Program 3;		
Anticipated Financing PPG:	\$100,000	Project Grant:	\$2,639,726
Co-financing:	\$10,318,000	Total Project Cost:	\$13,057,726
PIF Approval:	April 28, 2017	Council Approval/Expected:	May 25, 2017
CEO Endorsement/Approval		Expected Project Start Date:	
Program Manager:	Xiaomei Tan	Agency Contact Person:	Rakshya Thapa

PIF Review			
Review Criteria	Questions	Secretariat Comment	Agency Response
Project Consistency	1. Is the project aligned with the relevant GEF strategic objectives and results framework? ¹	XT, Jan. 25, 2016: Yes.	
	2. Is the project consistent with the recipient country's national strategies and plans or reports and assessments under relevant conventions?	XT, Jan. 25, 2016: Yes. The proposed project could potentially support the country's INDC.	
Project Design	3. Does the PIF sufficiently indicate the drivers ² of global environmental degradation, issues of sustainability, market transformation, scaling, and	XT, Jan. 25, 2016: 1) Please analyze the root causes from the perspective of i) institutional fragmentation, ii) role of the informal	

¹ For BD projects: has the project explicitly articulated which Aichi Target(s) the project will help achieve and are SMART indicators identified, that will be used to track the project's contribution toward achieving the Aichi Target(s)?

² Need not apply to LDCF/SCCF projects.

PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
	innovation?	<p>sector in delivering transport services, and iii) inappropriate standards and norms.</p> <p>2) Please justify the scaling-up potential of the project.</p> <p>XT, March 23, 2016:</p> <p>1) Thank you for providing info on the root causes. However, the project design and outputs have been changed accordingly to address these root causes.</p> <p>) The explanation is not clear. The new information suggests that the RGoB aims to replace taxi fleet with IC engines, while the project focus on mass transit system, which is totally different from taxi. Please explain how the project plans to scale up the deployment of low emission vehicles in the mass transit system.</p> <p>XT, May 16, 2016:</p> <p>1) Project design and outputs have been adjusted to address the root causes. Comment cleared.</p> <p>2) Explanation on the local context of "mass" transit is provided. Comment cleared.</p>	
	4. Is the project designed with sound incremental reasoning?	<p>XT, Jan. 25, 2016:</p> <p>Due to a lack of information on baseline projects, it is hard to assess the incremental reasoning. Please clearly define the baseline projects.</p>	

PIF Review

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		<p>XT, March 23, 2016:</p> <p>Baseline project info is expected to explain if the country has already developed infrastructure for EVs, such as availability of charging stations, EV components and maintenance services. Without such info, it is unlikely to assess the incremental reasoning of this project.</p> <p>XT, May 16, 2016:</p> <p>Yes, specific baseline info is provided – there are currently six charging stations across Bhutan. Comment cleared.</p>	
	5. Are the components in Table B sound and sufficiently clear and appropriate to achieve project objectives and the GEBs?	<p>XT, Jan. 25, 2016:</p> <p>Overall, table B needs to clarify and address the following issues:</p> <p>1) The scope of EV fleet that is covered by the proposed project. For example, does it cover government fleet (cabinet fleet, government ministry and agency fleet, protocol service cars and police car), which account for a significant portion of vehicles in Bhutan? Further, are vehicles for tourists covered?</p> <p>2) Integration of low-carbon transport into urban land use. Please consult with the World Bank team on the projects, "Joint urban and transport program on electric vehicle initiative" and "Bhutan electric vehicle and green</p>	

PIF Review

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		<p>transport initiative"</p> <p>Specifically, Component 1:</p> <p>3) Please clearly define "low emissions modes of transport."</p> <p>4) Please explain what "inclusive assessments of people's needs and planning" mean. Is this a kind of resident mobility survey?</p> <p>5) For the statement, "technical and guidelines and standards for low carbon vehicle operators, manufacturers --- " Please explain what kind of low-carbon vehicle manufacture that Bhutan is going to develop.</p> <p>Component 2:</p> <p>6) How will certified training programs will be executed? Are they permanent, or only in operation during the project period?</p> <p>Component 3:</p> <p>7) Please clearly define the number of low emission vehicles that are going to be introduced in pilot cities.</p> <p>8) Please clarify how many charging stations will be developed due to GEF investment.</p> <p>9) Outputs c-g seem to duplicate with outputs in component 1 and 2. For example, The output of "assessment of consumer</p>	

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		<p>demand, route structures leading to route rationalization and service planning" seems to duplicate with component 1's output on resident needs assessment. The output of " assessment and development of viable financing and business models to supply vehicles, operations and maintenance" seems to duplicate with component 1's "funding strategy".</p> <p>10) Component 3 is labeled as "investment", while main outputs in component 3 are about assessments and studies.</p> <p>11) Overall, component 3 does not provide a clear picture of what kind of investment GEF grant will support.</p> <p>XT, March 23, 2016:</p> <p>1) Comment cleared.</p> <p>2) Please briefly list the key findings that "were taken into account during development of this PIF." It is currently not self-evident where urban land use has been incorporated as a design factor.</p> <p>3) Your definition of "low emission modes of transport" suggests that non-motorized transport is an important mode of urban mobility. The proposed project however exclusively focuses on EVs. The rationale is not clear.</p> <p>4) Comment cleared.</p> <p>5) The scenario of having Bhutan</p>	

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		<p>Government develop guidelines and standards intended to foreign manufacturers and distributors is only remotely possible. It is definitely not a constructive way to use GEF grant. Please delete this component and use the money to the investment component.</p> <p>6) What is the "existing technical training curricular of agencies such as the GNHC and DTESD"? Is it relevant to low-emission transport systems? Further, what are the main missions of government agencies like GNHC and DTESD? Is "executing training" an integrated part of their mission? Overall, please adjust the grant size for component 2 and streamline activities in the component.</p> <p>7) Please clearly quantify the output at the CEO endorsement stage. Comment cleared</p> <p>8) Please clearly quantify the output at the CEO endorsement stage. Comment cleared</p> <p>9) Output 3(a) "introduction of low emission vehicles for mass transit system" is obviously contradictory to the RGoB's plan of "considering public taxi fleet as core target for initial investment and demo under this component" (paragraph 4, page 11). Taxi is the opposite of mass transit. Please clearly think through the outputs in component 3.</p>	

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		<p>10) Please refer to comment 9 and clearly articulate what the project aims to achieve in terms of investment.</p> <p>11) Comment is not addressed.</p> <p>XT, May 16, 2016:</p> <p>2) Key findings are provided. Comment cleared.</p> <p>5) Comment is addressed.</p> <p>9) Clarification is provided. Comment addressed.</p> <p>10) Comment addressed.</p> <p>11) Comment addressed.</p>	
	6. Are socio-economic aspects, including relevant gender elements, indigenous people, and CSOs considered?	XT, Jan. 25, 2016: Yes.	
Availability of Resources	7. Is the proposed Grant (including the Agency fee) within the resources available from (mark all that apply):		
	• The STAR allocation?	XT, Jan. 25, 2016: Yes.	
	• The focal area allocation?	XT, Jan. 25, 2016: Yes.	
	• The LDCF under the principle of equitable access	XT, Jan. 25, 2016: N/A	
	• The SCCF (Adaptation or Technology Transfer)?	XT, Jan. 25, 2016: N/A	
	• Focal area set-aside?	XT, Jan. 25, 2016: N/A	
Recommendations	8. Is the PIF being recommended for clearance and PPG (if additional amount beyond the norm) justified?	<p>XT, Jan. 25, 2016: No. The project requires major modifications.</p> <p>XT, March 23, 2016: No. The project hasn't addressed all the comments. Recommend a phone consultation to clarify any questions before the agency</p>	

PIF Review			
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		resubmits the project. Also, please check the PPG financing amount to ensure consistency with GEF guidance. XT, May 16, 2016: Yes. The project is recommended for PIF clearance.	
Review Date	Review	January 25, 2016	
	Additional Review (as necessary)	March 23, 2016	
	Additional Review (as necessary)		

CEO endorsement Review			
Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
Project Design and Financing	1. If there are any changes from that presented in the PIF, have justifications been provided?	XT, April 3, 2018: Minor changes are observed but justifications provided.	
	2. Is the project structure/ design appropriate to achieve the expected outcomes and outputs?	XT, April 3, 2018: Please address the following issues: 1) Charging infrastructure is indispensable for EVs operation. According to the International Energy Agency, the availability of chargers is a key factor contributing to the market penetration of EVs.	

CEO endorsement Review

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		<p>Further, ensuring the availability of chargers is essential for enabling the diversification of the transport fuel mix and catalyzing its transition towards clean energy. Related to this, please explain: a) how will the project create an enabling environment for installation and expansion of EV charging infrastructure. b) please explain how will component 3 (necessary financial incentives) help charging infrastructure suppliers. c) what are the siting principles for the charging infrastructure that is targeted at Thimphu's taxi fleet?</p> <p>2) In the TCO analysis, OPEX's electricity cost is zero. Please explain who will shoulder the cost of electricity if the taxi drivers don't have to pay for it. Further, according to the Bhutan Power Corporation Ltd., there are different rates of electricity tariff depending on voltage and consumption amount. Accordingly, EV charging will be levied high tariff. Therefore, please put various factors into consideration when analyzing the TCO.</p> <p>3) Latest study from Lux Research shows the majority of EV batteries won't have second lives, largely due to high cost associated with it. (http://www.luxresearchinc.com/content/reuse-or-recycle-billion-dollar-battery-question-1) Therefore, in your project design and implementation, please be prepared that the component of reusing retired batteries might</p>	

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		<p>bring unexpected financial risks.</p> <p>4) In addition to financial incentives, non-financial benefits such as faster approval process and mandating dedicated parking spots for EVs can also effectively promote EV penetration. Please include non-financial incentives in your project design.</p> <p>5) Norway, Sweden and the Netherlands have the highest EV penetration rate in the world. Their experience in designing both financial and non-financial incentives should be included in the international examples box (page 23).</p> <p>XT, May 3, 2018:</p> <p>1):</p> <p>a) comment not addressed. An enabling environment for charging infrastructure development often covers the following factors: government's incentive measures that covers R&D, taxes, subsidies, regulations and overall strategies that created market traction; encouragement of non-state players such as private companies and social capital to enter the market and therefore bring in healthy competition; and integrating infrastructure development with land use and urban planning. Please specify how the project will create an enabling environment.</p> <p>b) comment cleared.</p> <p>c) comment cleared.</p> <p>2) comment cleared.</p>	

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		<p>3) comment cleared. 4) comment cleared. 5) comment cleared. Please consider joining IEA's Electric Vehicles Initiative. Let me know if you would like to be connected to the relevant people.</p> <p>XT, June 5, 2018: 1) comment cleared.</p>	
	3. Is the financing adequate and does the project demonstrate a cost-effective approach to meet the project objective?	<p>XT, April 3, 2018: Please address questions in box 2.</p> <p>XT, May 3, 2018: Please address question in box 2.</p> <p>XT, June 5, 2018: Comment cleared.</p>	
	4. Does the project take into account potential major risks, including the consequences of climate change, and describes sufficient risk response measures? (e.g., measures to enhance climate resilience)	<p>XT, April 3, 2018: Please address comment 3 in box 2.</p> <p>XT, May 3, 2018: Comment cleared.</p>	
	5. Is co-financing confirmed and evidence provided?	XT, April 3, 2018: Yes.	
	6. Are relevant tracking tools completed?	<p>XT, April 3, 2018: Please explain if the Manual for Calculating GHG Benefits of Global Environment Facility Transportation Projects was used to acquire the GHG benefits?</p> <p>XT, May 3, 2018: Comment cleared.</p>	
	7. <i>Only for Non-Grant Instrument:</i> Has a reflow		

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	calendar been presented?		
	8. Is the project coordinated with other related initiatives and national/regional plans in the country or in the region?	XT, April 3, 2018: Yes.	
	9. Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?	XT, April 3, 2018: Yes.	
	10. Does the project have descriptions of a knowledge management plan?	XT, April 3, 2018: Yes.	
Agency Responses	11. Has the Agency adequately responded to comments at the PIF ³ stage from:		
	• GEFSEC	XT, April 3, 2018: Yes.	
	• STAP	XT, April 3, 2018: Yes.	
	• GEF Council	XT, April 3, 2018: Yes.	
	• Convention Secretariat	XT, April 3, 2018: N/A.	
Recommendation	12. Is CEO endorsement recommended?	XT, April 3, 2018: Not at this time. Please address comments in boxes 2, 3, 4, and 6. XT, May 3, 2018: Not at this time. Please address comment in boxes 2 and 3. XT, June 5, 2018: All comments cleared. Recommended for CEO endorsement.	
Review Date	Review		
	Additional Review (as necessary)		
	Additional Review (as necessary)		

³ If it is a child project under a program, assess if the components of the child project align with the program criteria set for selection of child projects.