

# Scientific and Technical Advisory Panel

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility  
(Version 5)

## STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: May 08, 2017  
Screener: Sunday Leonard  
Panel member validation by: Ralph E. Sims  
Consultant(s):

### I. PIF Information *(Copied from the PIF)*

FULL-SIZED PROJECT	GEF TRUST FUND
GEF PROJECT ID:	9682
PROJECT DURATION:	5
COUNTRIES:	China
PROJECT TITLE:	Achieving Efficient and Green Freight Transport Development in China
GEF AGENCIES:	World Bank
OTHER EXECUTING PARTNERS:	Ministry of Transport
GEF FOCAL AREA:	Climate Change

### II. STAP Advisory Response *(see table below for explanation)*

Based on this PIF screening, STAP's advisory response to the GEF Secretariat and GEF Agency(ies):  
**Concur**

### III. Further guidance from STAP

Emissions from long-haul freight transport in China are significant. Rail, sea and inland waterway modes are utilized but three quarters of freight is carried by road. The lack of intermodal hubs restricts transfer from road to more efficient modes but plans are in place to improve this constraint. The uptake of e-commerce has also put greater logistical pressure on urban deliveries. Lessons have been learned from earlier regional projects that have identified "shift" and "avoid" as solutions. Upgrading the HDV fleet and greater use of IT are proposed in this project.

This project proposal is classed as a "pilot project" since it is to be demonstrated in 5 cities. However, this sentence is not clear: "Other GEF projects that include multiple pilot cities confirmed the demonstration effect and the replication potential of successful pilot projects; this is being continued under the proposed project". Which projects does this refer to?

"The local component will work with several private logistics companies to pilot innovations in intermodal transport" – but paragraph 7 states this issue is already being well addressed by the government. What value will this component of the project proposal add? It is important that this is clarified during the design of the sub-national component.

["Relationship to CPF" should be "to CPS"]

The use of electric vehicles (EVs) for urban deliveries may help to reduce local air pollution but, given the relatively high emission factor of China's electricity grid system, this will have little impact, if any, on reducing CO2 emissions to the atmosphere. Local renewable electricity generation could be a plausible option. However, urban deliveries by EVs may still be preferable over diesel engines in areas where local air pollution is a problem and where shifting to other greener freight modes is not yet feasible.

Furthermore, in considering the avoid, shift and improve approach, it is important that the identified measures are thought through in a holistic manner to ensure that there are no unintended consequences. For example, shifting from road freight to waterways, without adequate consideration for the additional impacts from shipping (see for example: <https://www.nature.com/nclimate/journal/v6/n11/full/nclimate3083.html>), could result in an increase in CO<sub>2</sub>, black carbon and other air pollutant emissions, with resultant negative climate and air pollution impacts.

For component 1c (a), black carbon emissions are not specifically mentioned as a local air pollutant (see STAP Advisory document "Black Carbon Mitigation and the role of the GEF" <http://www.stapgef.org/taxonomy/term/394>) . This could be given higher significance in this project especially given the co-benefits of climate change mitigation and local air quality, and consequently improved human health.

The port facilities in Component 2 appear to have good potential to improve intermodal transfers. Capacity building (Component 3) is a relatively small objective. There have been several training programmes for truck drivers around the world over the past 3 to 4 decades so these could provide the necessary resources for the trainers (though who these trainers will be and what skills and experience they will need has not been made clear).

The project would make a contribution to meeting China's INDC but an assessment of the mitigation potentials (in terms of t CO<sub>2</sub>-eq avoided) from the project is not provided, (as it is in the GEF PIFs). Yet one of the indicators listed is "CO<sub>2</sub> emissions from the pilot projects" (PID section C, page 7). Other than stated in Component 3B, what method will be used to determine the emissions reductions? Will the GEF manual on Transport Emissions calculations ([https://www.thegef.org/sites/default/files/publications/GEF\\_CalculatingGHGbenefits\\_webCD\\_1.pdf](https://www.thegef.org/sites/default/files/publications/GEF_CalculatingGHGbenefits_webCD_1.pdf) ) be utilised? How will the additional mitigation from this GEF project be measured given the range of activities already in place in this sector, e.g. avoiding a confusing baseline? The current project document has not provided information on knowledge management as well as opportunities for knowledge transfer. This will be useful for project sustainability as well as replicability especially in the region.

The Global Green Freight website ([www.globalgreenfreight.org](http://www.globalgreenfreight.org) ) provides a comprehensive Global Green Freight Action Plan, information on collaborations and opportunities, global green freight programs, and events. It is also the hub of expertise and a central resource for guidance and support for establishing green freight. Another knowledge platform that can be consulted for the project is the Smart Freight Centre (<http://www.smartfreightcentre.org/> ) which hosts the Global Logistics Emissions Council (GLEC) - a group of companies, industry associations and programs aimed at making carbon accounting work for industry, and backed by leading experts, governments and other stakeholders. They have developed a methodology for calculating logistics emissions across the global multi-modal supply chain (<http://www.smartfreightcentre.org/glec/glec-framework> ).

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Concur</b>	In cases where STAP is satisfied with the scientific and technical quality of the proposal, a simple “Concur” response will be provided; the STAP may flag specific issues that should be pursued rigorously as the proposal is developed into a full project document. At any time during the development of the project, the proponent is invited to approach STAP to consult on the design prior to submission for CEO endorsement.
<b>2. Minor issues to be considered during project design</b>	<p>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:</p> <p>(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised.</p> <p>(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.</p> <p>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.</p>

<p><b>3. Major issues to be considered during project design</b></p>	<p>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:</p> <p>(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.</p> <p>The GEF Secretariat may, based on this screening outcome, delay the proposal and refer the proposal back to the proponents with STAP's concerns.</p> <p>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.</p>
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