

## Pathways for Decarbonizing Transport towards Carbon Neutrality in China

### Basic Information

**GEF ID**

10790

**Countries**

China

**Project Title**

Pathways for Decarbonizing Transport towards Carbon Neutrality in China

**GEF Agency(ies)**

World Bank

**Agency ID**

World Bank: P175561

**GEF Focal Area(s)**

Climate Change

**Program Manager**

Ming Yang

# PIF

## Part I – Project Informatic

### Focal area elements

1. Is the project/program aligned with the relevant GEF focal area elements in Table A, as defined by the GEF 7 Programming Directions?

#### Secretariat Comment at PIF/Work Program Inclusion

3/25/2021 MY:

Not completed.

Yes, the project is well aligned with GEF CCM focal area in zero-carbon energy development for recipient countries.

There are only two windows for this project to access CCM funding:

1. CCM 1-2: Electric drive technologies and electric mobility;
2. CCM 1-5: Promoting zero carbon energy (this was added in 2020 to deal with COVID-19).

Please change Table A in the datasheet:

#### A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-1-2	GET	1,834,862.00	40,000,000.00
CCM-1-3	GET	8,256,881.00	70,000,000.00
Total Project Cost (\$)		10,091,743.00	110,000,000.00

4/2/2021 MY and Filippo Berardi (FB):

"Due to internal misinterpretation of COVID discussions, the reference to CCM 1-5 should be deleted. There is no such objective under GEF-7. Please use CCM-1-2 as the funding window which is the only eligible window for this project.

4/13/2021 MY:

Yes, comments were addressed and the PIF was revised.

**Agency Response** 4/12: Table A has been revised to include only CCM1-2 as per guidance received.

## Indicative project/program description summary

**2. Are the components in Table B and as described in the PIF sound, appropriate, and sufficiently clear to achieve the project/program objectives and the core indicators?**

### Secretariat Comment at PIF/Work Program Inclusion

3/25/2021 MY:

Not completed at this time.

Per the existing budget, a total of \$3.59 million will be used in Component 1 Policy Framework towards Decarbonizing Transport. The three sub-components described in paragraphs 26, 27, and 28 are all related to decarbonization in China's transport sector which is has little to do with e-mobility. A lot of literature in this topic can be found via the internet. Examples include 1) Policies to Decarbonize the Transport Sector [https://link.springer.com/chapter/10.1007/978-3-030-37966-7\\_4](https://link.springer.com/chapter/10.1007/978-3-030-37966-7_4) ; 2) Decarbonization of China's transportation sector: In light of national mitigation toward the Paris Agreement goals [https://www.researchgate.net/publication/324966577\\_Decarbonization\\_of\\_China's\\_transportation\\_sector\\_In\\_light\\_of\\_national\\_mitigation\\_toward\\_the\\_Paris\\_Agreement\\_goals](https://www.researchgate.net/publication/324966577_Decarbonization_of_China's_transportation_sector_In_light_of_national_mitigation_toward_the_Paris_Agreement_goals) 3). The Role of Electric Vehicles in Decarbonizing China's Transportation Sector <https://www.belfercenter.org/publication/role-electric-vehicles-decarbonizing-chinas-transportation-sector> ; 4) Decarbonization of China's transportation sector: In light of national mitigation toward the Paris Agreement goals <https://www.sciencedirect.com/science/article/pii/S0360544218307618> , etc. etc.

Please consider presenting a baseline scenario and justify innovation.

4/5/2021 MY and FB:

In addition to presenting a dynamic baseline scenario for this project, the additionality of the project scenario versus the status quo should be strengthened. In terms of innovation, the GEF suggests the Agency to more explicitly refer to a number of key elements to make it clear that the project should move beyond the existing baseline as described in the literature listed on the comments of 3/25/2021 of this box. The Agency may consider the inclusion of the following points which were already highlighted but not explicitly enough in the project's theory of change:

- a. Promotion of e-mobility coupled with captive renewable energy charging options and/or with a clear plan to increase the renewable energy share of the local grid where the planned intervention will be carried out;
- b. Focus on promotion of electric mobility for inter-city applications and routes and maritime infrastructures; and
- c. The use of hydrogen as alternative fuel and focus on the local supply chain of *green* hydrogen for transportation.

The integrated approach proposed by the project, which looks at all options available to reach peak emissions in transport by 2030 and net zero by 2060 is welcomed. The GEF can fund part of the related analytical work in line with China's country needs and planning priorities towards emission peaking and net zero targets. However, for the pilot investments, in line with the GEF-7 programming directions, GEF funding should only be used to support electric drive technologies, including battery and green hydrogen vehicles, and the related charging infrastructure and green hydrogen supply chain.

Again, emission reductions should be calculated based on a dynamic baseline, which accounts for the already ongoing and projected improvements of the market for electric drive technologies.

4/13/2021 MY:

The revision of the project components is most welcomed.

However, it is not completed yet. In Subcomponent 1B, please consider the following project outputs: "1B: a strategy and roadmap to achieve carbon peaking and neutrality in the national transport sector and the transportation sector of the selected provinces, featuring emerging innovations in mobility solutions;" Reason: the national government strategy in carbon peaking and neutrality is very general. The provincial government strategy in carbon peaking and neutrality will be more practically related to the project and used to scale up the project results.

For component 2, please split the budgets of the GEF funding and the co-financing investments to match the three demonstration pilots.

The GEF operations policy generally require the PMC funded proportionally by the GEF funding and the co-financing. Currently, the GEF PMC budget is 4.1% of the subtotal cost and the WB co-financing is 0.3%. Please consider revising the ratios or make a strong argument with details of the use of the PMC to justify the existing budget for the PMC.

4/19/2021 MY:

The budget of PMC is initially justified. Please keep it open for adjustment at the CEO ER stage if necessary.



The PM noticed that the WB has revised the project objective in addition to addressing the comments that were indicated on 4/13/2021.

Regarding the estimation of indirect GHG emission reduction, please see the comments in the box of core indicator below.

4/21/2021 MY:

The following comment is received from the PPO on the PMC Proportionality:

There is not proportionality in the co-financing contribution to PMC. If the GEF contribution is kept at 4.1%, for a co-financing of \$107,000,000 the expected contribution to PMC must be around \$4,387,000 instead of \$3,000,000 (which is 2.8%). As the costs associated with the project management have to be covered by the GEF portion and the co-financing portion allocated to the PMC, the GEF contribution and the co-financing contribution must be proportional, which means that the GEF contribution to PMC might be decreased and the co-financing contribution to PMC might be increased to reach a similar level. Please amend either by increasing the co-financing portion and/or by reducing the GEF portion at this time. A more definitive estimation of PMC will be presented and adjusted at CEO Endorsement stage.

4/22/2021 MY:

Yes, comments were addressed and the PIF was revised accordingly.

## **Agency Response**

4/12:

The project component description in the PCN has been revised based on the comments received. Paragraphs have been added (para 26, 29, 31 and 33 - all changes tracked) to better describe the baseline and additionality of the GEF-financed project activities at the national and provincial levels. The description of the pilot investments has been revised to clarify that these will support electric drive technologies, in line with the GEF-7 Programming Directions. Component 1 has been revised to include the preparation of both an overarching strategy and roadmap for diverse regions for achieving carbon peaking and neutrality.

Emission reduction calculations have been revised and are summarized in the PCN and the core indicators sections of the portal datasheet. A separate document is uploaded into the portal showing detailed calculations for each provincial pilot.

4/19:

The design of the project is to consolidate all national-level activities in component 1 and all provincial level activities in component 2. We have clarified that components 2 a, b, and c will include the development of a strategy and roadmap for each participating province. This has been updated in Table B and in para 27 of the PAD.

We have updated table B to separate components 2a, 2b and 2c. At this time, as we are still working out the details of the pilots, we have

notionally allocated the GEF funding and co-financing equally across all three pilot sites. During preparation, as the pilot investments are confirmed and their budget needs - including the needed support from the GEF - are clarified, we will revise the GEF and co-financing allocation appropriately.

On the proposed activity in Jiangsu province (component 2c), we received a proposal from MOT and Jiangsu Province to include a larger port (Yancheng Port) where there will be much larger emission reduction through electrification. We have revised the sub-component 2c description (paras 32 and 33 of the PAD). We have recalculated GHG emissions, using refined parameters and a more dynamic baseline. The methodology and assumptions are explained in the GHG calculations document. Estimated direct GHG reductions have been revised to 7.7 million tons and indirect emissions to 97 million tons. We have updated the core indicators table, PCN and the document with emissions reductions calculations accordingly.

PMC: We have increased the amount of PMC to be provided by co-financing to \$3,000,000, which is 2.8% of the project co-financing. The GEF-funded PMC will support the staffing of the national-level PMO and will provide modest support to the provincial PMOs (e.g., to support procurement and financial management for GEF-financed activities). The bulk of provincial level PMC will be supported through the co-financing. We recognize that the share of PMC is not directly proportional to the overall funding amounts. For large projects, the share of PMC as a proportion of overall funding decreases as the project funding amount increases, given that there are certain fixed costs associated with project management that do not proportionally increase as project funding increases. We will review the PMC as the detailed project costing is undertaken during preparation.

We have also revised the PDO to include carbon neutrality. The PDO now reads: The Project aims to enhance the national policy framework, establish national and sub-national roadmaps, and pilot emerging technologies in selected provinces, to decarbonize transport towards carbon neutrality.

4/21:

We have adjusted the PMC amount from co-financing to \$4,360,000 to ensure proportionality, as recommended. A more definitive estimation of PMC will be presented at CEO Endorsement stage.

## **Co-financing**

**3. Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?**

**Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Yes, the indicative expected amounts, sources and types of co-financing are adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines.

#### **Agency Response**

#### **GEF Resource Availability**

**4. Is the proposed GEF financing in Table D (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):**

#### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Yes.

#### **Agency Response**

#### **The STAR allocation?**

#### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Yes. The country has reserved \$11 million CCM funding for the project.

## **Agency Response**

### **The focal area allocation?**

#### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Yes. The country has reserved enough CCM funding for the project.

## **Agency Response**

### **The LDCF under the principle of equitable access?**

#### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

N/A

## **Agency Response**

### **The SCCF (Adaptation or Technology Transfer)?**

#### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

N/A

**Agency Response**

**Focal area set-aside?**

**Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

N/A

**Agency Response**

**Impact Program Incentive?**

**Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

N/A

**Agency Response**

**Project Preparation Grant**

**5. Is PPG requested in Table E within the allowable cap? Has an exception (e.g. for regional projects) been sufficiently substantiated? (not applicable to PFD)**

**Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

N/A. The WB does not need any GEF grant for PPG.

**Agency Response**

**Core indicators**

**6. Are the identified core indicators in Table F calculated using the methodology included in the corresponding Guidelines? (GEF/C.54/11/Rev.01)**

**Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Not at this time.

It seems that GHG accounting is not presented either in the PCN or in the datasheet. Please refer to it if the reviewer is wrong or present it in the submission.

Please be aware that the estimated GHG emission target is very low. Please consider re-designing this project to make it cost-effective in terms of delivering global environment benefits.

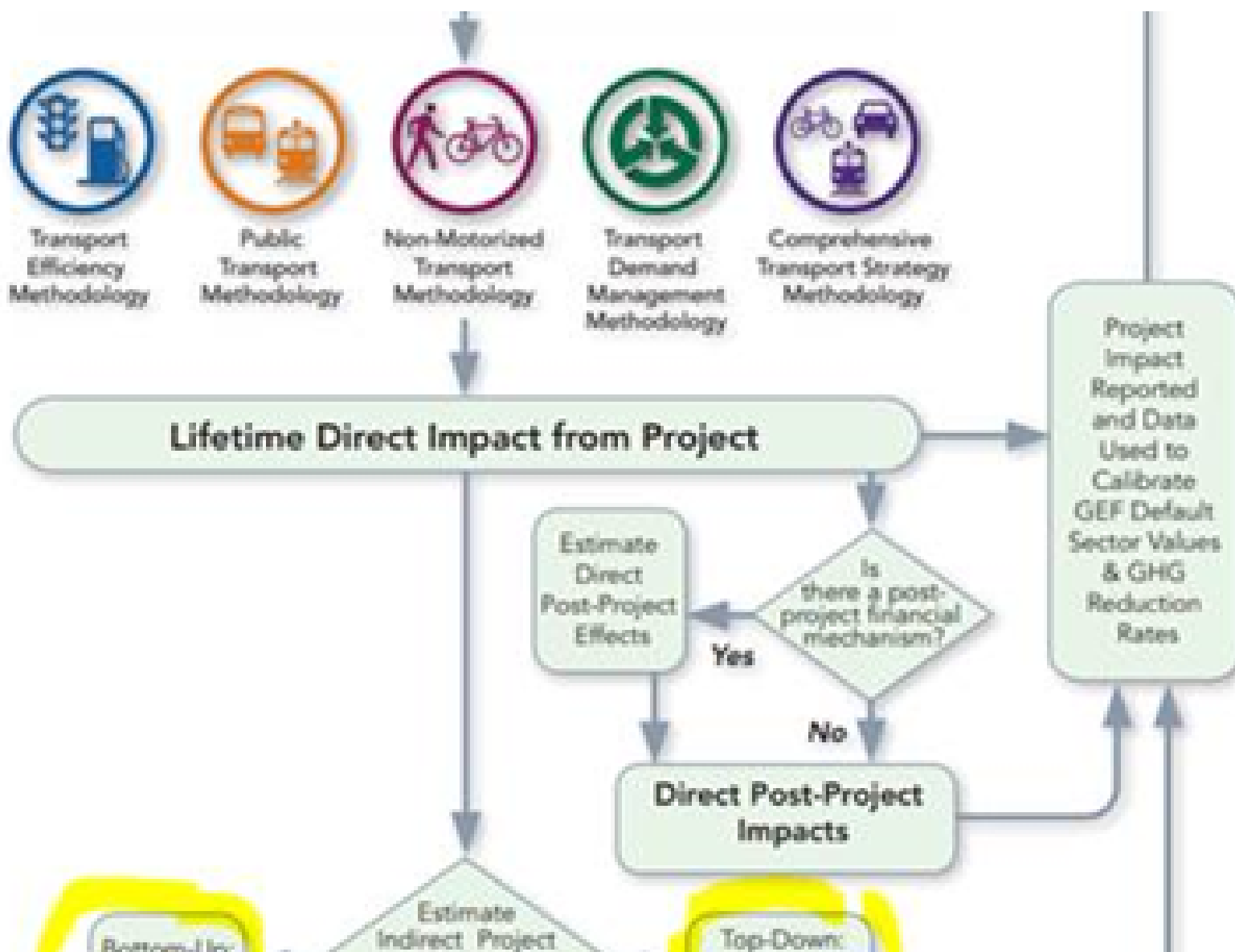
4/13/2021 MY:

Yes, the GHG accounting document is received in the GEF Portal. At CEO ER package, please update the data, assumptions and the

calculations. For example, the emission factors should be related to the individual pilot project sites.

4/19/2021 MY:

At the PPG stage, please undertake more detailed analysis on GHG accounting. Please be aware that the GHG direct emission reductions are accounted only from inside the sub-pilot projects, namely the selected ports. For the consequential or indirect GHG emissions, please follow the guideline of the GEF methodology. Here is a reference of the methodology framework:



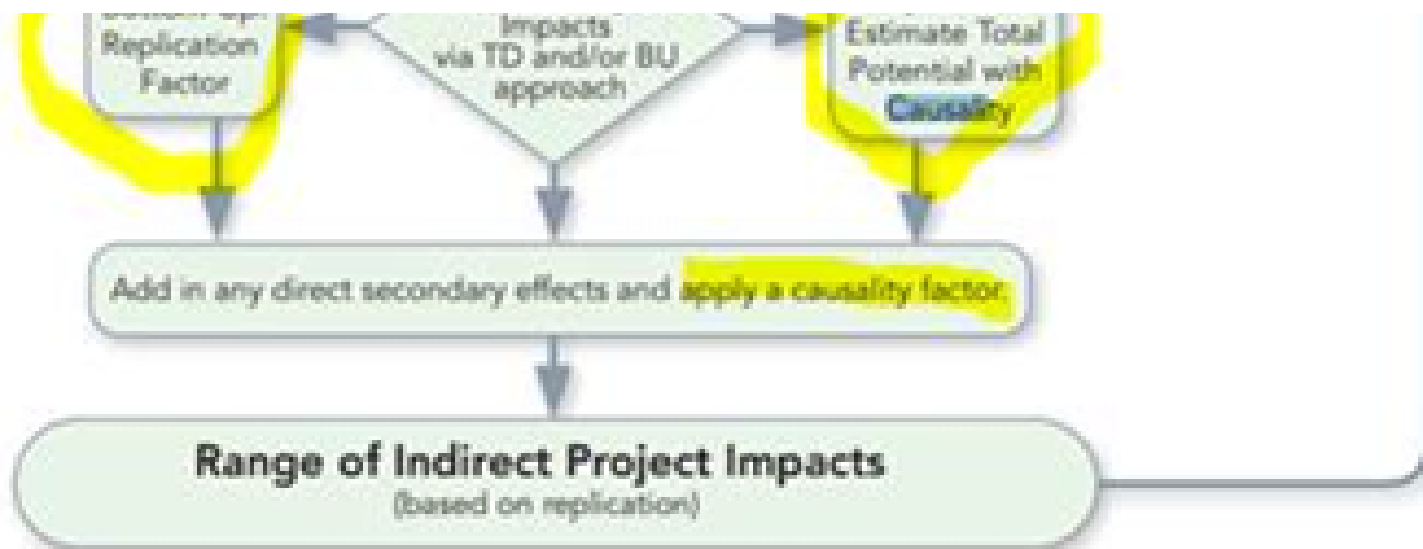
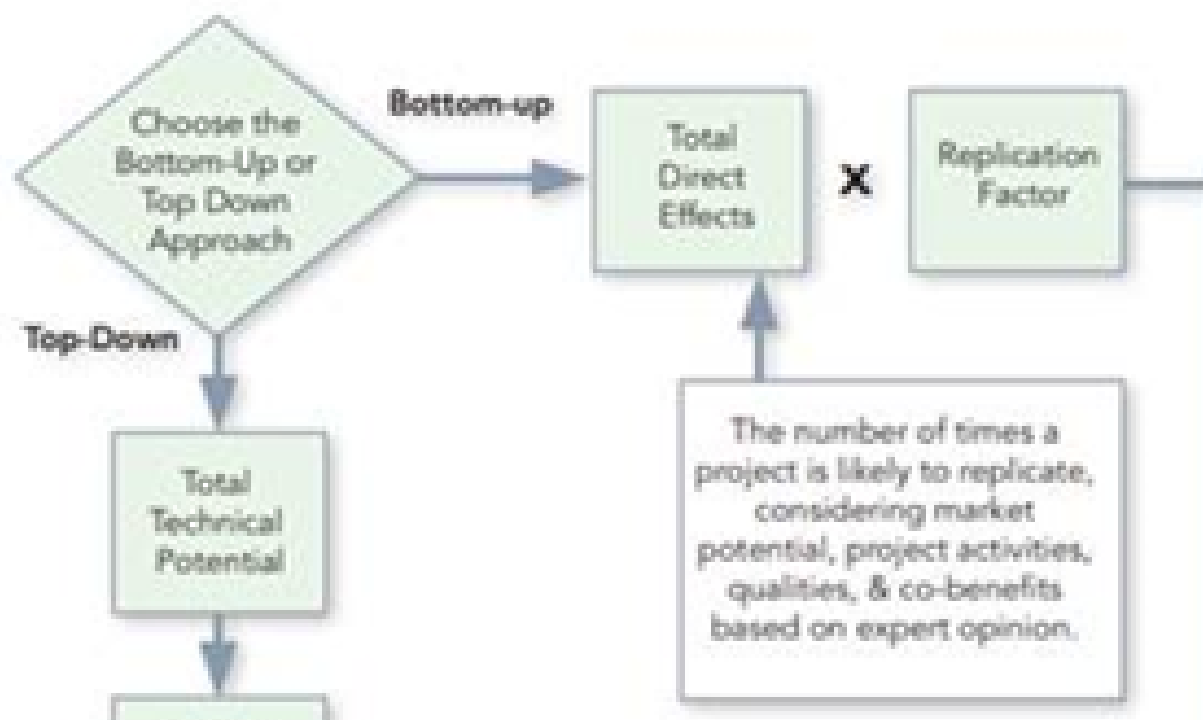


Figure 5: Flowchart for Indirect GHG Emission Reductions





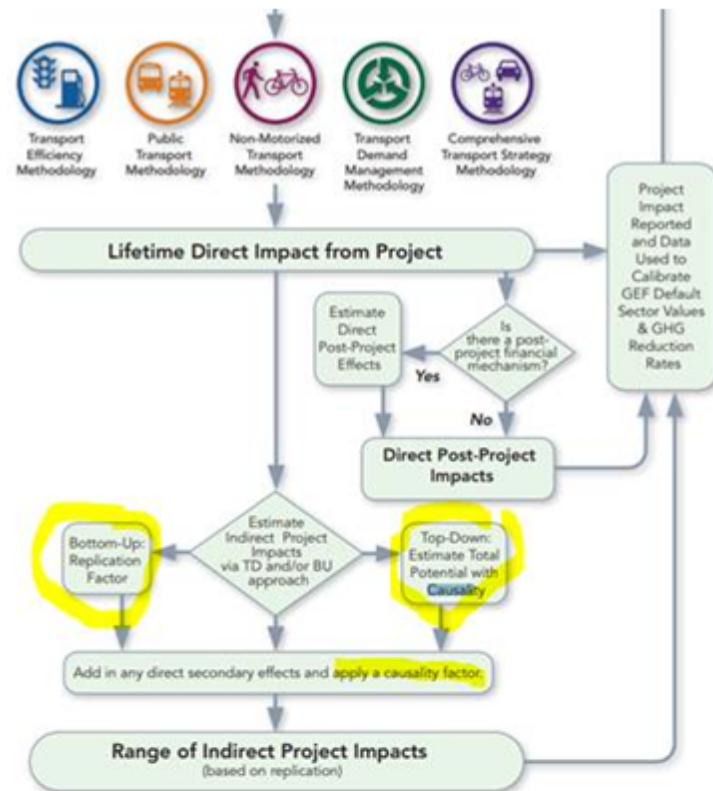
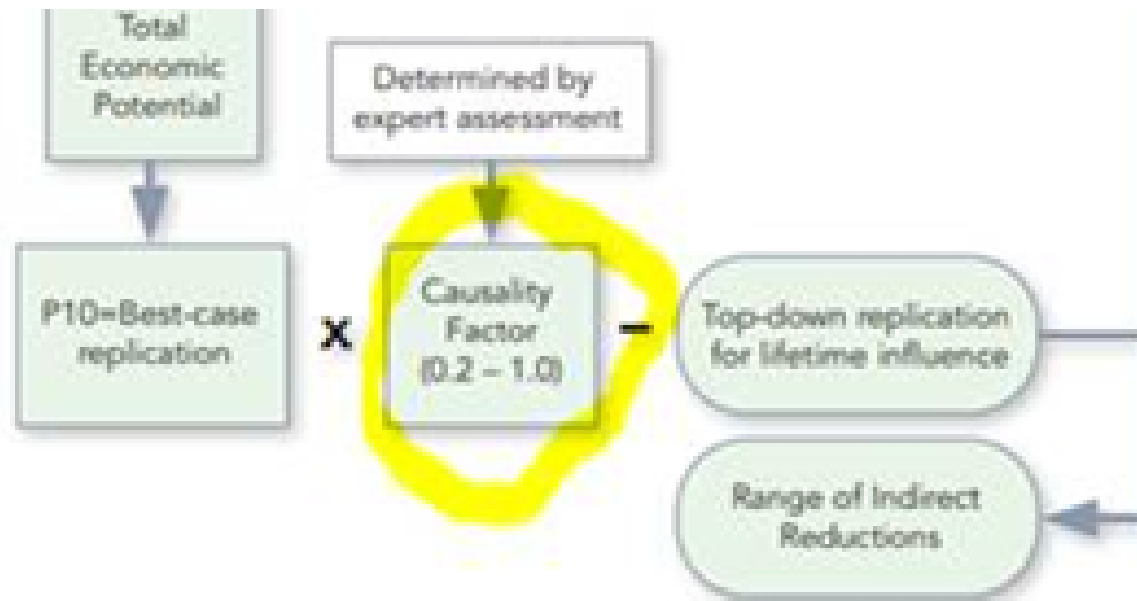
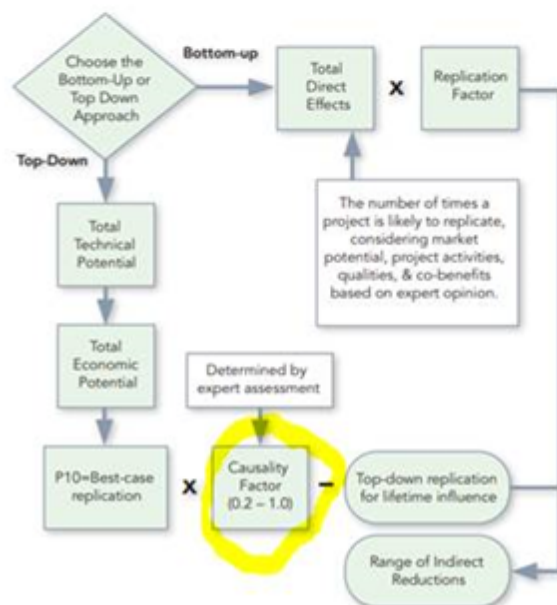


Figure 5: Flowchart for Indirect GHG Emission Reductions



4/21/2021 MY:

Please take one more opportunity to estimate GHG emission reductions before this PIF is moved forward for STAP review and for the Council to approve.

4/22/2021 MY:

Yes, comments were addressed and the PIF was revised.

## Agency Response

4/12:

The estimated emissions reductions have been revised. The total emissions reductions supported by the project are now estimated at 162 million tons (10.5 million tons direct reductions through the investments in the three provinces and 151.5 million indirect or consequential reductions through the replication effect of the three pilots across China). In addition, the Bank team is conducting an analytical work with the China Academy of Transport Science on the carbon reduction potential for China's transport sector under different scenarios. This work will produce, by CEO endorsement, the results from advancing the carbon peaking in the transport sector from 2035 under the BAU scenario to 2030 under the GEF scenario.

A summary of the GHG calculations is included in the PCN (para 51) and in the GEF portal datasheet. In addition, a separate file has been uploaded into the GEF portal showing detailed GHG reduction calculations for the project.

4/19:

As noted above, GHG calculations have been revised. GHG calculations will be further refined during project preparation.

4/22:

We have revised the indirect emissions estimate to show a level 1 GEF causality factor. The revised indirect emissions reduction estimate is 19.4 million tons. We have revised the portal entry and other documents accordingly.

## **Project/Program taxonomy**

### **7. Is the project/program properly tagged with the appropriate keywords as requested in Table G?**

#### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Yes, GEF 7 TAXONOMY is attached at Annex C in an MS-file.

#### **Agency Response**

### **art II – Project Justification**

#### **1. Has the project/program described the global environmental/adaptation problems, including the root causes and barriers that need to be addressed?**

### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Not completed at this time.

In the PCN, please do the following:

1. elaborate key environment issues that are related to China's transport and climate change;
2. articulate root drivers or causes of these issues;
3. identify barriers.

4/13/2021 MY:

Yes, comments were addressed and issues were cleared. At the CEO ER stage, please consider updating this section with more attention to zero-carbon e-mobility that will contribute to carbon neutrality to China's transportation sector in 2060.

### **Agency Response**

4/12:

The PCN has been reorganized to explicitly show the key environment issues, root causes/drivers, and barriers that the project intends to address. Please see section B of the PCN (paras 6-13).

4/19:

Thank you. This is noted, and we will further explore actions to support zero carbon mobility during project preparation.

## **2. Is the baseline scenario or any associated baseline projects appropriately described?**

### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Not at this time.

In the PCN, please clearly present a baseline scenario for China and the selected provinces or cities where the pilot projects will take place.

4/13/2021 MY:

Not completed at this time. There are some weeds in the description and justification of the baseline and the GEF additionality.

For example, it is not clear what the following sentence means: " **The target is to reach 100 percent electrification in Jiangyin Port by 2030, compared to zero percent without the GEF project, hence emissions from fossil fuel usage.**" Please revise it.

In the baseline, please articulate what will happen to the selected pilot ports, cities, provinces, and China in terms of carbon emissions from transport. Capital investments from the provinces are very important and interesting, but these numbers are not really directly linked to this GEF project, if this project cannot directly mobilize confirmed capital to the pilot demonstrations.

1. ***The baseline and GEF additionality.*** The pilot will electrify all port machinery and promote the use of renewable energy in the port area. The target is to reach 100 percent electrification in Jiangyin Port by 2030, compared to zero percent without the GEF project, hence emissions from fossil fuel usage. A green financing mechanism, when established and implemented, is expected to move capital allocation from traditional infrastructure projects to green investments and to direct resources for technology development and mainstreaming, aimed at promoting electric mobility and zero-carbon mobility solutions. In 2019, Jiangsu Province invested RMB 139.7 billion in transport, including RMB 73.3 billion (or 52.5 percent) in highways and roads, 50.1 billion in railways, 12.9 billion in waterways, and 3.3 billion in airport. The indirect emission reductions from such reallocation of capital resources will be estimated during the preparation.

4/19/2021 MY:

Yes, comments were addressed and issues were cleared. At the PPG stage, please use more accurate baseline data to update the calculation.

## Agency Response

4/12:

A new para 26 has been added to describe the baseline at the national level, which would lead to carbon peaking by 2025. Paras 29, 31 and 33 describe the baseline scenarios in each of the three provincial pilot locations.

4/19:

The descriptions of the provincial baselines and GEF additionality (paras 29, 31 and 33) have been updated to explain the parameters that would contribute to emissions growth in the BAU and GEF scenarios.

### 3. Does the proposed alternative scenario describe the expected outcomes and components of the project/program?

## Secretariat Comment at PIF/Work Program Inclusion

3/25/2021 MY:

Not at this time.

In the PCN, please clearly present an alternative scenario to justify the additionality of the GEF project. Then, justify the expected project results. Please relate these results directly to e-mobility.

### B. Key Results

1. The project would create foundation for China's transport sector to contribute to the eventual decarbonization goal. The proposed PDO level indicators are as follows:
  - a. Establishment of a national policy framework to enable decarbonization of transport by 2060
  - b. Number of roadmaps towards decarbonizing transport at national and in pilot cities/provinces
  - c. Number of innovative technologies and measures successfully piloted
  - d. GHG emissions against the business-as-usual (BAU) scenario
2. The intermediate outcome indicators are proposed as follows:
  - a. Integrated mobile platform developed in pilot locations
  - b. Share of new energy vehicles of total public transport fleets in pilot locations
  - c. Pipeline of projects that would contribute to decarbonization of transport, identified in pilot locations
  - d. Participation in training and knowledge sharing activities

4/13/2021 MY:

Yes, comments were addressed and issues were cleared. At the CEO ER stage, please elaborate the numbers of roadmaps and key studies or analyses that will be linked to the pilot demonstration projects and scaling up the results of the project.

## Agency Response

4/12:

As described in para 26, in the BAU scenario without the proposed project, the transport sector is expected to achieve carbon peaking by 2035, according to the results of a scenario analysis carried out by a research team led by Tsinghua University and including the China Academy of Transportation Sciences affiliated with the Ministry of Transport (results were presented to MoT in October 2020). With the

proposed GEF-financed project, carbon peaking in the transport sector is expected to advance by 5 years and be achieved by 2030, in line with the national level target announced by China's President Xi in September 2020.

The expected key results have been revised to better reflect a focus on e-mobility. Please see below and paras 18-19 of the PCN.

The project would create foundation for China's transport sector to contribute to the eventual decarbonization goal. The proposed PDO level indicators are as follows:

- a. Establishment of a national policy framework to enable carbon peaking in 2030 and neutrality by 2060
- b. Number of roadmaps towards transport carbon peaking and neutrality at national and in pilot cities/provinces
- c. GHG emissions against the business-as-usual (BAU) scenario

The intermediate outcome indicators are proposed as follows:

- a. Number of key studies and analyses carried out
- b. Share of trips made by electric vehicles in pilot city/provinces
- c. Electricity in transport use generated by renewable sources in pilot city/provinces
- d. Integrated mobile platform developed in pilot city/provinces
- e. Pipeline of projects to enable transport carbon peaking and neutrality identified in pilot city/provinces
- f. Participation in training and knowledge sharing activities

4/19: Thank you. Comment is noted and will be reflected in the project results framework submitted at CEO ER stage.

#### **4. Is the project/program aligned with focal area and/or Impact Program strategies?**

##### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Yes, if the project is designed to promote e-mobility.

##### **Agency Response**

4/12:

The project component descriptions have been revised to clarify that the project is designed to promote e-mobility.

**5. Is the incremental/additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?**

**Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Not at this time.

In the PCN, please provide incremental/additional cost reasoning.

4/13/2021 MY:

Yes, comments were addressed and issues were cleared.

**Agency Response**

4/12:

The incremental reasoning is presented in para 52 of the PCN, namely, to advance the carbon peaking in transport by up to 5 years (from 2035 under a BAU scenario to 2030 under a GEF project scenario), through comprehensive roadmaps both at national level and in selected pilot city/province. Advancing the peaking point would decrease the total aggregate emissions and increase the likelihood of achieving carbon neutrality by the target year in 2060.

**6. Are the project's/program's indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation benefits?**

**Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Not completed at this time.

Please provide data, assumptions, methodology and calculation for the estimated GHG emission reduction of 5,300,000 tonnes of CO<sub>2</sub>.

4/13/2021 MY:

Yes, comments were addressed and the PIF package was revised. In the CEO ER stage, please update the data and the calculations.



### **Agency Response**

4/12:

Estimated GHG reductions have been revised to 162 million tons (10.5 m tons direct and 151.5 m tons indirect) over a 20-year period. A file containing detailed GHG calculations has been uploaded into the portal. These estimates will be further refined during project preparation.

4/19:

Thank you. GHG calculations will be further refined during preparation.

## **7. Is there potential for innovation, sustainability and scaling up in this project?**

### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

The arguments on innovation, sustainability and scaling up on page 15 of the PCN are very weak. Please consider making them stronger.

4/13/2021 MY:

Yes, comments were addressed and the PCN was revised accordingly.

### **Agency Response**

4/12:

The description of project innovation, sustainability and scale up has been strengthened in paras 59-60 of the PCN.

## **Project/Program Map and Coordinates**

## Is there a preliminary geo-reference to the project's/program's intended location?

### Secretariat Comment at PIF/Work Program Inclusion

3/25/2021 MY:

Not completed. In the PCN, please provide a map to show the project's geo-locations.

4/13/2021 MY:

Yes, the MAP is included in the datasheet. This project will not cause any territory disputes with China's neighboring countries.

### Agency Response

4/12:

A map is included in the GEF portal datasheet which includes provincial pilot sites and geo-coordinates.

## Stakeholders

**Does the PIF/PFD include indicative information on Stakeholders engagement to date? If not, is the justification provided appropriate? Does the PIF/PFD include information about the proposed means of future engagement?**

### Secretariat Comment at PIF/Work Program Inclusion

3/25/2021 MY:

Not yet.

- Please include indicative information on Stakeholders engagement to date.
- Please describe any consultations that took place in the design of the project.
- If not, a *justification* is needed to explain why consultations have not taken place (for Guangxi province for instance)
- Please check that key stakeholders have been identified – i.e. through a stakeholder analysis or comprehensive list of stakeholders. Are there any Indigenous Peoples and Local Communities present in the area and have they been consulted? Which stakeholders will be

affected by the project? Have they been consulted?

- Please include information about the future roles of stakeholders and proposed means of future engagement. Are the future roles of stakeholders identified? Is the project engaging stakeholders through adequate means? Is there a description of those means?
- 
- 4/13/2021 MY:
- Yes, comments were addressed and the PIF package was revised. At the CEO ER stage, please present more detailed stakeholder engagement analysis results.

### **Agency Response**

4/12:

The PCN and portal datasheet have been updated to include information on consultations that have taken place during project identification as well as stakeholder mapping (table included in datasheet). A comprehensive stakeholder analysis will be conducted during preparation that will identify specific local communities and social groups that will be affected by and/or have an impact on the project activities. A stakeholder engagement plan will be prepared during project preparation.

For Guangxi province, of which inclusion in the pilot was suggested by MOF at a late stage in project identification, stakeholder consultations have not yet been carried out. The provincial government is currently preparing a technical proposal for hydrogen use in Qinzhou Port; stakeholder consultations will be carried out when the proposal is submitted to and reviewed by the MOT.

4/19:

Comment is well noted. We will prepare a stakeholder engagement plan, including complete stakeholder mapping/analysis, that will be submitted at CEO ER stage.

### **Gender Equality and Women's Empowerment**

**Is the articulation of gender context and indicative information on the importance and need to promote gender equality and the empowerment of women, adequate?**

### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Not completed at this time.

- Please include considerations of gender and information on preliminary findings on gender-specific context of the project
- Please describe plans to address gender during the project development phase, including description on planned gender responsive measures/activities to address gender gaps or promote gender equality and women's empowerment
- Please confirm that the appropriate gender tags have been ticked

4/13/2021 MY:

Yes, comments were addressed and the PCN was revised. At the CEO ER stage, please present more detailed information on how this project pilot demonstrations will promote gender equality and the empowerment of women in carbon neutrality pathway.

4/21/2021 MY:

The PPO put the following comments on genders equality and women's empowerment. Please address them.

It is well noted that the some gender considerations were included in the PIF submission. It is, however, unclear how the project intends to make sure gender responsive stakeholder consultations during project developments. While, it is stated that project will promote gender equality through incorporating gender considerations in project design, implementation, and M&E, the stakeholder section does not specify or identify any specific groups or local/national ministries responsible for gender equality. Please elaborate on measures to ensure gender responsive consultations to inform project development.

4/22/2021 MY:

Yes, comments were addressed, and the World Bank has initially specified specific groups to carry all the required work that is related to Gender Equality and Women's Empowerment at the PPG stage when the participating provinces are finalized.

## **Agency Response**

4/12:

The description of the project's approach to incorporate gender considerations has been revised in the PCN (para 37) and in the portal datasheet. The appropriate gender tags (improving women's participation and decision-making; and generating socio-economic benefits or services for women) have been selected in the portal datasheet.

4/19:

Comment is noted. We will present at CEO ER stage a more detailed plan of gender actions to be supported by the project.

4/22:

During the design and implementation of the pilot activities, the project will engage the local women's federation in the participating provinces to carry out consultations with affected women and ensure women's needs and considerations are taken into account in the pilot investments. This gender-differentiated feedback will be incorporated into the project design and M&E as well as to inform the development of roadmaps, policies and strategies, etc. We have adjusted the language in the gender and stakeholder sections in the portal to reflect this.

## **Private Sector Engagement**

**Is the case made for private sector engagement consistent with the proposed approach?**

### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Not completed at this time.

In the PCN, please write one section on private sector engagement.

4/13/2021 MY:

Yes, comments were addressed and the PCN was revised. But in the CEO ER stage, please indicate how the private sector will be incentivized in investing zero-carbon transport in China for the 2060 carbon neutrality goal.

### **Agency Response**

4/12:

Please see para 55 of the PCN which explains the project's approach to private sector engagement. The portal datasheet section on private sector has also been revised.

4/19:

Comment is noted. The project document submitted at CEO ER stage will include further elaboration on how the project will incentivize the private sector to invest in decarbonization in the transport sector towards carbon neutrality.

## Risks to Achieving Project Objectives

**Does the project/program consider potential major risks, including the consequences of climate change, that might prevent the project objectives from being achieved or may be resulting from project/program implementation, and propose measures that address these risks to be further developed during the project design?**

### Secretariat Comment at PIF/Work Program Inclusion

3/25/2021 MY:

Not at this time.

Please write the project document carefully. When copy and paste something, please read what to copy and pastes, revise it and make it relevant to the project. For example, paragraph 45 in the PNC reads the following:

1. **Climate Change risk is *Moderate*.** There would be risks associated with the increased consumption of electricity required by a greater shift toward e-mobility, which, in the absence of greater penetration of renewables could lead to increased coal consumption. The proposed energy project for China under GEF-7, which is being prepared in coordination with the proposed Project, aims to address bottlenecks to increased penetration of renewables. Climate risks will be taken into account in the preparation of the studies and demonstration activities supported by the pilot and mitigation measures appropriate to the activity will be identified.

It is evident that the above paragraph is copied from the WB/GEF project:

Promoting China's Energy Revolution Towards Carbon Neutrality Project (P175708)

In the PNC, please change it and also please write two individual paragraphs on COVID-19: (1) Challenges and impacts of COVID-19 on this project; (2) Opportunities of COVID-19 from this project.

4/5/2021 MY and FB:

"The climate change risk referred to here is related to the climate risks to the project, rather than from the project. In other words, the Agency needs to address risks from climate variability and expected future changes to the project-financed infrastructures; rather, the

climate change risk is not about the increased emissions which could stem from the project's need of additional electricity. A description of

the climate scenario projected at the project locations, and the potential consequences to the project-financed infrastructures should be provided at PIF level, and then further elaborated at CEO ER level with the identified mitigation measures. Please refer to the GEF STAP guidance on climate risk for this assessment: <https://www.thegef.org/council-meeting-documents/stap-guidance-climate-risk-screening>"

4/13/2021 MY:

Yes, comments were addressed and the PCN was revised.

### **Agency Response**

4/12:

Please see the new paras 46-47 that have been added to the PCN that include a description of the overall climate risks to the project and preliminary climate risks identified for each of the three pilot investment locations. More in-depth screening will be conducted during project preparation to further assess risks, and mitigation measures proportional to the risk will be identified. During implementation, identified climate risks will inform the preparation of the studies and pilot projects.

Please see paras 48-49 for a description of COVID-related risks and opportunities.

### **Coordination**

**Is the institutional arrangement for project/program coordination including management, monitoring and evaluation outlined?  
Is there a description of possible coordination with relevant GEF-financed projects/programs and other bilateral/multilateral initiatives in the project/program area?**

### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Yes, it is stated on page 16 of the PNC.

#### **Agency Response**

#### **Consistency with National Priorities**

**Has the project/program cited alignment with any of the recipient country's national strategies and plans or reports and assessments under relevant conventions?**

#### **Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Yes, China is still developing e-mobility as one of its national strategies although it is not the top priority.

#### **Agency Response**

#### **Knowledge Management**

**Is the proposed "knowledge management (KM) approach" in line with GEF requirements to foster learning and sharing from relevant projects/programs, initiatives and evaluations; and contribute to the project's/program's overall impact and sustainability?**

#### **Secretariat Comment at PIF/Work Program Inclusion**



3/25/2021 MY:

Not at this time.

Please write a section on knowledge management with a focus on:

1. an overview of existing lessons and best practice that inform the project concept
2. plans to learn from relevant projects, programs, initiatives & evaluations
3. proposed processes to capture, assess and document info, lessons, best practice & expertise generated during implementation
4. proposed tools and methods for knowledge exchange, learning & collaboration
5. proposed knowledge outputs to be produced and shared with stakeholders
6. a discussion on how knowledge and learning will contribute to overall project/program impact and sustainability
7. plans for strategic communications
- 8.

4/13/2021 MY:

Yes, comments were addressed and the PCN was revised.

## **Agency Response**

4/12:

The description of knowledge management activities has been revised. Please see paras 57 and 59 for a description of the existing domestic and international lessons and experience that have informed project design. Please see para 61 for a description of the processes to capture and share information and a discussion on how knowledge and learning will contribute to uptake and sustainability.

## **Environmental and Social Safeguard (ESS)**

**Are environmental and social risks, impacts and management measures adequately documented at this stage and consistent with requirements set out in SD/PL/03?**

**Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

3/25/2021 MY:

Yes, the ESS is saved in the folder of the project document in the Portal.

#### Agency Response

#### art III – Country Endorsements

Has the project/program been endorsed by the country's GEF Operational Focal Point and has the name and position been checked against the GEF data base?

#### Secretariat Comment at PIF/Work Program Inclusion

3/25/2021 MY:

Yes. the LoE is loaded in the project document folder.

#### Agency Response

#### Termsheet, reflow table and agency capacity in NGI Projects

Does the project provide sufficient detail in Annex A (indicative termsheet) to take a decision on the following selection criteria: co-financing ratios, financial terms and conditions, and financial additionality? If not, please provide comments. Does the project provide a detailed reflow table in Annex B to assess the project capacity of generating reflows? If not, please provide comments. After reading the questionnaire in Annex C, is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

#### Secretariat Comment at PIF/Work Program Inclusion

3/25/2021 MY:

N/A

**Agency Response**

**EFSEC DECISION**

**RECOMMENDATION**

**Is the PIF/PFD recommended for technical clearance? Is the PPG (if requested) being recommended for clearance?**

**Secretariat Comment at PIF/Work Program Inclusion**

3/25/2021 MY:

Not at this time.

Please address the above comments.

4/5/2021 MY and FB:

Not at this time.

Please address the above comments.

4/13/2021 MY:

Not completed yet. Please address the comments above.

4/21/2021 MY:

Please address the issues on PMC, GHG accounting, and gender.

**ADDITIONAL COMMENTS**

## **ADDITIONAL COMMENTS**

**Additional recommendations to be considered by Agency at the time of CEO endorsement/approval.**

### **Secretariat Comment at PIF/Work Program Inclusion**

4/21/2021 MY:

At the CEO ER stage, please:

1. elaborate the selection of Guangxi province as a pilot demonstration province for green hydrogen fuel cell technologies;
2. justify, with evidence and strong arguments that are related finalized pilot demonstrations, the PMC with different shares of GEF and co-financing contributions.
3. make sure the co-financing amounts are materialized;
4. make sure the GEF funding is only budgeted to e-mobility and carbon neutrality policy and strategy development;
5. update the data in baseline scenario, GEF project scenario, GEF project additionality, at both the national government policy level and selected provincial or municipal government policy level.
6. ensure GHG accounting methodology, data, and assumptions are sound and complying with the GEF recommended methodology or the UNFCCC recommended methodology.

**/iew Dates**

	PIF Review	Agency Response
First Review	3/26/2021	4/13/2021
Additional Review (as necessary)	4/5/2021	4/19/2021
Additional Review (as necessary)	4/13/2021	4/22/2021
Additional Review (as necessary)	4/22/2021	
Additional Review (as necessary)		

## PIF Recommendation to CEO

### Brief reasoning for recommendations to CEO for PIF Approval

The objective of the project is to enhance the national policy framework, establish national and sub-national roadmaps, and pilot emerging technologies in selected provinces, to decarbonize transport towards carbon neutrality. The project has three major components: (1) Policy Framework and Roadmap for Transport Carbon Peaking and Neutrality; (2) Pilot Implementation for Transport Carbon Peaking and Neutrality in Diverse Regions; (3) Capacity building to strengthen institutional capacity for implementing policies, strategies, and investment for decarbonizing transport towards carbon neutrality. The project is innovative since it is the first project in China that will assist the Chinese government (the Ministry of Transport of China) to develop new and long-term carbon neutrality policy, regulations, and capacity in the transportation sector and in Chinese provinces and cities. The project will demonstrate how these policy and regulations are effective in three or four selected provinces. With \$10 million GEF funding, this project will leverage \$110 million of co-financing, consisting of a World Bank to the government of China and a government self-raised grant. If the policy, regulation, and demonstrated technologies are successful and scaled up all over China, the project will have a very significant impact on GHG emission reductions in the transportation sector, aiming at about 100 million tonnes in the lifetime of the project.

Overall, climate Change risk is moderate. While climate change would increase exposure of existing and future transport infrastructure to extreme weather events, the recently developed transport infrastructure in China has followed the enhanced technical standards and based on available meteorological data and hydrological modeling. In addition, the carbon peaking and neutrality roadmaps to be proposed by this project will take into account the needs for replacing or retrofitting existing assets in Yantai city, Jiangsu Province, and Henan province for pilot demonstration.

COVID-19 challenges and measures to deal with the challenges: During the implementation of the Project, restrictions on travels and face-to-face meetings could result in delays preparation and implementation activities and reduces the effectiveness of monitoring. The Project will employ various IT solutions and innovative project monitoring tools, for which the Bank has accumulated experience over the past year while operating under unpredictable environment, to ensure effective preparation and implementation.

COVID-19 Opportunities: Transport ridership in China plummeted during the pandemic, both due to the imposed restrictions and travelers' preference to use individual modes for safety and health reasons. This would therefore be critical for new zero-carbon mobility solutions under the project to factor in the public health and safety consideration in designing of vehicles and operation, to maintain the public's trust and confidence in public transport systems and ensure the Project's impacts. In addition, the pandemic also accelerated the trends towards remote- and flexible-work, which resulted in less travels and may have permanent effects on carbon emission in transport sector.