

Pathways for Decarbonizing Transport towards Carbon Neutrality in China

Review CEO Endorsement and Make a recommendation

Basic project information

GEF ID

10790

Countries

China

Project Name

Pathways for Decarbonizing Transport towards Carbon Neutrality in China

Agencies

World Bank

Date received by PM

6/16/2022

Review completed by PM

11/1/2022

Program Manager

Ming Yang

Focal Area

Climate Change

Project Type

FSP

PIF

CEO Endorsement

Part I ? Project Information

Focal area elements

1. Does the project remain aligned with the relevant GEF focal area elements as presented in PIF (as indicated in table A)?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

In Table A, under the Focal Area Outcomes, it reads "Promote innovation and technology transfer for sustainable energy breakthroughs for decentralized power with energy usage". This statement does not fit the project.

Please check GEF 7 programing direction and the contents of the project document package, and revise Table A to align it with the relevant GEF focal area.

8/17/2022 MY:

Not at this time.

Per the document of the GEF 7 programing dictions, GEF CCM 1-1 is a window for "De-centralized renewable power with energy storage", which does not fit the project objective in line with the GEF 7 programing dictions. Please revise the selection and select CCM1-2.

10/3/2022 MY:

On 9/19/2, The Agency only changed GEF CCM 1-1 into GEF CCM 1-2; the content should also be changed accordingly. In the new version of the CEO ER document, its shows the following: "CCM-1-2 Promote innovation and technology transfer for sustainable energy breakthroughs for decentralized power with energy usage". It is not

correct. Please read the GEF 7 programming directions and copy and past GEF CCM 1-2 objective.

10/14/2022 MY:

Yes, cleared.

10/28/2022 MY:

Please address the following comments from the PPO unit of the GEF:

1. On core-indicators: Please include the core indicators in the results framework (annex A). Core Indicators targets need to be aligned with Results Framework (Annex A). GEF Core Indicators should be explicitly mentioned in the Results Framework in Annex A.

2. The budget presented in Annex E can't be reviewed as is. It only includes one line for contractual services for the entire project resources. A comment in the review sheet seem to indicate that budget breakdown is not required. Please provide details for all the contractual services so one can assess the reasonability on how they were charged to the three sources (project components, M&E and PMC). Once provided, the budget will be further reviewed and comments may be further provided as appropriate.

11/1/2022 MY:

The Agency tried to address the comments of the PPO. If further clearance is not needed from the PPO, all commends are cleared.

Agency Response

WB 8/12/22:

We understand that all GEF-financed projects must align with one or more of the GEF focal areas. We selected the focal area CCM 1-1 given that the project supports a "whole of system" approach that will encompass multiple technologies, and this seemed to be the most closely aligned. However, if it is the GEF preference that we select CCM 1-2 related to electric drive technologies we can make this change.

WB 9/19/22:

This is well noted and the change to CCM1-2 is reflected in the revised submission.

WB 10/5/22

Entry has been revised to reflect correct CCM1-2 objective.

WB 11/1/22

Core indicators: As we noted in the explanation that accompanies Annex A, as per World Bank policy and practice, the Results Framework of a World Bank project includes only indicators that measure outputs/outcomes supported by the financing provided by the World Bank (in this case the GEF financing implemented through the World Bank) and are *measurable within the implementation period of the World Bank project*. Since the GHG emissions to be generated by the project are in large part (i) achieved through the co-financing, and (ii) achieved mostly outside of the project implementation period, the GEF core indicator for GHG emissions avoided or reduced is not included in the project's Results Framework as presented in the PAD. The World Bank and project Executing Agency (MoT) commit to monitoring GHG reductions and reporting to the GEF Secretariat on core indicator 6 at the Mid-Term-Review (MTR) and terminal evaluation stages. The same applies for core indicator 11, direct beneficiaries. This is the same approach we have followed with other recent World Bank GEF projects, including 10494 (Indonesia), 10822 (china), 10530 (Rwanda), 10749 (Brazil), and 10735 (Mexico).

Budget: An updated budget has been uploaded (copy also uploaded in the documents section).

Project description summary

2. Is the project structure/design appropriate to achieve the expected outcomes and outputs as in Table B and described in the project document?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY and FB

Not at this time.

Specific comments on Component 1: National Roadmap and Policy Framework towards Carbon Neutrality

The expected outcomes of Component 1 consist of two elements (1) National roadmap established to decarbonize transport towards carbon neutrality; and (2) Policy framework for innovation and scale-up of clean energy in transport enhanced. They look good.

The expected outputs of Component 1 consist of four elements (1) A national roadmap for decarbonizing transport developed that integrates adequate gender and disability

considerations; (2) Eight draft policies and technical guides on emerging technologies for decarbonizing transport; (3) Published studies as inputs to the national strategy for transport sector decarbonization towards carbon neutrality by 2060; and (4) A carbon emission accounting and monitoring system for transport sector developed and piloted in a selected province/city. It is evident that the expected outputs are not fully supporting the expected outcomes of Component 1 and hence the objective of the project.

Please consider the following as the outputs for Component 1:

1. A national roadmap for decarbonizing transport developed, which includes: 1.1 projection of the number of total registered Chinese vehicles from 2022 to 2030, 2040, 2050 and 2060, with focus on the internal combustion engine vehicles, and 1.2 development of a time bounded national action plan with new public policy, regulation and incentives to switch from internal combustion engine vehicles to electric vehicles and other zero-carbon emission vehicles, which must be supported by continued battery improvement, scaling up the charging infrastructure, and investment in other infrastructure for zero-carbon emission vehicles. This step will involve phasing out internal combustion engine vehicles on a large scale in China.

The national action plan should be supported by the commercialization of green hydrogen fuel vehicles to ensure net zero carbon emissions from newly sold vehicles from 2023 to 2060.

The national plan will also encourage the rapid commercialization of sustainable aviation fuels and green marine fuels (including green hydrogen), with high targeting ratio of penetration by 2060.

Please be aware that the GEF project TA results should NOT be in a form of "Published studies". Rather, they should be in the form of a government white paper or a regulation guide, namely in a national policy and strategy framework document, to mainstream and guide China's transport sector towards carbon neutrality by 2060. This is the key output of the project according to the requirement and expectation of the Ministry of Finance and the Ministry of Transport of China.

It is not clear why the project needs to deliver "Eight draft policies and technical guides on emerging technologies for decarbonizing transport". Please elaborate it.

It is important to support the development of adequate carbon emission accounting and monitoring system for China's transport sector. Nevertheless, it should be justified why the existing monitoring systems are not adequate and demonstrate how the newly developed monitoring systems will significantly benefit the global environment benefits. In any case, this activity should only use very limited resources from GEF TA. If a large amount of funding is needed for the activity, please consider using co-financing resources to support it.

Page 6 of the PAD indicates " the Number of vehicles in China nearly doubled from 192 million in 2010 to 372 million in 2020, at an average annual rate of 6.8 percent." Figure 1 on page 6 also shows that carbon emissions (and vehicle population in China) will continue increasing until 2040 under the business as usual (BAU) scenario. However, the project document package does not show any GEF project scenario for Component 1, namely a scenario of net-zero carbon or carbon neutrality pathway for China's transport sector. Many international organizations have done this work. For example, in 2019, the WRI published a study entitled " TOWARD ?NET ZERO? EMISSIONS IN

THE ROAD TRANSPORT SECTOR IN

CHINA" <https://wri.org.cn/sites/default/files/2021-12/toward-net-zero-emissions-road-transport-sector-china-CN.pdf>. Please undertake a literature review on China's current net-zero carbon pathway with focus on policy, strategy, regulation and incentives, etc. With that, please further analyze and justify the additionality of the GEF project in helping China to better achieve the net-zero carbon pathway due to the innovative policy and regulations to be developed by the GEF project. With the additionality, consequential or indirect GHG reduction by the project can be easily calculated and justified.

For each of the expected outputs, at the end of the description, please indicate the budgets of the GEF funding and the co-financing.

Comments on Component 2: Pilot Implementation towards Transport Carbon Peaking and Neutrality

For output 1.2 "Research and development of new energy vessels; two new energy vessels and their power units developed (co-financing)", please elaborate the two new energy vessels and their power units. R&D is not an eligible expense for GEF CCM financing and GEF financing. Rather, GEF CCM funding should be used for development of new policy, demonstration of effectiveness of the new policy, and deployment and de-risking of technically sound but financially still-unattractive emerging technologies.

For output 1.3, on page 13 of the PAD, it reads "Development of technical guides on hydrogen fuel cell electric vehicle (FCEV) buses, through a comprehensive evaluation of the economic, technical, operational, and environmental impacts of the ongoing FCEV bus pilot in the province, to identify policies to address barriers to long-term technical and financial viability of the FCEV technology and associated infrastructure development and to develop technical and operational guidelines for FCEV buses. Shandong Provincial Department of Transport (DOT) intends to apply the developed guidelines for future FCEV projects, which will accelerate the adoption of FCEV in Shandong. The study findings will also inform relevant national policies and technical standards/guidelines." According to China Daily on 2021-07-06, the Qingdao Dexian New Energy Automobile Manufacturing, a private company (<https://www.zhipin.com/gongsi/ce133a614faa75711nd43tm7EVQ~.html>) has full capacity to produce hydrogen fuel, hydrogen-powered battery systems and catalysts. Having successfully completed its technology demonstration, the company aimed at producing 2,000 hydrogen-powered vehicles on the road from 2021-2024. please see the article entitled "Shandong launches hydrogen truck fleet to reduce carbon emissions" at <https://www.chinadaily.com.cn/a/202107/06/WS60e3bc3da310efa1bd65ff6e.html>. The mentioned evaluation work is important for Shandong province, but it should not be a key activity for GEF financing, since the private sector is rushing to invest in hydrogen trucks now. The GEF funding should be used to catalyze private investment in innovative yet still not commercially developed areas, but not for their on-going operations. Please use co-financing to support this TA activity. Please check all other outputs in Shandong, Jiangsu and Henan to make sure that the GEF funding will not support operations of mature market-ready technologies.

By the way, information on Jiangsu province is missing in Table B of the CEO ER document. Please include such information.

The demonstration project in Shandong should also include implementation or application of the new policy and regulation framework that is to be developed with the GEF component 1. For example, the effectiveness and impact of the new policy and strategy of phasing out the existing internal combustion engine vehicles in a large

scale in the province should be tested. Part of the GEF budget can be used to facilitate the testing.

For each of the expected outputs, at the end of the description, please indicate the budgets of the GEF funding and the co-financing.

Comments on Component 3: Capacity building

Expected Outcomes: Improved knowledge and capacity on transport decarbonization

Expected Outputs: Technical Assistance Improved knowledge and capacity on transport decarbonization, - 10 Knowledge dissemination workshops and conference; - 1000 persons trained in training and knowledge exchange program, including 400; females - 3 study tours.

In the CEO ER package, it seems that there is no rationale why the GEF should support the improvement of knowledge and capacity on transport decarbonization. Please undertake a literature review on China's knowledge and capacity in transport decarbonization. There are tons of information on the website in this topic given that the GEF and other international organizations have supported China in decarbonization for decades.

Please provide more details on the 10 workshops and conferences, such as workshop agenda and training materials, resource persons, venues, days, etc. Please elaborate the 1000 participates.

Please be informed that the GEF funding does not support study tours.

The budget of \$800,000 for capacity building is too high. Please consider reallocating part of the budget to other outputs such as policy application and implementation in provinces.

For each of the expected outputs, at the end of the description, please indicate the budgets of the GEF funding and the co-financing.

8/17/2022 MY:

1. The comments on the scope and goal of the project in Components 1 and 2 are cleared: During the four-party (the MOF, the MOT, the WB and the GEF) meeting on July 29, 2022, the representative of the MOT stated that the development of the long-term national policy and strategy for transport sector decarbonization towards carbon neutrality by 2060 needs multiple national government ministries to work together, and that the MOT could only manage short time policy development and the project goal had been revised in 2020. In the four-party meeting, the MOF and the GEF accepted the revision.
2. For component 3, during the four-party meeting on July 29, 2022, the MOF has made clear guidance on the project scope and budget for capacity building, knowledge management and knowledge dissemination. Per the guidance, for component 3, the total GEF budget should be no more than \$240,000 and study tours should not be considered

in the GEF budget. Please strictly follow the guidance of the MOF while revising Component 3.

3. In order to evaluate the cost-effectiveness of outputs of the project, the MOF and project reviewers need more detailed information on the budget. Please show the information at the end of the description of each of the outputs in the Column of 'Expected Outputs' in Table B, or provide a separate file with the budget breakdown by output. For example, for expected output 1.1, it should show '- A national roadmap for decarbonizing transport developed that integrates adequate gender and disability considerations (GEF\$ xx,xxx)'. More comments may be provided after the budget information is available to the GEF.

Agency Response

WB 8/12/22:

Comments on component 1:

It is well noted that the outcomes of component 1 look good.

Under component 1, we would like to clarify that the outputs support the expected outcomes in the following aspects: (1) PAD paragraphs 18 and 62 state that the national and provincial roadmaps will inform the 15th five-year plans of the Ministry of Transport and pilot provinces, respectively, which is the appropriate form of documenting the government's policies and actions. (2) As specified in the Results Framework, five out of the eight draft policies and technical guides would be adopted ? the eight drafts are measured as intermediate results indicators while the five that will be adopted are measured as PDO indicators. With the resources provided under GEF, eight drafts can be prepared and (at least) five of them are expected to be adopted. The eight areas cover the key sub-sectors where decarbonization policies and technical guides are most needed or there exist prominent gaps in the existing policies/guidelines.

As explained by the task team during QER, DM and in other occasions ? team has worked closely with the government counterpart to push for a government white paper or strategy document as suggested by GEF SEC, but for our MOT and provincial counterparts, those were not feasible or appropriate forms of documents to publish roadmaps for the period that goes over the 15th FYP. The outputs here reflect the outcome of extensive discussions the Agency had with the Chinese counterpart and what is realistically achievable.

In response to the detailed suggestions on what needs to be included in a national roadmap (such as numbers of vehicles, specific regulations and incentives, and actions concerning specific fuel types and energy sources), **please be assured that these will all be part of the national roadmap**. The PAD specifies that the roadmaps are to be prepared in a comprehensive manner, covering all transport subsectors, identifying

timebound actions (policies, investments, and technology development) and their costs of implementation. Please refer to the definition in the Results Framework of the PDO indicator "Number of roadmaps for decarbonizing transport that integrate adequate gender and disability considerations", which reads: "Number of roadmaps that have been fully developed and adopted by relevant departments for implementation (Ministry of Transport, Transport Departments and/or DRC under each pilot provincial government). A roadmap is considered fully developed when it (1) consists of policy measures, key investment areas, and technology adoption, as well as their implementation timeline, that are required to achieve peak emission by 2030 and eventual neutrality by 2060; (2) is supported by an adequate analysis on the emission trajectories and costs of implementation under different scenarios; (3) is sufficiently detailed for the period until 2030, allowing for adoption by the Ministry/provincial departments of Transport; (4) for the period beyond 2030 until 2060, a research report is published to guide policymaking in the future; and (5) incorporates gender and disability considerations through public consultations. The ToR of consultation activity should specify the requirement to include diverse stakeholders in consulting the roadmaps."

On the emission accounting and monitoring system, please refer to PAD para 68 provides the baseline and additionality: "The existing carbon accounting and monitoring system for transport sector in China is fragmented across sub-sectors, industries, and modes, and does not allow for systematic monitoring of progress towards meeting the country's carbon goals. The data collected by various authorities are not well integrated or widely accessible. With GEF support, a carbon accounting and monitoring system for transport sector would be supported both at the national level (MOT) and subnational level (Jiangsu Province) in a coordinated manner and will be applied in a few pilot cities. Informed by good international practices, relevant data will be disclosed and made publicly available, enabling performance benchmarking across localities and monitoring over time."

On the BAU and GEF scenarios, please refer to the analysis presented in PAD para 75, in which the Reference and Enhanced Policy scenarios are presented. The GEF is expected to contribute to bringing the curve from the Reference scenario to Enhanced Policy Scenario, advancing the peaking point from 2040 or after, to close to 2030. It is assumed that 10% of this advancement is attributed to GEF interventions, as the national framework for policies and technical standards are much better coordinated than without the project.

In carrying out these analyses, the Agency has undertaken an in-depth literature review of China's current policies, strategies, regulations, incentives and technology development. In fact, the World Bank was invited to review the referenced study by WRI (see the acknowledgement section of the English version here <https://www.wri.org/research/decarbonizing-chinas-road-transport-sector-strategies->

toward-carbon-neutrality), which focuses only on the road transport. The analysis presented in the PAD is the World Bank's original analysis carried out in partnership with CATS, which covers all transport sub-sectors and will be included in the forthcoming publication by the World Bank, "Country Climate and Development Report", which has undergone extensive internal review by the World Bank management and consultation with the client. The analysis is based on detailed data obtained from the government and various sources, using a rigorous methodology developed jointly by the World Bank and CATS, based on extensive literature review. We have provided the funding breakdown by component which is consistent with the GEF template, World Bank submissions for other projects, and other agencies' submissions.

Comments on component 2:

We acknowledge that the R&D terminology is misleading and has been revised. The project will support new policies and technical standards, deployment of the new technologies, and assessment of technical and economic performance of electric vessels, to further support private sector investments in new vessel technologies.

While it is true that there are private companies that have well developed technologies to produce hydrogen fuel cell electric vehicles and other associated applications, FCEVs including buses and trucks are still not commercially viable without substantial government subsidy and investment in infrastructure. Therefore, public sector's involvement is essential for the technology demonstration and diffusion, which provides funding, incentives (subsidies, taxes, and other non-monetary measures), standards, and regulation. Shandong is one of the early adopters of FCEV. The experience of early adopters could inform the manufactures and other consumers with insights on how the FCEV function on a day-to-day basis. The study in Shandong will cover the lessons learned from bus operators, charging infrastructure operators, bus riders, and hydrogen suppliers.

Private sector in China is investing in trucks as they are eligible for heavy government subsidies. These technologies are not yet market ready. The news article is about Qingdao International Academician Park, a state-owned enterprise, ordering 2000 trucks from Qingdao Dexian New Energy Automobile Manufacturing, a private company. Private sector is investing in the manufacturing of hydrogen trucks. However, the use of hydrogen trucks is far from being commercially viable and private logistics operators are still reluctant to purchase hydrogen trucks, despite the government subsidies. The GEF funding is used to ensure or accelerate the uptake of hydrogen truck fleet by the logistics operators, both public and private. Moreover, sustainable and adequate supply of green (carbon-free) hydrogen will still be many years away due to high cost and underdeveloped hydrogen use cases. It is not a correct understanding of the situation on the ground that hydrogen fuel cell vehicle operation is mature for market and does not need any support ? not just for China but for any other countries.

Jiangsu information was included in the submission and we understand it was not accessible due to an IT glitch that has been resolved.

This appears that GEF SEC proposes to include a new activity in the Shandong scope. We would like to note that we have worked very closely with our counterparts to define the scope of activities and it would be difficult to introduce the suggested activities at this stage, which departs from what is proposed as pilot. Furthermore, it would be difficult to apply the policy developed under the project and evaluate its effectiveness and impact within the project implementation period.

As noted above, we have provided the funding breakdown by component which is consistent with the GEF template, World Bank submissions for other projects, and other agencies' submissions.

Component 3:

The carbon goals announced in China are still at the early stage and no country has yet achieved carbon neutrality ? this is a new development concept that present significant challenges, not just for China but for all countries. While it is true that many earlier projects, including those supported by GEF, provided support for capacity-building, many officials are still new to the concept, policies, and technology advancement that are required for achieving carbon neutrality. And thus, successful implementation of decarbonization pathways would require extensive efforts for capacity-building for various levels of decision-makers, practitioners, enterprises, and general public. The Agency worked with the client extensively to identify areas where capacity building is needed, based on the prior experiences. The capacity-building activities will benefit not just the central ministry but also various localities.

While the specific details regarding workshop agenda and training materials, resource persons, venues, days, etc. will be confirmed during project implementation, it is expected that the workshops and knowledge-exchange events would be held on new policies/strategies, technical guides on emerging technologies, financial viability and business models, and lessons learned from pilot projects. A broad audience, including policymakers and practitioners in national and sub-national governments, research institutes and academia, enterprises, and civil societies would be invited to participate in these events. With regard to study tours, the comment that GEF funding does not support study tours is not consistent with our experience (we are aware of several

projects funded by the World Bank and other agencies that include study tours). We have also confirmed with the GEF PPO that study tours are eligible expenditures under GEF projects.

As noted above, we have provided the funding breakdown by component which is consistent with the GEF template, World Bank submissions for other projects, and other agencies' submissions.

WB 9/19/22:

Under Component 3, the international study tours have been removed and the total cost allocation is reduced from \$800K to \$200K. Another \$200K is added to M&E under Component 4 to engage technical experts to review project outputs and knowledge products and design capacity-building programs, which is essential to ensure high-quality outputs. During the implementation, the activities under this component will be carefully reviewed to ensure cost-effectiveness and high impacts of capacity-building activities.

While it is our understanding that budget breakdown by output is not typically required, we provide this in a separate document uploaded into the portal.

3. If this is a non-grant instrument, has a reflow calendar been presented in Annex D?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

N/A

Agency Response

Co-financing

4. Are the confirmed expected amounts, sources and types of co-financing adequately documented, with supporting evidence and a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized, and a description of any major changes from PIF, consistent with the requirements of the Co-Financing Policy and Guidelines?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

Please provide co-financing letters for the private investments of \$30 million. More comments on the co-financing of other resources may come later.

8/17/2022 MY:

Not completed at this time.

The newly provided co-financing letter signed by somebody in Shandong province does not meet GEF's requirement. Here as follows is the requirement of the GEF (source: GUIDELINES ON CO-FINANCING, Policy: FI/GN/01, Approved on June 26, 2018):

6. Supporting evidence may include:

- (a) an official project document for an approved project financed fully or in part by the entity that provides the Co-Financing;
- (b) a legal agreement or memorandum of understanding between the entity that provides the Co-Financing and the Agency, the recipient country government, or an executing partner;
- (c) agreed minutes of negotiations (such as between a multi-lateral development bank [MDB] and a government);
- (d) signed and dated letter from the entity that provides the Co-Financing; or
- (e) other written documentation, provided that it meets the criteria set out in Paragraph 7 below.

7. Supporting evidence should:

- (a) confirm the information provided by the Agency, including the name of the entity that provides the Co-Financing, the type of Co-Financing provided, the amount of Co-Financing, and the time frame over which the Co-Financing will be provided;
- (b) confirm that the Co-Financing identified supports the implementation of the GEF-financed project or program for which GEF financing is sought, and the achievement of its objective(s); and
- (c) be presented in English, where feasible, or be accompanied by an English translation of the original.

In the new co-financing letter, please pay attention to the following issues in the co-financing letter that was submitted on August 12, 2022.

1. Lack of names of entities supplying the co-financing: the letter indicated ?Other departments?. Please elaborate the names of these departments and detailed contacts.
2. If a government agency provides a letter of co-financing on behalf of a private company, the company should issue an authorization or acknowledgment letter.
3. Type of co-financing: they need to provide this (equity, loans, grants, in kind expenses, etc.);
4. Amounts: they provided this.
5. Time frame over which the co-financing will be made available: they need to provide this.

9/22/2022 MY:

Not completed at this time.

The newly provided co-financing letters signed by the three provincial government agencies do not meet the criteria of the GEF co-financing. A government agency needs to show evidence from other organization while justify any co-financing from the organization for the project. For example, the letter from Shandong shows the following: "Activity 2: Manufacturing new energy vessels; leveraging capital investment of 5.95 million dollars. Source: Shandong Shipping Corporation.". The Shandong Shipping Corporation is a private company, please attach an evidence from the private company of their willingness to co-finance the project.

10/3/2022 MY:

Not completed.

The Sources of Co-financing for the Project by name and by type in Table C of the CEO ER document do not match the co-financing letters. Please check carefully the amounts and types of the co-financing in the letters and in the Table to make them consistent. Please elaborate the private co-financing amounts in Table C accordingly.

10/14/2022 MY:

Not completed.

As discussed with Jen, the TTL of the project on October 12, 2022, please do the following:

Thank you for your continued effort.

1. The DOT letter should not include the co-financing amount of the private company, and the private company letter should show the name, position, signature and telephone number of the signatory.

2. Before resubmitting the CEO ER package, please have a fresh eye person to double check the amounts one by one in Table C against those in each of the co-financing letters.

Thank you.

10/20/2022 MY:

Yes, comments were cleared.

Agency Response

8/12/22:

We refer to the GEF's written guidance referred below:

?Agencies may report Co-Financing that is expected to be mobilized during project implementation from entities that are not known at the time of CEO Endorsement/Approval, particularly in the case of Co-Financing from the private sector or beneficiaries. In such cases, Agencies may provide supporting evidence in the form of official project documentation with requirements that such Co-Financing be mobilized at a clearly expressed minimum level, over a pre-defined time frame.? (https://www.thegef.org/sites/default/files/documents/GEF_FI_GN_01)

While being confident about the project's ability to mobilize private sector investments and aware of multiple such candidate enterprises and investors, the government counterparts have not yet been able to concretize specific names and amounts at this point. Considering this constraint and in light of the GEF guidelines, we propose to include an indicator that would monitor the private investment mobilized as a direct result of GEF funded activities, to be monitored and reported both by the NPMO and Provincial PMOs, with inputs from relevant government agencies (MOT, DOT, ports, etc.), throughout the life of the project.

WB 9/19/22

Co-financing letters have been revised and resubmitted with other documents.

WB 9/30/22

We have uploaded three new commitment letters from Dafeng Port Group under Yancheng Port, Shandong Port Group and Shandong Shipping to substantiate the co-financing from these companies that is included in the Jiangsu and Shandong DOT co-financing letters.

WB 10/5/22

Co-financing table has been revised to include Dafeng Port Group and Shandong Shipping. All co-financing letters have been reloaded into the portal. To avoid confusion, please refer only to the co-financing letters marked FINAL with upload date 10/5/22.

WB 10/18/22

We have confirmed with Shandong MOT that Shandong Shipping is an SOE majority-owned by Shandong provincial government. Therefore we have not provided a separate letter from Shandong Shipping, and have retained the letter from Shandong DOT. We have uploaded the final versions - in Chinese with English translation- of the four co-financing letters into a zip file in the portal with today's date (10/18).

GEF Resource Availability

5. Is the financing presented in Table D adequate and does the project demonstrate a cost-effective approach to meet the project objectives?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not completed yet, since the submission of co-financing documents is not completed.

8/17/2022 MY:

Not completed yet, since the submission of co-financing documents is not completed.

9/22/2022 MY:

Not completed yet, since the submission of co-financing documents is not completed.

10/3/2022 MY:

Not completed yet, since the submission of co-financing documents is not completed.

10/14/2022 MY:

Not completed yet, since the submission of co-financing documents is not completed.

10/20/2022 MY:

Yes, comments were cleared.

Agency Response

8/12/22:

Please see above response on the private sector co-financing letter.

WB 9/19/22:

Co-financing letters have been revised and resubmitted with other documents.

WB 9/30/22

We have uploaded three new commitment letters from Dafeng Port Group under Yancheng Port, Shandong Port Group and Shandong Shipping to substantiate the co-financing from these companies that is included in the Jiangsu and Shandong DOT co-financing letters.

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Co-financing table has been revised to include Dafeng Port Group and Shandong Shipping. All co-financing letters have been reloaded into the portal. To avoid confusion, please refer only to the co-financing letters marked FINAL with upload date 10/5/22.

WB 10/18/22

Please see response on co-financing letters in Box I-4 above.

Project Preparation Grant

6. Is the status and utilization of the PPG reported in Annex C in the document?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not applicable, since no PPG was requested.

Agency Response

Core indicators

**7. Are there changes/adjustments made in the core indicator targets indicated in Table E?
Do they remain realistic?**

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

There is a significant change in the targeted global environment benefits. Please elaborate the changes.

Please also indicate energy saved and new zero-carbon energy generation capacity increased due to the GEF project.

8/18/2022 MY:

Paragraphs 6-11 of the PAD (August 12, 2022 version) showed the existing issues of China's transport sector, but not root causes and barriers of the issues. The root causes may include (1) subsidies to fossil fuel consumption. An IEA report in 2019 indicated the following: "Chinese fossil-fuel subsidies amounted to \$30 billion" (2) Carbon tax is not implemented. The barriers may include government policy failures, and social impact consideration. The government has realized these issues, but it cannot resolve them overnight. Change of energy policy may cause social instability. That is why the government of China wants the WB/GEF to undertake new policy development, roadmap development and test these policies in a province or a city.

One of the German comments is related to carbon tax. Germany wants China to address the root issues. Please include these root causes and barriers in the relative section in the PAD and the CEO ER document for completeness, considering that this is also raised by one comment of the German Council Member.

9/22/2022 MY:

Yes, comments were address and issues were cleared.

Agency Response

8/12/22:

As noted by the reviewer the projected direct emissions in the latest submission are now lower while the indirect emissions are higher, compared to what was estimated at the Council approval stage. Since the submission, however, we received more accurate and recent data from the client, namely Shandong Ports, and have been able to update the direct emission calculation results. The direct emissions, considering the dynamic baseline, have now been increased to 11.7 million. The indirect emissions, which were provided in rough estimate before completing detailed scenario analysis at the Council approval stage, have now been substantiated through the World Bank's analytical work in collaboration with the China Academy of Transportation Science. The scenario analysis provided detailed results on the transport emission trajectory under the BAU (or Reference Case), Alternative Scenario (with enhanced policies) and GEF Scenario (Accelerated Decarbonization), providing the basis for calculating the indirect emissions.

The calculation of the emission reduction is detailed in the project document. Energy saving and power generation from non-fossil fuel sources have been added to the project document.

WB 9/19/22:

Pricing issues, including on fossil fuels, are identified as one of the root causes, whereby the cost of private, fossil fuel- based, road transport does not reflect all externalities including carbon emission, congestion and other local pollution. This is stated in paragraph 9 in the statement that "This is due to insufficient physical and operational integration across various modes, low cost of motor-vehicle use which does not reflect its total social and environmental costs, the lack of coordinated mobility services across jurisdictions, insufficient inter-jurisdictional coordination for investments in transport decarbonization, and challenges to electrify longer-distance travels" (underline added for emphasis).

Carbon tax is one of various ways of addressing the above pricing issues, and it is not clear when and how the GoC will adopt carbon tax. As indicated in the earlier response, the roadmap under the project will look at the decarbonization policies comprehensively, including pricing measures. This is stated in para 22 ("Demand side

measures and incentive mechanisms, such as application of carbon tax and carbon credits for transport services, will be incorporated in the roadmap?).

Part II ? Project Justification

1. Is there a sufficient elaboration on how the global environmental/adaptation problems, including the root causes and barriers, are going to be addressed?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

Please elaborate the root causes and barriers towards China's net zero-carbon transport the pathway by 2060.

8/18/2022 MY:

Paragraphs 6-11 of the PAD (August 12, 2022 version) showed the existing issues of China's transport sector, but not root causes and barriers of the issues. The root causes may include (1) subsidies to fossil fuel consumption. An IEA report in 2019 indicated the following: "Chinese fossil-fuel subsidies amounted to \$30 billion" (2) Carbon tax is not implemented. The barriers may include government policy failures, and social impact consideration. The government has realized these issues, but it cannot resolve them overnight. Change of energy policy may cause social instability. That is why the government of China wants the WB/GEF to undertake new policy development, roadmap development and test these policies in a province or a city.

One of the German comments is related to carbon tax. Germany wants China to address the root issues. Please include these root causes and barriers in the relative section in the PAD and the CEO ER document for completeness, considering that this is also raised by one comment of the German Council Member.

9/22/2022 MY:

Yes, comments were address and issues were cleared.

Agency Response

8/12/22:

The context section of the PAD (paragraphs 6 through 11) identifies the root causes and barriers, which provide rationale for the interventions proposed under the project.

WB 9/19/22:

Pricing issues, including on fossil fuels, are identified as one of the root causes, whereby the cost of private, fossil fuel- based, road transport does not reflect all externalities including carbon emission, congestion and other local pollution. This is stated in paragraph 9 in the statement that "This is due to insufficient physical and operational integration across various modes, low cost of motor-vehicle use which does not reflect its total social and environmental costs, the lack of coordinated mobility services across jurisdictions, insufficient inter-jurisdictional coordination for investments in transport decarbonization, and challenges to electrify longer-distance travels" (underline added for emphasis).

Carbon tax is one of various ways of addressing the above pricing issues, and it is not clear when and how the GoC will adopt carbon tax. As indicated in the earlier response, the roadmap under the project will look at the decarbonization policies comprehensively, including pricing measures. This is stated in para 22 ("Demand side measures and incentive mechanisms, such as application of carbon tax and carbon credits for transport services, will be incorporated in the roadmap").

2. Is there an elaboration on how the baseline scenario or any associated baseline projects were derived?

Secretariat Comment at CEO Endorsement Request
6/22/2022 MY:

Not at this time.

The major outcomes of the project, as described in Component 1, should be to establish China's national roadmap to decarbonize transport towards carbon neutrality and to develop/enhance a policy framework for innovation and scale-up of clean energy in the transport sector of China. In the project package, there is no baseline scenario, nor presentation on associated baseline projects. Please revise the project package.

The outcomes from Component 2 Pilot Implementation towards Transport Carbon Peaking and Neutrality) are important, but they should be based on the main outcomes of Component 1 of the project. After the baseline issue in Component 1 is addressed,

more comments on the baseline and the associated baseline projects for Component 2 will further be provided.

8/18/2022 MY:

Now, the baseline scenario and project alternative scenario for the estimation of indirect emission reduction shown in the responses of the next box and pages 56-57 look good.

Please continue working on the three provinces to justify the baseline and project alternative scenarios and justify and show direct GHG emission reductions.

9/22/2022 MY:

Yes, comments were address and issues were cleared.

Agency Response

8/12/22:

The scenario analysis and description has been further enhanced in the PAD, which is explained below in response to the next comment.

WB 9/19/22:

The alternative scenarios for provincial components are enhanced as follows:

(1) The national level carbon emission trajectory will be the aggregate of provincial level emissions. In other words, the alternative scenario presented under Component 1 is inclusive of provincial level roadmaps under Component 2. This is now clearly stated in the PAD.

The PAD is revised to clearly state the alternative and GEF scenarios concerning the pilot projects in selected provinces (paras 65, 67, and 69).

3. Is the proposed alternative scenario as described in PIF/PFD sound and adequate? Is there sufficient clarity on the expected outcomes and components of the project and a description on the project is aiming to achieve them?

Secretariat Comment at PIF/Work Program Inclusion

6/22/2022 MY and FB:

Not at this time.

The alternative scenario for Component 1 is missing. Please provide it.

8/18/2022 MY:

Not competed yet.

Please see the comments in the previous Box.

9/22/2022 MY:

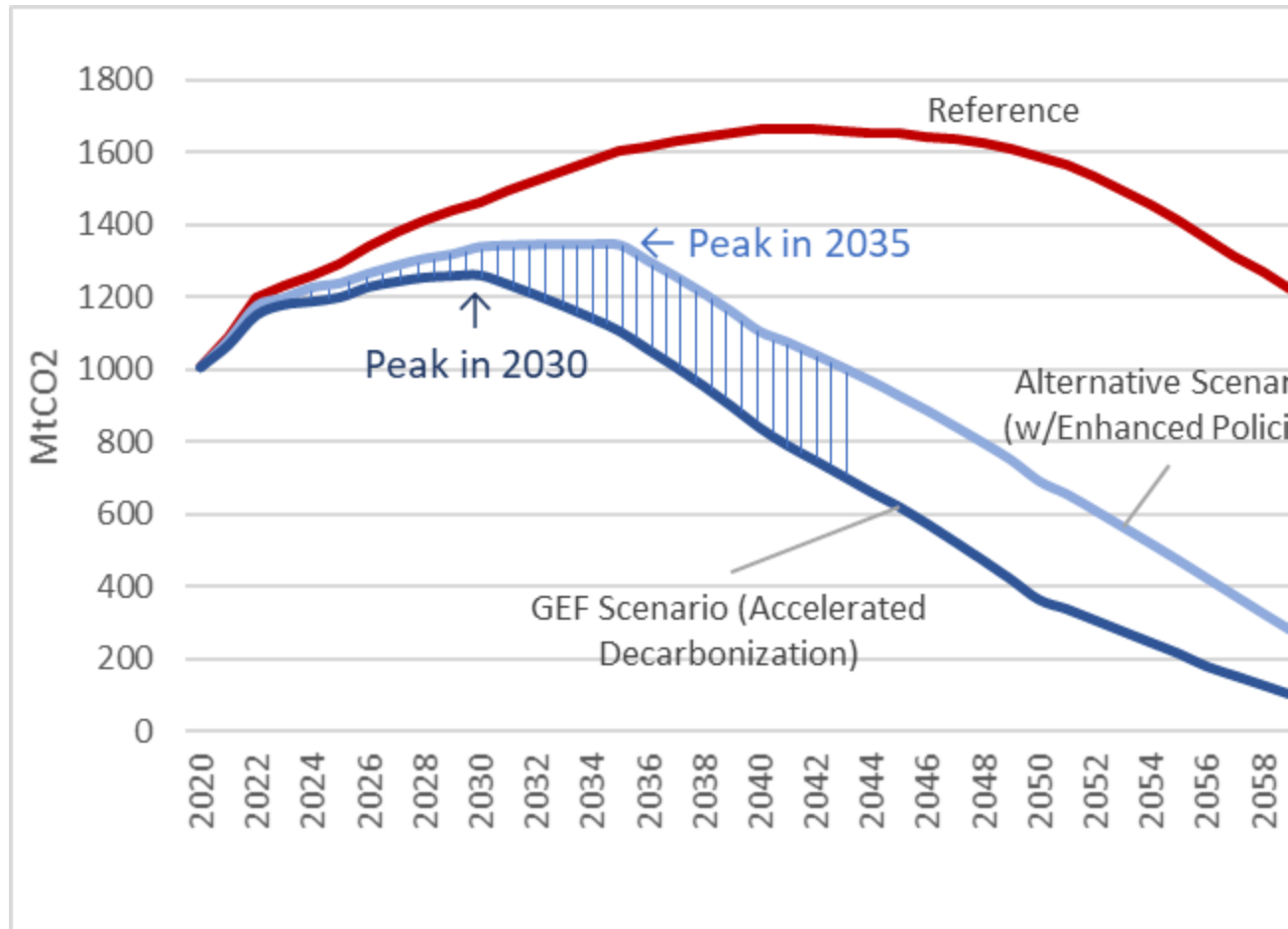
Yes, comments were address and issues were cleared.

Agency Response

8/12/22:

The scenario analysis has been further enhanced and now includes one additional scenario to the two existing ones: (1) Business-as-usual or Reference scenario whereby no major efforts are made towards China's carbon goal and transport sector carbon emissions are expected to continue rising until 2040 and decrease to the current level by 2060, (2) Enhanced Policies Scenario (EPS), without GEF support, whereby it is reasonably assumed that China would make various efforts and enhance the existing policies to advance the peaking to 2035 and bring the emissions to one fifth of the current level by 2060, and (3) the newly added 'Accelerating Decarbonization' Scenario (ADS), to which GEF would contribute, that can further advance the peaking to 2030 and bring the emissions to below one tenth of the current level by 2060.

As shown in the graph below, the GEF support would contribute to accelerating the policy development towards carbon neutrality, and as a result, bring about additional emission reduction between EPS and ADS (of which the 20-year period from 2023 to 2043 is shaded). The cumulative emission reduction from EPS to ADS would be about 185 Mt during the first 5 years, and about 3,116 Mt over 20 years. Only a small portion of this would be attributed to GEF in revising the indirect emission reduction.



WB 9/19/22:

Please refer to response in previous box.

4. Is there further elaboration on how the project is aligned with focal area/impact program strategies?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY and FB:

Not at this time.

It seems that in the submitted CEO ER package, there is no incremental reasoning.

Please firstly address the baseline issue, then elaborate incremental reasoning, the GEF contribution from the baseline, and leverage of co-financing. The elaboration of the current and evolving baseline will help to develop the incremental reasoning narrative and justification.

8/18/2022 MY:

The project is aligned with the focal area strategy, however, please see the suggestion in Box 1.

9/22/2022 MY:

Yes, comments were address and issues were cleared.

Agency Response

8/12/22:

As explained above, the baseline and alternative scenario for Component 1 has been enhanced. The PAD is revised to provide the incremental reasoning, specifically the GEF contribution to accelerating the decarbonization process that would result in significant cumulative emission reduction and meeting the carbon peaking and neutrality targets set by the Government. We seek to receive further guidance on how we can improve the reasoning further.

WB 9/19/22:

Please see the response to Part I, question 1 above.

5. Is the incremental reasoning, contribution from the baseline, and co-financing clearly elaborated?

Secretariat Comment at CEO Endorsement Request

/22/2022 MY:

Not at this time.

It seems that in the submitted CEO ER package, there is no incremental reasoning.

Please firstly address the baseline issue, then elaborate incremental reasoning, the GEF contribution from the baseline, and leverage of co-financing.

8/18/2022 MY:

Please see comments in Box 3 of Part II.

9/22/2022 MY:

Yes, comments were address and issues were cleared.

Agency Response

8/12/22:

Please see the above responses on how this issue has been addressed. We seek to receive further guidance on how we can improve the reasoning further.

WB 9/19/22:

Please see the responses on baseline and alternative scenario provided above.

6. Is there further and better elaboration on the project's expected contribution to global environmental benefits or adaptation benefits?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

No further and better elaboration on the project's expected contribution to global environmental benefits is found. The project lacks the definition of the baseline in Component 1, which is fundamental to further define the project's major expected contribution in terms of GHG emission reductions.

8/18/2022 MY:

Please see the comments in the previous box.

9/22/2022 MY:

Yes, comments were address and issues were cleared.

Agency Response

8/12/22:

Please see the above responses on how this issue has been addressed. We seek to receive further guidance on how we can improve the reasoning further.

WB 9/19/22:

Please see the responses on baseline and alternative scenario provided above.

7. Is there further and better elaboration to show that the project is innovative and sustainable including the potential for scaling up?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

It seems that there is no further and better elaboration to show that the project is innovative and sustainable including the potential for scaling up. On page 20 of the PAD, it reads "45. Innovations. First, the Project is the first effort to systematically develop a roadmap towards transport carbon peaking and eventual neutrality goal set by the GoC." This statement lacks substantiation. Many efforts have been made in this area. Here as follows are a couple of them:

1. An Energy Sector Roadmap to Carbon Neutrality in China (including the transport sector published by the IEA) <https://iea.blob.core.windows.net/assets/6689062e-43fc-40c8-9659-01cf96150318/AnenergysectorroadmaptocarbonneutralityinChina.pdf>

2. TOWARD "NET ZERO" EMISSIONS IN THE ROAD TRANSPORT SECTOR IN CHINA" published by the WRI <https://wri.org.cn/sites/default/files/2021-12/toward-net-zero-emissions-road-transport-sector-china-CN.pdf>

Please undertake a necessary literature review to strengthen the statement on innovation.

On sustainability and scaling-up issues, it is important to further elaborate on the continued operation or use and scaling up of the results and or outcomes of the project when the project implementation is over. Please elaborate who will use the newly developed net zero carbon transport policy as the mainstream policy and regulation in China towards 2060, and how this policy will be further scaled-up beyond the three selected provinces. Please revise paragraph 57 in the PAD in light of these considerations.

8/19/2022 MY:

Not completed yet.

Comments on innovation are cleared.

Regarding Sustainability:

Sustainability at the GEF means that after the implementation period is over, the GEF project results will continue functioning. For example, the project aimed at publishing studies as inputs to the national strategy for transport sector decarbonization towards carbon neutrality by 2060, and a carbon emission accounting and monitoring system for transport sector. Please elaborate how these outputs will be continually used by the Chinese people, and who will pay for the operations or implementation of strategy and carbon emission accounting and monitoring system.

9/22/2022 MY:

Yes, comments were address and issues were cleared.

Agency Response

8/12/22:

IEA and WRI are not part of government. The proposed project supports the government's policymaking authority to prepare a detailed and comprehensive roadmap, which includes all subsectors, in close coordination with sub-national governments.

The background assessment of the project providing first such effort to systematically develop a roadmap is described in various appropriate places in the PAD ? including para 7 on context, paras 59 through 62 on technical assessment. Repeating these points in this paragraph which states why this is innovative would make the document repetitive and excessively long.

The project beneficiary section (paragraphs 32 through 36 of PAD) describes who would use and benefit from the newly developed policies. In light of this, please clarify which aspects of paragraph 57 of PAD should be revised.

Regarding ensuring continued operation or use/scaling up of the results and/or outcomes of the project, the rationale for developing the roadmap and policy framework is to ensure institutionalization of the desired changes ? through policies, decision-making mechanism, resource allocation, and technical standards/guidelines. This is elaborated in para 57, 61-13 of PAD.

WB 9/19/22:

On sustainability, this is what the project aims to: by fully institutionalizing policies and roadmaps in the relevant government plans that will be implemented beyond the project period, namely in the 15th Five-Year Plan covering the period of 2026-2030. This is now stated in para 57.

Project Map and Coordinates

Is there an accurate and confirmed geo-referenced information where the project intervention will take place?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not completed yet.

The map is attached on page 14 of the CEO ER document. Please also attach it to Annex D.

8/19/2022 MY:

Yes. Comment was cleared.

Agency Response

8/12/22:

The project map has already been provided in the submission in section 1b and was pasted again in section D.

Child Project

If this is a child project, is there an adequate reflection of how it contributes to the overall program impact?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

N/A

Agency Response

Stakeholders

**Does the project include detailed report on stakeholders engaged during the design phase?
Is there an adequate stakeholder engagement plan or equivalent documentation for the implementation phase, with information on Stakeholders who will be engaged, the means of engagement, and dissemination of information?**

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time. Please revise the CEO ER package and rearrange the section of "2. Stakeholder" on pages 14-17 in the CEO ER document with the following format:

1. Put the names of project stakeholders including the private investors to match the outputs of the project in Table B and in the description of project components, please indicate which organizations or project stakeholders including the private investors will execute the sub-components of capital investments for technology demonstrations.
2. Draw a chart to show the coordination relationship of all these stakeholders.
3. Elaborate whether this project will benefit or impact any Indigenous or minority Peoples and Local Communities. If so, please show evidence that they have been consulted with the project impacts. Please indicate which stakeholders will be negatively affected by the project on ground and how they have been consulted.
4. Identify the future roles of stakeholders and include information about it.
5. Demonstrate how the project keeps engaging stakeholders through adequate means.
6. Finally, the Ministry of Finance (MOF) of China is the driver and owner of the project. It is the most important stakeholder of the project. It seems that there is no information on the engagement of the MOF. Please elaborate how the MOF has been engaged and how the MOF will be further engaged in the project.

8/19/2022 MY:

Not completed yet.

1. In the stakeholder engagement chart, please add the MOF which is the project owner and driver. The project should comply with the policy requirement of the MOF in terms of budget and outputs. The MOF has clearly provided the guidance on this issue in the four-party meeting on July 29, 2022. For example, the MOF indicated that the total budget for component 3 knowledge management, learning, and capacity building should be no more than \$240,000, and study tours should not be in the project. Such guidance will make this project compatible with other MOF financed projects in China.
2. Please add the names of the promising private companies in the chart.
3. Please put the revised chart in the PAD and the CEO ER document.

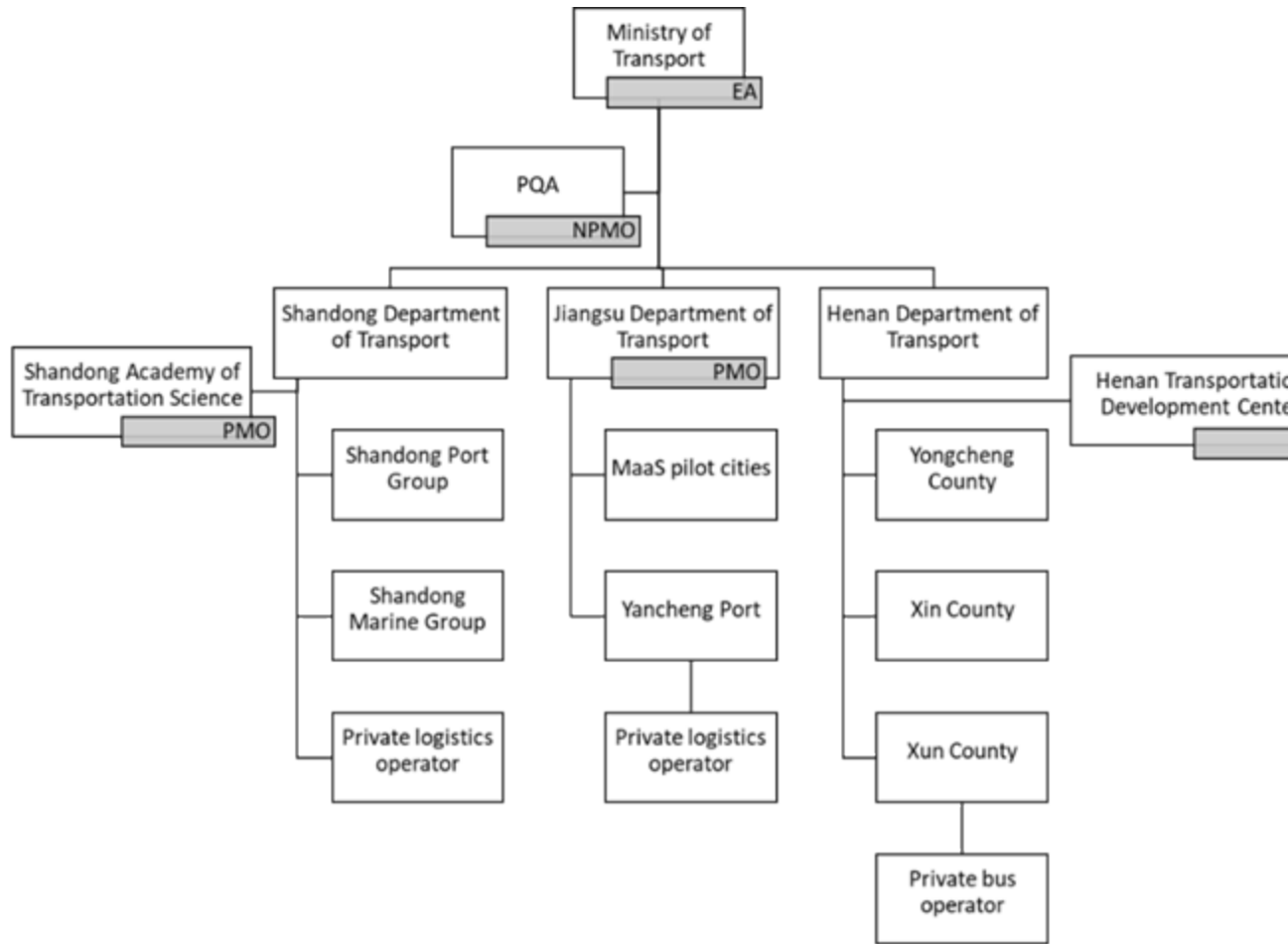
9/22/2022 MY:

Yes, comments were address and issues were cleared.

Agency Response

8/12/22:

1. The PMOs under the provincial DOTs are responsible for the implementation of all grant funded activities, while the capital investments for technology demonstration will come from SOEs and private sector. This information is included in the co-financing table uploaded as a separate document in the portal.
2. We can add a chart showing the implementation arrangements among the DOTs and investors. Project stakeholders are more extensive (as indicated in the SEP), including relevant decision-making authorities, industry associations, urban and rural residents, etc. The chart will be uploaded in the revised submission.



3. Covered in ESMF

4 & 5. Covered in SEP.

6. As the party to negotiate the grant and sign the agreement, MOF has been consulted at intervals throughout project preparation. MOF will confirm its agreement with project design during negotiations. They are the important stakeholder but engagement with them is legally required and consistent across all projects to be negotiated and signed between China and the Agency. MOF is not at risk of not being consulted properly.

WB 9/19/22:

We have added MOF as the project sponsor and this chart is included in the PAD and CEO ER document. We would like to clarify that this is an implementation arrangement chart instead of a stakeholder engagement chart. Project stakeholders are more extensive (as indicated in the SEP), including relevant decision-making authorities, industry associations, urban and rural residents, etc. We are in the process of collecting the

names of the prospective private companies and will add them in the footnote to the chart prior to WB Board approval.

Gender Equality and Women's Empowerment

Has the gender analysis been completed? Did the gender analysis identify any gender differences, gaps or opportunities linked to project/program objectives and activities? If so, does the project/program include gender-responsive activities, gender-sensitive indicators and expected results?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

The gender analysis shown in ANNEX 3: Gender Analysis and Action Plan looks good in general, but the analysis needs further linked to the project. For example, in the table on page 55 of the PAD, under the caption of " Project interventions", it reads: "Developing policies and strategies for decarbonizing transport that incorporate differentiated pattern and needs of both genders". Please elaborate the existing Chinese policies and strategies for decarbonizing transport, which do not incorporate differentiated pattern and needs of both genders. Then, please further articulate how the project will incorporate differentiated pattern and needs of both genders via the new policy and strategies.

8/19/2022 MY:

Yes, comments are cleared.

Agency Response

8/12/22:

There are a few reasons why the gender consideration is critical in decarbonization policymaking. Women and men have different access to vehicles and have different mobility needs. Policies to promote electrification in motorization, to promote public transport and non-motorized transport, would have varied impacts on different users, on the basis of their genders, income levels, disabilities, and other factors. Carbon-neutral transport system would provide very different mobility options than the current carbon-intensive system, and it is therefore critical to look at how the new policies towards carbon neutrality might disproportionately affect different users (by gender, disability, and other criteria) and make sure that new policies do not negatively affect certain groups. The starting point is inclusion of women in policy consultation and collect gender-

disaggregate data, which is lacking in current practices. Regarding how this would be monitored, please refer to the PDO indicator on the roadmap, its definition and methodology (see Results Framework).

Private Sector Engagement

If there is a private sector engagement, is there an elaboration of its role as a financier and/or as a stakeholder?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY and FB:

Not at this time.

It seems that in the PAD and in the CEP ER document, there is no description or indication on the private sector as a major player or an investor in the project. Please describe how the private sector has and will continue to be engaged in the development and implementation of this project, including the identified private investors, and confirmed amounts of private capital investments in China's net zero-carbon pathway with this GEF project.

8/19/2022 MY:

Not completed yet.

Please see the comments in Box 4 Part I of this review sheet, which is related to co-financing.

9/22/2022 MY:

Not completed yet.

Please see the comments in Box 4 Part I of this review sheet, which is related to co-financing.

10/3/2022 MY:

Not completed yet.

Please see the comments in Box 4 Part I of this review sheet, which is related to co-financing.

10/14/2022 MY:

Not completed yet.

Please see the comments in Box 4 Part I of this review sheet, which is related to co-financing.

10/20/2022 MY:

Yes, comments were cleared.

Agency Response

8/12/22:

The PAD project description is limited to the scope of grant funding, yet it recognizes the role of the grant funding in catalyzing private sector investments (see paragraphs 42, 43, 61, 62, and 64). The co-financing table, uploaded as a separate document in the portal, provides detailed description of the private sector financing, their scope, role, and linkage with the GEF grant funding. Please refer to section ?C. Source of confirmed Co-financing for the project by source and by name (\$)?.

As stated above, while being confident about the project's ability to mobilize private sector investments and aware of multiple such candidate enterprises and investors, the government counterparts have not yet been able to concretize specific names and amounts at this point. We therefore propose to include an indicator that would monitor the private investment mobilized as a direct result of GEF funded activities, to be monitored and reported both by the NPMO and Provincial PMOs, with inputs from relevant government agencies (MOT, DOT, ports, etc.).

We seek further clarification on the specific additional elements of private sector involvement that are required in the documentation.

WB 9/19/22:

Co-financing letters have been revised and resubmitted with other documents.

WB 9/30/22

We have uploaded three new commitment letters from Dafeng Port Group under Yancheng Port, Shandong Port Group and Shandong Shipping to substantiate the co-financing from these companies that is included in the Jiangsu and Shandong DOT co-financing letters.

WB 10/5/22

Co-financing table has been revised to include Dafeng Port Group and Shandong Shipping. All co-financing letters have been reloaded into the portal. To avoid confusion, please refer only to the co-financing letters marked FINAL with upload date 10/5/22.

WB 10/18/22

Please see response on co-financing letters in Box I-4 above.

Risks to Achieving Project Objectives

Has the project elaborated on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved? Were there proposed measures that address these risks at the time of project implementation?

Secretariat Comment at CEO Endorsement Request
6/22/2022 MY:

Not at this time.

1. In Annex 6 of the PAD, please consider enhancing the analysis on Pandemic Risks and Opportunities to Achieving Project Objectives

1.1 General: Projects are required to identify and establish likely impacts and risks from COVID-19, and how they will be dealt with in the context of delivering global environment benefits and climate adaptation and resilience benefits;

1.2 Risk analysis: Please consider any risks and measures to deal with the risks that are caused by COVID-19 and post-COVID-19. These risks include (1) availability of Technical Expertise and Capacity and Changes in Timelines in the selected provinces; and (2) any expected financing from the government and co-financing from all stakeholders including the private sector. Please describe further how risks from COVID-19 have been analyzed and mitigation strategies incorporated into the implementation of this project. .

1.3 Opportunity analysis: Describe further how the project has identified potential opportunities to mitigate impacts (if any) caused by COVID-19 to deliver GEBs, and contribute toward green recovery and building back better.

2. Climate Risk Screening

Paragraph 100 in the PAD on climate risk analysis is not sufficient for this project. Please enhance the paragraph to ensure that climate risks to this GEF project are fully identified, listed and described. This can include:

2.1. Outlining the key aspects of the climate change projections/scenarios at the project locations, which are relevant for the type of intervention being financed (e.g. changes in temperatures, rainfalls, increased flooding, sea level rise, saltwater acquirer contamination, increased soil erosion, etc.).

2.1 including time horizon if feasible/data available (e.g. up to 2060).

2.3 looking at list of examples from STAP guidance.

2.4 Listing key potential hazards for the project that are related to the aspects of the climate scenarios listed above. This means elaborating a narrative that describes how the climate scenarios indicated above are likely to affect the project, during 2023-2060.

3. Risks of achieving the target of net zero carbon emission in the transport sector by 2060

In the PAD, the WB listed and addressed the following risks:

Institutional Capacity for Implementation and Sustainability risk;

Fiduciary risk;

Risks associated with Technical Design;

Political and Governance, Macroeconomic, and Sector Strategies and Policies risk; and

Climate Change risk

Please also identify and justify the following risk: China may miss its target of GHG emission peak in the transport sector by 2045 or 2040.

8/19/2022 MY:

Yes, comments are cleared.

Agency Response

8/12/22:

1. Annex 6 has been further elaborated to follow the structure suggested and additional risk factors associated with COVID-19 have been added.

2. The relevant paragraphs in the PAD have been revised and enhanced to include key aspects of climate change projections at project locations, potential hazards for the project, and elaborated the risk assessment.

3. The Agency's operational policies and procedures stipulate that the risk assessment be done for factors that would affect the likelihood of achieving the objective of the project. China missing its target of GHG emission peak is not a factor that affects the

achievement of the project objective, but an outcome event that would occur when various risk factors materialize. The project aims and is designed avoid such an outcome, by supporting roadmap development, adoption of policies, and capacity-building. Moreover, this eventuality of not meeting the carbon peaking target goes beyond the project implementation period (expected during 2023-2028), and therefore it would be not possible for the client and the Agency to track the occurrences of this event during the project implementation.

Coordination

Is the institutional arrangement for project implementation fully described? Is there an elaboration on possible coordination with relevant GEF-financed projects and other bilateral/multilateral initiatives in the project area?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

It seems that there is no elaboration on coordination with relevant GEF financed projects and other bilateral/multilateral initiatives in the project area. Please address this issue in the CEO ER package.

8/19/2022 MY:

Yes, comments are cleared.

Agency Response

8/12/22:

PAD para 17 discusses how the proposed project would be coordinated with two other GEF7 projects (energy and cities): "In achieving the above higher-level objectives, the Project would be closely coordinated with other World Bank GEF-7 projects in China, namely "Promoting China's Energy Revolution Towards Carbon Neutrality" in energy sector and "China Sustainable Cities " Supporting Green and Low-Carbon Urban Development" in urban development sector. The energy sector project supports technology improvement in the energy sector that would enable higher share of renewable energy and breakthrough in new frontiers such as production of clean hydrogen. Decarbonizing transport, one of the most significant energy consuming

sectors, will be closely coordinated with such improvements and innovations in energy sector. The urban development sector project would include support for exploring net zero emissions in selected districts and communities, which would need to involve solutions for decarbonizing transport. Lessons from pilots under both projects will be shared to inform relevant policies?

PAD para 47 states that the project will collaborate with bilateral agencies including GIZ and Norway, as well as other key stakeholders of the sector.

PAD para 48 provides how the prior GEF project experiences provide lessons for the project: ?Experiences from previous GEF-financed projects. This project will build upon the results of the previous GEF projects, including ?City Cluster Eco-Transport Project (P121263)? under GEF-4, ?Large City Congestion and Carbon Reduction Project (P127036)? under GEF-5, and ?Efficient and Green Freight Transport Project (P159883)? under GEF-6. Deliverables under GEF-4 project included planning and policy strategies to improve transport efficiency and reduce energy consumption and GHG emissions on ecological comprehensive transport planning of city clusters. The GEF-5 project provided a strategy to improve public transport services both in terms of extent and quality, and established a national policy framework, strategic plans and guidelines for alleviating traffic congestion and reducing GHG emissions in China?s big cities through the establishment of traffic demand management measures. The ongoing GEF-6 project will provide guidance on how to construct an efficient green freight transport system in China. This new proposed GEF project will incorporate the successful outcomes of precedent GEF projects, with emphasis on establishing a comprehensive policy framework for decarbonizing transport and identifying strategies that suits different regions in China?.

Consistency with National Priorities

Has the project described the alignment of the project with identified national strategies and plans or reports and assessments under the relevant conventions?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

It seems that there is no description on consistency of the project with the national priorities of China. Please elaborate how this project's TAs on decarbonization in

China's transport sector will be consistent with China's commitment to zero-carbon transport pathway towards 2060 which is well known as the national priority in climate change.

8/19/2022 MY:

Yes, comments are cleared.

Agency Response

8/12/22:

Para 2 of the PAD refers to NDC, the 1+N policy framework and 14th FYP on Development of Modern and Comprehensive Transportation System issued by GoC in January 2022, underpinned by green transformation principle with focus on green modes, clean transportation technologies, and lower energy and carbon intensity. Please clarify what more is needed to demonstrate alignment.

Knowledge Management

Is the proposed Knowledge Management Approach for the project adequately elaborated with a timeline and a set of deliverables?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time. In the Annex 5 of the PAD, please add the following information:

1. Providing an overview of lessons and best practice from the existing similar projects in China that are related to the project in terms of knowledge management;
2. Developing a time-linked plan to further learn from relevant on-going relevant projects, programs, initiatives & evaluations;
3. Describing processes to capture, assess and document information, lessons, best practice & expertise generated during project implementation;
4. Showing how to develop learning & collaboration among different stakeholders that have been selected for technology demonstrations.
5. Considering a long term plan for strategic communications and knowledge sharing all over the country.

8/19/2022 MY:

Yes, comments are cleared.

Agency Response

8/12/22:

Annex 5 para 1 and 2 included lessons and best practices from international and previous GEF-financed projects related to transport decarbonization. The project will continue to use TRANSFORM, a collaborative knowledge management platform operated by MOT and the World Bank since 2014. It is a long-term platform for transport knowledge sharing in China as well as globally. Strategic communications and knowledge sharing in the longer-term beyond the scope of this project are being supported by MOT and the World Bank.

A time-linked plan will need to be developed as part of the project implementation by the NPMO and updated annually in accordance with the progress of GEF project activities and government plans.

The process to capture, generate and disseminate knowledge is described in para 4. Knowledge dissemination among different stakeholders for technology demonstrations is added to para 5.

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 CEO Endorsement Request

6/22/2022 MY:

Not at this time.

It seems that Section "5. Environmental and Social Safeguard (ESS) Risks" in the CEO ER document on pages 21-24 focuses on what the project is going to do, but not on environmental and social risks, impacts and management measures. Please revise the section with the consideration of the following elements:

1. Elaborating possible long term negative impact of China's net zero-carbon policy and strategy on the Chinese society and the global environment. For example, phasing out internal combustion engine vehicles in a large scale and at a rapid speed may cause social problem for the Chinese consumers who are not ready to switch to e-mobility or hydrogen-mobility. For another example, scaling up e-vehicles needs a huge amount of

rare metals and other resources. Mining for such resources as the beginning of the production chain of e-vehicles may cause a significant damage to China's or even world's environment. There are many studies on this issue available in the literature of e-vehicles or hydrogen vehicles.

2. Articulating policy and regulation measures to deal with wastes that are related to China's net zero carbon transport pathway. For example, challenges and measures to deal with these challenges in e-vehicle battery recycle, reuse or disposal from 2023 to 2060 need to be addressed in the project document.

3. Please confirm that the project document includes information on any measures to address ESS related possible risks and negative impacts during project implementation and more importantly after project implementation. These measures should be written in white paper or regulation document for the Chinese government.

8/19/2022 MY:

Yes, comments are cleared.

Agency Response

8/12/22:

The project document includes information on any measures to address ESS related possible risks and negative impacts of the proposed operation. The project has been prepared using both GEF's SD/PL/03 "Policy on Agency Minimum Standards on Environmental and Social Safeguards" and the World Bank's Environmental and Social Framework (ESF) (which sets more contemporary and specific requirements than SD/PL/03) as compliance benchmarks. Compliance/exceedance of SD/PL/03 and ESF requirements is supported through the preparation of detailed instruments which provide comprehensive measures for the management of potential E&S risks.

China is committed to transitioning away from reliance on fossil fuels across the economy including transport which will involve a number of upstream and downstream impacts and challenges. Some of these can be managed effectively through instruments such as SD/PL/03 and ESF, and for these, clear assessment and management systems need to be defined; as they have been for this operation. Although the issues raised are beyond ESF (and SD/PL/03) requirements, the following responses are provided to help provide context for project consideration.

Impacts associated with China's net zero-carbon policy and strategy on Chinese society of phasing out internal combustion engine vehicles in a large scale and at a rapid speed would be managed by long standing and established systems in China including detailed Social Stability Risk Assessments (SSRAs) and Feasibility Status Reports (FSRs) which

apply to major policy and investment decisions. The Guidelines for both instruments are being updated by the National Development and Reform Commission (NDRC) to deepen the assessment of social issues in investment projects. A large part of this work is to address new challenges created by the agreed benefits of energy transition which will extend to matters such as the balance between E&S benefits and impacts of transitioning to renewable energy access to different minerals and resources.

Sector review and field observations from previous Bank projects (e.g. P163679) concluded that the major domestic battery manufacturers and recycling facilities in China have been targeting at international standards (e.g., ISO standards, EU directives) to maintain good EHS performance during operation for long-term sustainable development, and Chinese government has promulgated and enforced regulations on the implementation of Extended Producer Responsibility (EPR) and responsible lifecycle management for battery products since 2016, pushing large-scale battery manufacturers to establish their own recycling facilities and forcing the polluting recyclers to close.

Projects such as the proposed operation will provide the ability to apply global good practices and standards in the context of China to help refine implementation of the range of systems in China for the management of the sorts of challenges identified.

Monitoring and Evaluation

Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

In the Monitoring & Evaluation Plan on page 32 of the CEO ER document, please consider putting a time dimension for monitoring project results and targets.

8/19/2022 MY:

Yes, comments are cleared.

Agency Response

8/12/22:

The Results Framework and M&E Plan already indicate the frequency for monitoring project results, such as annually, at mid-term, or at the end of the project.

Benefits

Are the socioeconomic benefits at the national and local levels sufficiently described resulting from the project? Is there an elaboration on how these benefits translate in supporting the achievement of GEBs or adaptation benefits?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

In the CEO ER package, please write a section to describe any social and economic benefits of the project, and elaborate how these benefits will translate in supporting the achievement of global environment benefits.

8/19/2022 MY:

Not completed.

Please add one more paragraph after 36 on how these local social and economic benefits will contribute to global environment benefits.

9/22/2022 MY:

Yes, issues were cleared.

Agency Response

8/12/22:

Paragraphs 32 through 36 of PAD provides the project beneficiaries identified, benefits to be accrued to them, and how these benefits support achieving and sustaining GEB. Please specify what additional information is needed.

WB 9/19/22:

This is described in para 35, which reads ?35. The Project is expected to generate broad social and economic benefits for transport users and public at large in form of more efficient, cleaner, and safer transport. First, it is expected to bring about reduction of 11.7 million tons in direct CO2 emission and 31 million tons in indirect emission over the next 20 years (see Section IV.A for details of the estimation). Second, decarbonization technologies and measures, including integrated mobility platforms

such as MaaS, would improve energy efficiency and provide smart and convenient mobility solutions that better respond to complex user demand. Third, most of the decarbonization measures also reduces harmful local emissions and noise from transport sources, contributing to the air and noise pollution reduction and generating co-benefits. Fourth, the roadmap and policy framework around "avoid" and "shift" measures would help meet the mobility demand and provide connectivity, while reducing congestion and other negative externalities, bringing in economic benefits in form of productivity increase."

Annexes

Are all the required annexes attached and adequately responded to?

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

Please attach necessary annexes to the CEO ER document.

8/19/2022 MY:

Yes, comments are cleared.

Agency Response

8/12/22:

The IT issue that resulted in certain information that was part of the submission not appearing has been raised to IT. and we understand this has been resolved.

Project Results Framework

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

The Project Results Framework is missing in the CEO ER document.

8/19/2022 MY:

Yes, comments are cleared.

Agency Response

8/12/22:

The project results framework was included in Annex A of the submission.

GEF Secretariat comments

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

The following comments of the GEF at the PIF approval stage in April 2021 were not addressed. Please address them.

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.

8/19/2022 MY:

Not completed.

Comments 1, 2, 4, 5, 6 are cleared. Please continue working on 3, since the co-financing letter from the private sector is missing.

9/22/2023 MY:

Not completed.

The newly submitted co-financing letters do not meet the requirement of the GEF.

10/3/2022 MY:

Yes. cleared.

Agency Response

8/12/22:

Responses to each of the earlier comments as below:

1. It was agreed at the PIF stage that we would explore the possibility to include Guangxi province but no commitment was made. We did make an effort to engage Guangxi province but the client (MOF and MOT) chose not to select this province and the province itself did not express its interest to participate in the project.
2. The PMC amounts proposed in the CEO ER are proportional between GEF funding and co-financing.
3. Co-financing letters have been provided as part of CEO ER package.
4. This comment needs clarification as it seems contradictory to other comments on the alignment with the focal area and eligibility of technologies based on their market maturity. GEF SEC stated that the GEF funding cannot support EVs in China as the technology is market mature.
5. Both baseline and GEF project scenarios, as well as the GEF project additionality have been strengthened throughout the document in the CEO ER package. Please refer to the above responses to comments on the baseline and alternative scenario.
6. The methodology used is in compliance with the GEF recommended methodology. Please specify aspects of the methodology or assumptions that are not in line with the requirements.

WB 9/19/22:

Noted. The co-financing letters have been revised and resubmitted with other documents.

WB 9/30/22

We have uploaded three new commitment letters from Dafeng Port Group under Yancheng Port, Shandong Port Group and Shandong Shipping to substantiate the co-financing from these companies that is included in the Jiangsu and Shandong DOT co-financing letters.

Council comments

Secretariat Comment at CEO Endorsement Request
8/25/2022 MY

Not at this time.

Canada comments on Project Development Objective:

Notwithstanding the importance of the project and its alignment with Global Environmental Benefits, it should demonstrate in a more robust way its anchoring within the three fundamental objectives emphasized in the GEF-7 Climate Change Focal Area Strategy:

1. Promote innovation and technology transfer for sustainable energy breakthroughs;
2. Demonstrate mitigation options with systemic impacts (e.g. developing carbon sinks through urban forests); and
3. Foster enabling conditions for mainstreaming mitigation concerns into sustainable development strategies

Agency responses to Canada comments on Project Development Objective:

The project now addresses this comment in three ways:

1. It includes more activities to promote innovation and technology transfers for sustainable energy breakthroughs, including use of renewable energy for battery electric vehicles, expanding the initial pilots of hydrogen fuel cell vehicles not just for public buses but also for heavy-duty freight vehicles, and supporting innovations in inland waterway vessels for use of clean energy sources.
2. It supports development of roadmaps to help achieve carbon peak emission by 2030 and reduction in emissions afterwards towards neutrality by 2060.
3. It supports development of technical guidelines and policy framework to address the constraints and create an enabling environment for innovations and investments, including those driven by the private sector

6/22/2022 GEF SEC review comment on Agency responses to Canada comments on Project Development Objective:

Hints to respond the council comments:

Out of the three items listed by Canada, only the first one is relevant for the project. Item 2 is only intended for Impact Programs, and item 3 is only intended for Enabling Activities.

-

The first item is broken down in the 4 investment windows of the GEF7CCM strategy:

CCM1-1 De-centralized renewable power with energy storage;

CCM1-2 Electric drive technologies and electric mobility;

CCM1-3 Accelerating energy efficiency adoption; and

CCM1-4 Cleantech innovation.

Please consider describing the alignment of the GEF/WEB project with any of them which the WB thinks most appropriate.

-

8/19/2022 MY:

Per the four-party meeting, the MOT and the WB revised the project scope in 2020, and the MOF and the GEF confirmed accepting the revision. The above GEF comments are cleared

-

German comments on the Project Development Objective:

Germany appreciates the comprehensive list of project stakeholders. While the PIF clearly states the project's objective, Germany requests that the targeted transport sectors are further identified (i.e., Road, aviation, marine). Furthermore, it would be helpful if the project identifies and/or calculates the potential of job creation in the decarbonization of transport (i.e., maintenance, operation etc.) for each group.

Agency responses to German comments on the Project Development Objective:

The Project Appraisal Document provides further detail on the scope of the interventions under the project, which includes road (electric vehicles, hydrogen fuel cell application for bus and heavy-duty vehicles) and waterway transport (port operation and inland waterway vessels). The policy framework and roadmaps would be encompassing all sub-sectors, also including railway, maritime transport, aviation and urban transport. The PAD provides the project's potential for contributing to job creation in relevant sectors and industries.

8/19/2022 MY:

Per the four-party meeting, aviation and marine transport is no longer in the scope of the project.

To fully address the comments of Germany, in the section of social and economic benefits of the project, please add one paragraph to describe job creation for each of the selected three provinces.

Norway/ Denmark Comments on the Project Development Objective:

The project seems to initially have been developed with a broader approach to transportation and then been adjusted to focus on electrification of transportation in order to comply with requirements from GEF. It would be beneficial if the broader approach could be maintained, both to look at regional integration and transportation needs (flights vs trains, for example), and with a view to the need to reduce the overall need for transportation. In this regard, lessons learned from Covid-19 when it comes to maintaining productivity while reducing mobility should also be taken into account. Hopefully, the large amount of co-funding from the Chinese side would allow for keeping this more holistic approach to decarbonization of the transport sector. Another 19 element that could strengthen the project, is the **introduction of assessments of how implementation of the polluter pays principle** can accelerate the necessary transformation of the Chinese transport sector.

Agency responses to Norway/ Denmark Comments on the Project Development Objective:

The decarbonization roadmaps to be developed both at the national level and for pilot provinces would be based on the avoid-shift-improve framework, presenting the pathways to reduce carbon emissions not just through electrification, but also through demand management and modal shifts. The roadmaps would identify priority policy measures, including regulations and pricing (carbon pricing, fuel subsidy removal, subsidies for low/zero carbon modes, etc.), their implementation period, and how they should be combined with other measures such as investments and technology development.

8/19/2022 MY:

Yes, comments are cleared.

Comment on Project Components

STAP comment on project components (1):

GHG calculation: The project has also provided a detailed emissions reduction inventory based on data collected by the China Academy of Transportation Science (CATS). Direct and indirect emissions reductions are also noted in the appendices, with detailed assumptions and estimates. This is commendable. We would recommend that the methodology for these calculations be streamlined with reference to established international procedures such as the WRI administered Greenhouse Gas Protocol (Scope 1 and 2 emissions).

Agency responses STAT comment on project components (1):

The GHG emission was calculated using the recommended methodology that uses the dynamic baseline, under which economic activities and emission levels change over time under the baseline case, and emission reduction is calculated against this dynamic baseline. The updated emission reduction calculation, based on the adjusted project scope and updated data, is presented in the Annex to the PAD.

8/19/2022 MY:

The comment is addressed, but please address the additional comment above on the GHG calculation that is still open.

STAP comment on project components (2):

The project also has a defined knowledge transfer output which should be highlighted further for transference ? "The Green Transport Development Index (GTI) as part of Subcomponent 1-C. The proponents should consider index development literature in this regard. An index widely used at a macro-level and has some components that may be applicable for this index is the Environmental Performance Index developed by Yale University and the World Economic Forum (<https://epi.yale.edu/>)

Agency responses to STAP on project components (2):

The team appreciates the recommendation. During implementation, development of the Green Transport Index would be based on extensive research on other relevant similar indexes applied in China and internationally, potentially including the one that was suggested by the reviewer.

8/19/2022 MY:

Please follow up on the STAP comment and amend the PAD accordingly to reflect the STAP recommendation. This could be done by mentioning in the project outcome/outputs that adequate consideration will be given to the ?The Green Transport Development Index?, as recommended by GEF STAP,.

STAP comment on project components (3):

An important emerging aspect of this type of project is the **circular economy's** role in decarbonizing and transforming the transportation sector. STAP recently release a report on the circular economy and climate mitigation, which provides valuable insights on this topic, including specific interventions in e-mobility, public transport, and non-motorized mobility. We encourage the project proponent to review this report: Ali, S and Leonard, S.A. 2021. The Circular Economy and Climate Mitigation. A STAP Advisory Document. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, DC.

Agency responses to STAP comment on project components (3):

The team appreciates the recommendation. The national roadmap, policy framework and technical standards will include a strategy on maximizing the benefits of the circular economy as China expands its adoption of electric mobility and other decarbonization solutions, and in so doing, the recommended report and other relevant literature will be referenced. The Ministry of Transport counterpart of the project is well aware of the implications of EV transition on the demand for raw materials and the benefit that the circular economy can bring to the sustainable supply chain of EV and battery production.

8/19/2022 MY:

Following the response on August 12, 2022, please reflect in the project documentation, how circular economy is being considered in the project, and whether there are specificities related to each of the three individual provinces. .

German comments on project components (1)

While information relevant to the baseline scenario is included in the PIF, Germany asks that the description of the project scenario will be strengthened. This should include the ongoing and projected improvements of electric drive technologies.

Agency responses to German project components (1)

The baseline scenario has been updated with the latest available information.

8/19/2022 MY:

The baseline scenario for the whole country has been significantly improved, but more work is needed for the baseline scenario and calculation of direct GHG emission reductions for the three selected provinces. Please see comments in Box 3 of this review sheet.

German comments on project components (2)

Germany appreciates the inclusion of pilot projects in component 2. Yet, we would like to see clearer selection criteria (i.e., urbanization, air quality, climate etc.) for potential new pilot projects.

Germany recommends that component 2 on pilot implementation includes operation and maintenance aspects in the low-emission transport sector. This includes the design of financial mechanisms and models that ensure a return on investment and incorporate the needed maintenance aspects and operation.

Agency responses to German project components (2)

The PAD includes a more detailed description of the province selection, the characteristics and strategic priorities of the selected provinces, as well as their track records that show the political commitment and technical/operational competences to implement the project.

Additionally, the project includes a few strategic studies and reviews that looks at the financial viability of various low-emission transport options, including FCEV buses, inland waterway vessel improvement, and other green transport investments.

8/19/2022 MY:

Not completed.

Please provide details to show how the German Council Member's comment was taken into consideration and why the project opted not to include the design of financial mechanisms and models that ensure a return on investment and incorporate the needed maintenance aspects and operation, as it was suggested.

Comments on Project Component 3

STAP comment on project component 3

Component 3 (capacity building) incorporates elements of behavioral change to help facilitate the adoption of solutions to be proposed under components 1 and 2. As correctly noted in paragraph 7 of the project concept note, "any policy or technology shift towards lower carbon mobility and logistics would entail influencing a vast number of individual consumers and producers." Therefore, we recommend that the proponent review STAP's recent advisory on behavior change, highlighting six strategic levers for changing behavior, to help provide further insight into designing this component. (<https://stapgef.org/resources/advisory-documents/why-behavior-change-mattersgef-and-what-do-about-it>).

Agency responses to STAP comments on project component 3:

Thank you for the recommendation. These principles on behavior changes are helpful and will be incorporated in the development of policy framework under the national component (Component 1).

8/19/2022 MY:

Yes, comments are cleared. But the WB needs to report the progress of incorporating elements of behavioral change in the middle term review.

German comment on Gender

Germany would welcome to address gender equality and women empowerment during the project development phase more strongly. This should include capacity-building of policy makers in designing gender responsive policies and activities to address gender gaps.

Agency responses to the German comments on gender:

The project design strengthened the gender dimension, including a dedicated annex on gender impact analysis and actions. Capacity building component will ensure both women and men benefit from the project.

8/19/2022 MY:

Yes, gender analysis has been improved and the results are attached to Annex 3 of the PAD.

Norway/ Denmark comments on results chain:

The potential impact of the total project, based on combined funding from China's Ministry of Transport, GEF and IBRD, must be considered substantial. However, given the size of the project, many details remain to be developed **for each of the expected outcomes and geographical areas ? and there is relatively limited information in the project description on how decisions on further development will be made/approved.**

Agency responses to Norway/Demark comments on results chain

The project descriptions, including the specific of pilot implementation is provided in the PAD, and the team hopes that this document provides sufficient information that addresses this comment.

8/19/2022 MY:

Please clearly indicate in the PAD where the Norway/Denmark comments are addressed.

Comments on Rationale for Bank Involvement and Role of Partners

Germany's comment on Rationale for Bank Involvement and Role of Partners:

GIZ on behalf of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) is currently implementing the project "Sino-Germany Cooperation on Low Carbon Transport" (2015-2022) which supports the Chinese Ministry of Transport (MoT) on long-term climate change mitigation strategies and the potentials of digitalization for climate friendly transport. Germany recommends seeking an exchange on its approach and the lessons learnt with the project.

Agency responses to Germany's comment on Rationale for Bank Involvement and Role of Partners:

Thank you for the suggestion. The team discussed with GIZ and confirmed to strengthen the synergies between the project and other relevant activities supported by the German government. Collaborations with international partners is articulated in the paragraph 48 of the PAD.

8/19/2022 MY:

Here as follows is a copy of para 48 of the PAD: "48. Experiences from previous GEF-financed projects. This project will build upon the results of the previous GEF projects, including "City Cluster Eco-Transport Project (P121263)" under GEF-4, "Large City Congestion and Carbon Reduction Project (P127036)" under GEF-5, and "Efficient and Green Freight Transport Project (P159883)" under GEF-6. Deliverables under GEF-4 project included planning and policy strategies to improve transport efficiency and reduce energy consumption and GHG emissions on ecological comprehensive transport planning of city clusters. The GEF-5 project provided a strategy to improve public transport services both in terms of extent and quality, and established a national policy framework, strategic plans and guidelines for alleviating traffic congestion and reducing GHG emissions in China's big cities through the establishment of traffic demand management measures. The ongoing GEF-6 project will provide guidance on how to construct an efficient green freight transport system in China. This new proposed GEF project will incorporate the successful outcomes of precedent GEF projects, with emphasis on establishing a comprehensive policy framework for decarbonizing transport and identifying strategies that suits different regions in China."

It seems that Paragraph 48 in PAD has nothing to do with "Sino-Germany Cooperation on Low Carbon Transport" (2015-2022). Please elaborate how the above-mentioned on-going German/MoT project will be incorporated in the baseline scenario of the project.

Norway/ Denmark comments on Rationale for Bank Involvement and Role of Partners:

Finally, we can confirm, based on our Norwegian experience, that there is strong interest for electrification of the transport sector " both when it comes to electric vehicles and green shipping. Our Embassy in Beijing is available for project partners who might be interested in learning from our Embassy's experience with electrification projects

during project development and implementation. We can also confirm that we work very well with EV100, one of the identified project partners, and that we find EV100 to be both a competent and relevant partner.

Agency responses to Norway/Demark comments on Rationale for Bank Involvement and Role of Partners

Thank you for the suggestion. The partnership with the Norwegian Embassy will be sought and is expected to strengthen the synergies between the project and their relevant activities. Collaborations with international partners is articulated in the paragraph 48 of the PAD.

8/19/2022 MY:

As indicated in the previous comment, Paragraph 48 in PAD has nothing to do in addressing Norway/Denmark comment.

Germany?s comment on Private sector engagement:

Germany suggests more emphasis on the role of the private sector in promoting electric mobility in China, especially when it comes to emerging innovations and new technologies.

Agency responses to Germany?s comment on Private sector engagement:

The PAD includes the strengthened description on the role of the private sector, including in the areas of innovations in electric mobility and other new technologies. Specifically, the project would support pilot applications for low-density electric logistics solutions in partnership with logistics/delivery companies, inland waterway vessel development, and port operation improvement, both for water transport and connecting ground transport (container trucks), in all of which private sector would lead the scale-up of the solutions.

8/19/2022 MY:

The German comments remain unaddressed. The German Council member request more emphasis on the role of private investments to promote emerging innovations and new technologies. The project needs the private sector to be involved in delivering outputs and outcomes with their investments. Please follow the guidance of the MOF on July 29, 2022 to engage the private sector in the project with co-financing materialized.

9/22/2022 MY:

Not completed.

Please provide acceptable co-financing letters from the private sector.

10/3/2022 MY:

Yes. cleared.

Agency Response

8/12/22:

Canada comments on the PDO:

The GEF SEC comment on the Agency's response to Canada's comments seems not to be about the adequacy of the Agency's response to the original comment itself, but more about the GEF SEC's views on the project.

We have revised our response to the Canada comment to include the language:

Of the three objectives of the GEF-7 Climate Change Focal Area strategy, only the first - Promote innovation and technology transfer for sustainable energy breakthroughs ? applies to this project. The second is reserved for projects under Impact Programs and the third for Enabling Activities. The project responds to the objective on sustainable energy breakthroughs in three ways:

1. It includes more activities to promote innovation and technology transfers for sustainable energy breakthroughs, including use of renewable energy for battery electric vehicles, expanding the initial pilots of hydrogen fuel cell vehicles not just for public buses but also for heavy-duty freight vehicles, and supporting innovations in inland waterway vessels for use of clean energy sources.
2. It supports development of roadmaps to help achieve carbon peak emission by 2030 and reduction in emissions afterwards towards neutrality by 2060.
3. It supports development of technical guidelines and policy framework to address the constraints and create an enabling environment for innovations and investments, including those driven by the private sector.

Just to add clarification on the private sector investments in hydrogen fuel cell heavy trucks in the news articles provided by the reviewer: the articles state that the reason why hydrogen truck is so ripe for development is because of highly preferential government subsidies. In other words, these technologies are not yet market ready.

As stated above, the project submitted for CEO ER includes the innovative elements as earlier discussed with GEF SEC. It supports the national and provincial roadmap development, development of policy framework and technical guidelines, and support pilot demonstration, adopting the whole of system approach. It brings various technologies in a geographically demarcated zones, and innovate their applications in a systematic manner including for technology adoption, business model, monitoring mechanism, and circling back to policy framework from the lessons from the pilots.

Germany comments on the PDO:

The German comment is requesting the project to identify specific subsectors the project would focus and job creation effects of the proposed interventions. We do not interpret this as providing guidance on which subsectors the project should focus or avoid. Thus, the Agency's response addresses the comment, while the GEF review comment is not about the Agency's response to the comment but rather going back to its own question/opinion on the eligibility and what is considered innovative.

It would be prudent to avoid relying on news articles written for non-experts in designing the project and determining what is innovative or not. The proposed project is prepared by the policymaker and sector authority of the Ministry of Transport, and they are knowledgeable of the status of various technologies mentioned, where further public policy support is needed and why.

Norway/Denmark comments on the PDO:

The GEF SEC comment is not about if the Agency's responses addressed Norway/Denmark's comment, but rather requesting to carry out an additional analysis for the submission of the project package. Such an assessment and policymaking, while necessary, is in the domain of project implementation, as this would be an integral part of analytics that would be based on detailed scenario analysis and inform decarbonization roadmaps. As indicated, the roadmap and policy development under the project will include demand management and pricing as important policy measures.

STAP comments on project components (1):

On the GEF SEC's comment on the hydrogen pilot: As the reviewer pointed out, the TA supported under the GEF aims to identify new policies and strategies to make hydrogen fuel cell vehicle technologies more commercially viable including through lowering the costs of maintenance and operation (please see the response to the Germany's comment on the maintenance and operation). The project does not calculate the emission reduction from lifecycle analysis on project investment, but rather the emission reduction that can be resulted from further mainstreaming of FCEV applications through policy support and strategy developed under the project. Paragraph 31 of PAD has been revised accordingly to make this clear and avoid misunderstanding.

Regarding the calculation methodology, we confirm that the GHG emission reduction calculation uses dynamic baseline, whereby the baseline also moves over time due to the policies and technology changes, albeit slower movement than the case with GEF support.

STAP comment on project components (2): The response to this original comment will be revised, as the GTI has been removed from the project scope.

STAP comment on project components (3): A relevant statement will be included in the PAD, indicating that circular economy will be considered in the decarbonization roadmap development, especially considering the additional resource requirements of

electric mobility. During implementation, the development of new national policy for the transportation sector for China's 2060 net zero-carbon goal will consider circular economy. In fact, the MOT views this an integral part of the roadmap, as stated in the Agency's response to the original comment.

German comments on project components (1): The baseline used for the emission reduction is dynamic, as described in both in the main text and annex of the PAD. The baseline considers China's existing and future policy improvement, technology advancement of electric drive technologies. Further clarification can be provided, if needed.

German comments on project components (2): We believe that the revised package addresses the Germany's comments both on the selection criteria and the aspects of operation and maintenance of near-zero emission transport. First the selection criteria and description of the provinces selected have been detailed in the PAD. Secondly, most (if not all) pilot activities focus on not just the initial investments in clean energy source for transport or new energy vehicles, but also their operation and maintenance, and designing operating models that can sustain demand and financial viability of the pilot projects, such as in case of rural-urban integrated logistics services, near zero-emission ports, and MaaS application. They will be based on a clear strategy to ensure substantial reduction in emission in a systematic manner over the life of these systems during operation and maintenance.

Accordingly, the relevant paragraphs in the PAD will be revised to clarify these points (paragraphs 27 through 29) and the Agency's response to the original comment will be rephrased as follows:

?The PAD includes a more detailed description of the province selection, the characteristics and strategic priorities of the selected provinces, as well as their track records that show the political commitment and technical/operational competences to implement the project. Additionally, the project includes a few strategic studies and reviews that looks at the financial viability of various low-emission transport options, including FCEV buses, inland waterway vessel improvement, near zero-emission ports, and other green transport investments. They are specified in the description of project activities in paragraphs 27 through 29 of PAD.?

STAP comments on project component 3:

The Agency's response will be revised as follows:

Thank you for the recommendation. These principles on behavior changes are helpful and will be incorporated in the development of policy framework under the national component (Component 1) as well as in the MaaS and carbon credit pilot in Jiangsu province (Component 2). The project would employ most of the six levers identified in the STAP guidelines: material incentives, rules and regulations, information, choice

architecture, emotional appeals, and social influences. Specifically, the national policy framework and roadmap would include financial incentives and rules/regulations that would incentivize user choices (both individual travelers and firms). The MaaS and carbon credit pilot in Jiangsu would utilize incentives, information, choice architecture, as well as social influences to promote changes.

Germany comment on gender:

The Agency's response will be revised as follows:

The project design has strengthened the gender dimension, including a dedicated annex on gender impact analysis and actions. The project now captures the gender (and disability) considerations in the roadmaps to be developed under the project, by specifying the outcome indicator, "Number of roadmaps for decarbonizing transport that integrate adequate gender and disability considerations", which would consider roadmaps adequate only if they address gender inclusion and ensure that no transport user is left behind in the new policies. As the roadmaps and policy frameworks are being developed, capacity-building support will be provided to enhance the awareness and capacity of policymakers in considering the gender and disability dimensions.

Norway/Denmark comment on results chain:

We believe these comments were made on the concept note, which lacked detailed description and technical assessment of the components, results chain and indicators on expected outputs and outcomes, and other assessments. These are now provided throughout the PAD and other documents. We cannot specify specific paragraphs as it is the entire package that provides response on the original comment.

Germany and Norway/Denmark comments on Rationale for Bank Involvement and Role of Partners:

These comments are addressed in paragraph 47 of PAD, which is referred to below. Paragraph numbering was changed during the edit of the document.

47. Collaborations with Chinese and international partners. Both during knowledge creation and dissemination, the Project will support collaborations with several relevant partners, both Chinese and international. For instance, under the Project, the existing partnership between the World Bank and EV100, the largest and most comprehensive association of policymakers, industries, and research institutes on electric mobility in China, will be extended, and EV100 will be consulted on key research findings and policy framework. Additionally, several potential international partners, those with strong local presence in China and priority engagement in relevant areas, will also be partnered. Specifically, the Project will collaborate with GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit or German Corporation for International Cooperation), who is currently supporting MOT under the Sino-Germany

Cooperation on Low-Carbon Transport project, focused on long-term climate change mitigation strategies. The collaboration will be extended to other bilateral organizations, including the Norwegian Embassy that is promoting partnership and peer learning on electrification projects in cooperation with Chinese organizations such as EV100.?

Germany comment on private sector engagement:

Please see above responses to the similar question on the private sector engagement and co-financing. The project will promote private sector involvement in innovation, investments in new technologies, which are described in the document. Specific co-financing from enterprises have been identified and co-financing letters will be secured during project implementation.

WB 9/19/22:

Germany comment on job creation: A sentence has been added to para 34 that during preparation of the national and provincial roadmaps, job creation potential in related green industries will be assessed.

STAP comment on component 1 - GHG calculations: We believe this GEF review comment refers to the calculation of the provincial-level baseline and alternative scenarios. As described above, the national-level carbon emission trajectory will be the aggregate of provincial level emissions. In other words, the alternative scenario presented under Component 1 is inclusive of provincial level roadmaps under Component 2. This is now clearly stated in the PAD. The PAD is revised to clearly state the alternative and GEF scenarios concerning the pilot projects in selected provinces (paras 65, 67, and 69).

STAP comment on component 2 - Green Transport Development Index: The response to this original comment has been revised, as the GTI has been removed from the project scope, following the advice the team received from GEF SEC during the project preparation. Specifically, during the Bank's QER stage, the team was advised by the GEF SEC that GTI and MRV system were not eligible for GEF financing. The client agreed to fund these activities from their own sources.

STAP comment on component 3 - circular economy: The PAD write-up has been enhanced to make it explicit how circular economy is considered in the policy framework and roadmap development. These are found in paras 22-24.

Germany comment on component 1 - baseline scenario: As noted in responses above, the alternative scenario presented under Component 1 is inclusive of provincial level roadmaps under Component 2. This is now clearly stated in the PAD. The PAD is revised to clearly state the alternative and GEF scenarios concerning the pilot projects in selected provinces (paras 65, 67, and 69).

Germany comment on component 2 - financial mechanisms and models: Pilot activities will look at operation and maintenance aspects, as indicated in paras 27-29. Through the collaboration with the clients over the past two years, the pilot activities consider financial sustainability and long-term operation and maintenance aspects, through including financing plans in the zero-emission strategies for Shandong Ports and Yancheng Port and in rural-urban integrated mobility and logistic services. This is not exactly designing a financial mechanism, but they look at details of financial viability and device detailed financial plans over a lifecycle, including the operation and maintenance phase. The national level studies include life-cycle emission analysis and carbon accounting for highway and waterways. The MOT is committed to implement pilot scheme to incentivize the operators to lower emissions.

STAP comment on component 3 - behavior change: Recommendation to report on progress on behavior change at MTR is noted.

Norway/Denmark comments on results chain: They are provided in PAD paras 21-31 (component, activity descriptions, and geographical areas), and paras 39-40 and Section VII (outcomes, results framework and monitoring).

German and Norway/Denmark comments on rationale for Bank involvement and role of partners: This comment was and is addressed in **paragraph 47** of PAD (which begins ?Collaborations with Chinese and international partners?). Paragraph numbering was changed during the edit of the document.

Germany comment on private sector: Mobilizing private sector investment is one of the key outcomes of this project, and in order to demonstrate the commitment of MOT and pilot provinces in mobilizing private sector participation, the project includes an indicator to monitor and report on private sector investment to be enabled and mobilized through GEF-financed activities, with the target value of \$15 million by the end of the project.

STAP comments

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

Please see the GEF comments in the previous Box.

8/12/22:

Not yet.

Please see responses in previous box.

9/22/2022 MY:

Yes, comments were cleared.

Agency Response

8/12/22:

Please see responses in previous box.

Convention Secretariat comments

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

N/A

Agency Response

Other Agencies comments

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

N/A

Agency Response

CSOs comments

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

N/A

Agency Response

Status of PPG utilization

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

N/A

Agency Response

Project maps and coordinates

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

The project map may needs to be revised, since Hubei is no longer in the project.

Please attach the revise map in an Annex in the CEO ER document as required by the GEF.

8/12/22:

A correct map was already provided in the submission, which denotes three pilot provinces but not Hubei.

9/22/2022 MY:

Yes, comments were cleared.

Agency Response

8/12/22:

A correct map was already provided in the submission, which denotes three pilot provinces but not Hubei.

Does the termsheet in Annex F provide finalized financial terms and conditions? Does the termsheet and financial structure address concerns raised at PIF stage and that were pending to be resolved ahead of CEO endorsement? (For NGI Only)

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

N/A

Agency Response

Do the Reflow Table Annex G and the Trustee Excel Sheet for reflows provide accurate reflow expectations of the project submitted? Assumptions for Reflows can be submitted to explain expected reflows. (For NGI Only)

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

N/A

Agency Response

Did the agency Annex H provided with information to assess the Agency Capacity to generate and manage reflows? (For NGI Only)

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

N/A

Agency Response

GEFSEC DECISION

RECOMMENDATION

Is CEO endorsement recommended? (applies only to projects and child projects)

Secretariat Comment at CEO Endorsement Request

6/22/2022 MY:

Not at this time.

Please address the above comments.

8/25/2022 MY:

Not at this time.

Please address the above uncleared comments.

9/22/2022 MY:

Not completed.

Please address the co-financing issue.

10/3/2022 MY:

Not completed.

Please revise CCM 1-2 objective content and address the co-financing issue.

10/14/2022 MY:

Not completed.

Please address the co-financing issue.

10/28/2022 MY:

Not completed.

Please address the following comments from the PPO unit of the GEF:

1. On core-indicators: Please include the core indicators in the results framework (annex A). Core Indicators targets need to be aligned with Results Framework (Annex A). GEF Core Indicators should be explicitly mentioned in the Results Framework in Annex A.
2. The budget presented in Annex E can't be reviewed as is. It only includes one line for contractual services for the entire project resources. A comment in the review sheet seem to indicate that budget breakdown is not required. Please provide details for all the contractual services so one can assess the reasonability on how they were charged to the three sources (project components, M&E and PMC). Once provided, the budget will be further reviewed and comments may be further provided as appropriate.

11/1/2022 MY:

The Agency tried to address the comments of the PPO. If further clearance is not needed from the PPO, all commends are cleared.

Review Dates

	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
First Review	6/25/2022	
Additional Review (as necessary)	8/25/2022	9/21/2022
Additional Review (as necessary)	9/22/2022	9/30/2022
Additional Review (as necessary)	10/3/2022	10/5/2022
Additional Review (as necessary)	10/14/2022	10/18/2022

CEO Recommendation

Brief reasoning for CEO Recommendations

The PPO's comments are cleared, the PM recommend circulation of the project documents and then CEO endorsement.

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 four major components: (1) National Roadmap and Policy Framework towards Carbon Neutrality; (2) Pilot Implementation towards Transport Carbon Peaking and Neutrality; (3) Capacity building to strengthen institutional capacity for implementing policies, strategies, and investment for decarbonizing transport towards carbon neutrality; and (4) Project Management and Monitoring & Evaluation. The project aims at avoiding about 57.5 million tonnes of CO₂ 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.

As of October 2022, China still has a strong policy to limit travel and meetings due to potential outbreak of COVID-19 infection, although there has been very small number of reported cases over the past two and a half years. 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 years 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.