



Part I: Project Information

GEF ID

10790

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT No

NGI No

Project Title

Pathways for Decarbonizing Transport towards Carbon Neutrality in China

Countries

China

Agency(ies)

World Bank

Other Executing Partner(s)

Ministry of Transport

Executing Partner Type

Government

GEF Focal Area

Climate Change

Sector

Transport/Urban

Taxonomy

Communications, Stakeholders, Focal Areas, Climate Change, United Nations Framework Convention on Climate Change, Paris Agreement, Climate Change Mitigation, Sustainable Urban Systems and Transport, Renewable Energy, Energy Efficiency, Influencing models, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Demonstrate innovative approach, Behavior change, Private Sector, SMEs, Capital providers, Large corporations, Type of Engagement, Consultation, Information Dissemination, Gender Equality, Gender results areas, Access to benefits and services, Participation and leadership, Gender Mainstreaming, Sex-disaggregated indicators, Capacity, Knowledge and Research, Knowledge Generation, Training, Workshop, Capacity Development

Rio Markers

Climate Change Mitigation

Principal Objective 2

Climate Change Adaptation

No Contribution 0

Biodiversity

No Contribution 0

Land Degradation

No Contribution 0

Submission Date

3/23/2021

Expected Implementation Start

1/1/2023

Expected Completion Date

12/31/2027

Duration

60In Months

Agency Fee(\$)

908,257.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-1-2	Promote innovation and technology transfer for sustainable energy breakthroughs for electric drive technologies and electric mobility	GET	10,091,743.00	107,800,000.00
Total Project Cost(\$)			10,091,743.00	107,800,000.00

B. Project description summary

Project Objective

The Project aims to establish national and sub-national roadmaps, enhance the policy framework for innovation and scale-up of clean energy in transport, and pilot emerging technologies in selected provinces, to decarbonize transport towards carbon neutrality.

Project Component	Component Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
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Project Component	Component Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1: National Roadmap and Policy Framework towards Carbon Neutrality	Technical Assistance	<p>National roadmap established to decarbonize transport towards carbon neutrality</p> <p>Policy framework for innovation and scale-up of clean energy in transport enhanced</p>	<p>- A national roadmap for decarbonizing transport developed that integrates adequate gender and disability considerations</p> <p>- Eight draft policies and technical guides on emerging technologies for decarbonizing transport developed, of which five adopted</p> <p>- Published studies as inputs to the national strategy for transport sector decarbonization towards carbon neutrality by 2060</p> <p>- A carbon emission accounting and monitoring system for transport sector developed and piloted in a selected province/city</p>	GET	3,440,000.00	600,000.00

Project Component	Component Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: Pilot Implementation towards Transport Carbon Peaking and Neutrality	Investment	<p>Sub-national roadmaps established to decarbonize transport towards carbon neutrality</p> <p>Emerging technologies piloted in selected provinces</p> <p>Non-government investments mobilized for low- or zero-carbon transport vehicles and facilities in pilot project areas</p>	<p>Three provincial-level decarbonization roadmaps</p> <p>1. Shandong Province:</p> <p>? Near-zero emission strategy for Shandong port published; hydrogen refueling facility and battery swapping facility constructed (co-financing);</p> <p>? Electrification of inland waterway vessels; two new energy vessels and their power units developed (co-financing)</p> <p>? Evaluation on H2 fuel cell bus application carried out; technical guides developed, relevant national policies and technical standards informed; 150 FCEV vehicles (co-financing from private sector).</p> <p>2. Henan Province:</p> <p>? Operating plans for rural-urban integrated e-mobility and logistics developed and</p>	GET	5,650,000.00	102,927,200.00

Project Component	Component Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Capacity building	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	GET	200,000.00	
Component 4: Project Management and Monitoring & Evaluation	Technical Assistance	Effective project management and M&E	Implementation progress review reports, mid-term review report, implementation completion report	GET	400,000.00	
Sub Total (\$)					9,690,000.00	103,527,200.00
Project Management Cost (PMC)						
		GET	401,743.00	4,272,800.00		
Sub Total(\$)			401,743.00	4,272,800.00		
Total Project Cost(\$)			10,091,743.00	107,800,000.00		

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Transport	In-kind	Recurrent expenditures	1,000,000.00
Recipient Country Government	Department of Transport of Henan Province	Public Investment	Investment mobilized	35,150,000.00
Private Sector	Dafeng Harbor Port Co. under Yancheng Port Group	Other	Investment mobilized	40,700,000.00
Recipient Country Government	Department of Transport of Shandong Province	Public Investment	Investment mobilized	30,950,000.00
Total Co-Financing(\$)				107,800,000.00

Describe how any "Investment Mobilized" was identified

The Ministry of Transport, the participating provinces and SOEs with which they are partnering have agreed to provide co-financing for related activities under their respective components, in total amount of about US\$107.8 million. The co-financing consist of US\$1 million from the Ministry of Transport and National PMO , as well as investment mobilized of US\$30.95 million from Shandong Province (from provincial fiscal budget and Shandong Shipping, an SOE majority owned by Shandong provincial government), US\$35.15 million from Henan province provincial fiscal budget, and US\$40.7 million capital investment from Dafeng Harbor Port Co. under Yancheng Port Group working with Jiangsu province. Beyond the confirmed co-financing amount, the project expects to enable additional private sector investments mobilized for low- or zero-carbon transport vehicles and facilities in pilot project areas, benefited from the policies and technical support under the project (US\$ million)? with the target value of US\$15 million and to be regularly monitored by the PMOs and local government. The itemized project activities and associated financing sources and amount are included in the co-financing table uploaded as a document in the portal.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
World Bank	GET	China	Climate Change	CC STAR Allocation	10,091,743	908,257	11,000,000.00
Total Grant Resources(\$)					10,091,743.00	908,257.00	11,000,000.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount (\$)

PPG Agency Fee (\$)

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
Total Project Costs(\$)					0.00	0.00	0.00

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	7733436	11700000	0	0
Expected metric tons of CO ₂ e (indirect)	19403270	45800000	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	7,733,436	11,700,000		
Expected metric tons of CO ₂ e (indirect)	19,403,270	45,800,000		
Anticipated start year of accounting	2023	2023		
Duration of accounting	20	20		

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	2,730,000	1,500,000		
Male	2,730,000	1,000,000		
Total	5460000	2500000	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

GHG reductions (refer to Annex 2 of the PAD for detailed explanation and calculations) 1. Direct emissions reduction will be generated through the pilot activities in the three provinces. Total direct emission reduction is 1,015,009 tCO₂e during the first 5 years and would reach at least 11.70 million tons during the 20-year life cycle of the project investments, in comparison to the baseline scenario. Shandong Province Baseline scenario. There are 67,542 buses running within cities and 20088 buses running between cities. Under the government plan, all buses need to be replaced by clean energy buses (i.e., electricity, hydrogen, etc.). In Shandong province, the ongoing hydrogen fuel cell bus pilot is running without a full life-cycle analysis such as consideration of sustainable green hydrogen supply. The current fuel uses in Shandong ports include 1.2 billion kwh electricity, 100,000 tons of diesel, 200,000 tons of steam and 2,600 tons of natural gas with annual cargo increase about 5%. Shandong ports group has its own strategy of graduating shifting part of the fossil fuel usage to electricity in recent years and hydrogen in the future. The current strategy is conservative on the share of clean energy and roll out timeline, with both technical and financial concerns. Xiaoqinghe river port, which is at the local government priority to be resurrected in 2023, is estimated to have 250 vessels and 53 million tons turnover. Research on low/zero-carbon fuels for vessels is at early stage and need further market review, assessment on economic and technical feasibility of their applications, and policy support and investments for pilot implementation. The readiness of port to upgrade the infrastructure and operations for low/zero-carbon fuels vessels is low. GEF additionality and emission reduction: On the hydrogen pilot side, the GEF's additionality comes from highlighting the importance of lifecycle analysis for operating and maintenance phases and green hydrogen scale-up. Given the government's ambition to replace current bus fleet with

clean energy buses and the advantage of hydrogen fuel cell buses over electric buses on running long distance, it is estimated that buses running between cities have the potential to use hydrogen as fuel. Within the 5-year project period, 2.5 percent of the current bus fleet (500 buses) will be the first batch to be switched to hydrogen fuel cell buses as pilot, resulting in 54,065 tons of carbon emission saving, and indirect effect could be up to 1,250,000 tons in the next 20 years with a third of long-distance buses gradually shifting to hydrogen fuel cell buses. For Shandong ports, with GEF support to explore the full potential of electrification, use of solar and wind power in on-site electricity generation, and roll out of hydrogen in freight, direct CO₂ saving to Shandong ports is around 500,000 tons and indirect saving around 6,800,000 tons. For Xiaoqinghe river port, with GEF support to expediate the process of vessel electrification, though the direct effect within project period is about 37,000 tons of CO₂ saving, the indirect effect could be up to 360,000 tons of CO₂ saving. The integration of the provincial level decarbonization roadmap and technical deep dive for port decarbonization will unlock more emission reduction outside the vicinity of ports, through better multi-mode connections and enhanced readiness for receiving vessels powered by low/zero-carbon fuels. Direct emission reduction during the first 5 years is estimated to reach 596,047 tons; emission reduction for 20 years is 8,399,116 tons. The amount of diesel fuel saved is estimated to be 145,738 tons for the first 5 years and 1,357,176 tons for 20 years. Amount of waterborne gasoline saved is estimated to be 19,380 tons and 157,463 tons for the first 5 and 20 years, respectively. Henan Province Baseline scenario. The rural-urban transport demand in pilot counties in Henan sharply increased, from 10.22 million in 2015 to 19.88 million in 2020, or at an annual average rate of 14 percent. Currently, buses (which have already been electrified) account for less than 18 percent of total trips gasoline private cars 30 percent, less than 1 percent electric private cars, and electric two-wheelers for the rest. Under the baseline scenario, the modal share will remain the same if no interventions happen. On the freight side, the upsurge in e-commerce has led to a sharp rise in use of urban-rural delivery vehicles. In Xun County, for example, the number of daily urban-to-rural delivery has reached over 52,000 parcels. With a 5 percent annual increase in e-commerce parcels, the annual emissions from delivery trucks in three pilot counties are estimated to be over 46,000 tons in the next five years. Under the baseline scenario, 15 percent of urban-rural parcel delivery is using the existing e-buses which can carry both passenger and goods, and the rest 85 percent is run by separate, fossil-fuel delivery vehicles. GEF scenario and emission reduction. With GEF support, the modal shift to electric buses from other modes would accelerate through building an on-demand mobility and integrated logistics platform, promoting use of public transport, and advancing the share of new energy vehicles. In 10 years since the beginning of project implementation, the modal share would be 24 percent by electric buses, 24 percent by private gasoline cars, and 2 percent by electric cars, and the rest by two wheelers. In addition to that, the share of urban-rural parcel delivery through existing e-buses would increase to 25 percent. The physical integration of terminals and operational integration of rural-urban transport services would directly reduce unnecessary trips through

consolidation of shipment and sharing space in vehicles and facilities. The indirect benefit includes increased service level for both passenger and freight. As a result, the total carbon emission reduction from both passenger and freight transport during the first 5 years after project implementation is estimated to be around 144,067 tons and up to 1,438,909 tons in the next 20 years. The total gasoline saved is estimated to be 13,815,298 liters for the first 5 years and 248,162,884 liters for 20 years. Jiangsu Province Baseline scenario. At Yancheng Port, annual emission in 2020 reached over 175,000 tons, due to fossil fuel use for vehicles and electricity sourced from the national grid which is highly dependent on coal generation. With the cargo turnover increasing approximately 3 percent each year, the emission level is expected to be doubled in 20 years. Under the baseline scenario, without GEF support, electrification of port operation using renewable powers would start in 10 years, achieving full electrification before 15 years. Provision of electric charging for trucks would increase gradually, achieving full electrification in 20 years. GEF scenario and emission reduction. With GEF support, Yancheng Port would accelerate electrification of its operations, achieving 100 percent usage of electricity generated from clean energy, including renewable power. Nearly full electrification of trucks and other logistics vehicles will be achieved within 10 years. The total carbon emission reduction within project year is expected to be 274,895 tons for the first 5 years and could be 1,861,350 tons in the next 20 years. The amount of gasoline saved for the first 5 years is estimated to be 26,326 tons, and 268,186 tons for the 20 years.

2. Indirect emissions reduction is estimated at 45.8 million tons to be achieved from (i) implementation of the roadmaps, which would advance transport carbon peaking in China from later than 2040 to 2030, and (ii) replication effect of the pilots across China. Advancing carbon peak emission through roadmap, policy framework and technical standards: The World Bank analysis, carried out in collaboration with the China Academy of Transport Sciences (CATS), compared the alternative scenario with enhanced policies and the GEF project scenario that would accelerate decarbonization. Under the alternative scenario, transport sector carbon emission is likely to peak around 2035 and decrease afterwards to about a quarter of the current level by 2060. Under the GEF scenario, the decarbonization process would be accelerated, enabling advancing of the emission peak to 2030 and decreasing the emissions to below one tenth of the current level by 2060. This would result in significant emission reduction (see the shaded areas between the two scenarios), up to 185 Mt during 2023-2030 and 3,116 Mt during 2023-2040 period. Attributing 1 percent of the reduction to the GEF contribution. Attributing 1 percent of the reduction during 2023-2043 to the GEF contribution, indirect emissions reduction would be around 31 million tons. Replication effect of the three pilots: It is estimated that the Xiaoqinghe river port pilot in Shandong will be replicated in all the 50 river ports in Shandong as the province is considering shifting river vessels to use clean energy. The experience from the Henan pilot will be disseminated to the 52 counties who have enrolled in the national demonstration program for urban-rural integrated transport under the capacity building component, and it is estimated that the Henan pilot approach will be scaled up in at least 20 counties. There are over 1000 inland waterway ports including 28 major ports. The

experience from the zero-emission pilot at Yancheng Port will be disseminated to all inland waterway ports and it is expected that at least 10 ports (especially the major ports) will take up similar zero-carbon approaches. These replications will result in an estimated emission reduction totaling 73.8 million tons. In accordance with the Manual for Calculating Greenhouse Gas Benefits of Global Environment Facility Transportation Projects, the project has applied a level 1 GEF causality factor to these indirect emissions, attributing 20 percent of the indirect emissions to the GEF contribution, arriving at an estimate for indirect emissions reduction from the replication of the pilots of 14.8 million tons. Direct beneficiaries: There would be around 2.5 million direct beneficiaries, of which at least 40 percent would be female. The development of roadmap and policy framework will directly benefit the following groups of people: i) 1,000 researchers and consultants will enhance their technical capacity on decarbonizing transport; ii) 500 government officials will be informed by the enhanced roadmap development and policy framework; iii) 1,000 people will be trained, including 40 percent female. The pilot investment will have the following direct beneficiaries: i) 5,000 staff from bus, terminal, and logistics operators in Henan will benefit from lower emission terminal and operations; ii) 1 million passengers and citizen in Henan will enjoy greener buses and logistics services, including around 50 percent female; iii) 5,000 staff from Shandong and Yancheng ports will benefit from near-zero port operations; iv) 1.5 million citizens in pilot cities in Jiangsu (around 50 percent are female) will benefit from the MaaS pilot for better and greener urban transport services.

Part II. Project Justification

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

The project will have national-level TA that cover the entire China. The project will also have three pilot provinces, namely Jiangsu Province, Henan Province, and Shandong Province.

Jiangsu (Yancheng Port): 33.4106° N, 120.1495° E

Henan

- Xin County: 31.6439° N, 114.8793° E

- Xun County: 35.6762° N, 114.5508° E

- Yongcheng: 33.9291° N, 116.4495° E

Shandong (Jinan) :36.6518° N, 117.1201° E



2. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Please see attached Stakeholder Engagement Framework (SEF), prepared by the national PMO within MoT.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

The SEF identifies the stakeholders involved in TA activities based on the existing project information. Stakeholders will be further screened and identified during project implementation.

For the TA activities, project-affected parties mainly include three categories: a) those affected by studies under the TA activities, mainly being fieldwork consultants and researchers; b) urban and rural residents, including low-income residents, especially those with special traffic needs, such as the disabled groups, who are unable to participate equally and effectively, and whose opinions or concerns are likely to be ignored; c) those affected by downstream activities of the TA activities, mainly including persons affected by land acquisition (LA) and/or house demolition (HD); urban and rural residents; workers (including direct workers, contracted workers and primary supply workers), communities and residents affected by transport facility operation (including ethnic minority residents); some enterprises and workers, including highway passenger and freight transport enterprises, logistics

enterprises, travel agencies, passenger stations, enterprises in automotive raw material, parts and vehicle industries, etc.

In particular, vulnerable groups under the TA activities mainly include the following three categories: a) urban and rural low-income residents, the disabled, ethnic minority residents, etc.; b) rural and ethnic minority residents affected by LA, HD and/or restrictions on land use during the construction and operation of the facilities; and c) contracted workers affected by working conditions and occupational health and safety (OHS) during the construction and operation of the facilities construction or manufacturing; d) vulnerable groups in nearby community residents affected by noise, dust, waste gas, wastewater, construction camps, fires, explosions, chemical leakage, traffic accidents, etc. during construction and operation, and e) small enterprises and workers affected by downstream activities, who may become unemployed during enterprise transformation. Other interested parties mainly include relevant ministries, provincial and local authorities in charge of project decision-making and implementation, TA contractors, manufacturing enterprises, industry associations, research institutes, NGOs, news media, etc.

At different stages of the TA activities, the National PMO, Provincial PMOs and TA contractors will conduct meaningful stakeholder engagement activities respectively. Meaningful engagement is a two-way process that should:

- ? begin early on during project planning, collect preliminary comments on the Project, and affect the project design;
- ? encourage stakeholders to give feedback, especially as a way to affect the project design, and involve stakeholders in identifying and mitigating E&S risks and impacts;
- ? be conducted continuously with the emergence of risks and impacts;
- ? disclose and disseminate relevant, transparent, objective, meaningful and readily available information in advance in order to conduct meaningful engagement with stakeholders in a culturally appropriate manner, using the local language and in a form understood by them within a timeframe;
- ? consider and respond to feedback;
- ? support the extensive participation of all project-affected parties; and
- ? be free from external manipulation, interference, intimidation and discrimination.

The stakeholder engagement methods include without limitation:

- ? Key informant interview;
- ? FGD;
- ? Door-to-door interview;
- ? Questionnaire survey and online public consultation;
- ? Public meeting;
- ? Seminar and symposium;
- ? Hearing, etc.

At different stages of the Project, different engagement methods should be applied to different stakeholders, as detailed in Table 4-7. Special methods should be applied to vulnerable groups to prevent them from being excluded. See Section 4.4 for details.

Table 4-7 Modes of Stakeholder Engagement

Stage	Scope	Time	Main stakeholders	Participation mode
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Stage	Scope	Time	Main stakeholders	Participation mode
Preparation	Discussing the research scope and methods of the TA activities, etc.	Before the beginning of the studies under the TA activities	Relevant decision-making authorities, local governments, industry associations, enterprise reps., urban and rural residents, etc.	Seminar, symposium, questionnaire survey, etc.
Research	All stakeholders give constructive comments on the technical solutions, standards, policies, etc. of the TA activities.	During the studies under the TA activities	Relevant decision-making authorities, local governments, industry associations, representative enterprises, urban and rural residents (including vulnerable groups)	Seminar, symposium, key informant interview, FGD, door-to-door interview, anonymous questionnaire survey, etc.
Review	Collect stakeholder comments on the research output under the TA activities, revise them, and give feedback timely.	Review of the research output under the TA activities	Relevant decision-making authorities, local governments, industry associations, representative enterprises, urban and rural residents (including vulnerable groups)	Seminar, symposium, hearing, FGD, door-to-door interview, anonymous questionnaire survey, online consultation, etc.

All public consultation and participation activities, and their findings and suggestions will be recorded.

For vulnerable groups, their features and needs should be considered in information disclosure and engagement activities.

1) Information disclosure strategy

These groups are poorly educated or live in remote areas, and are unfamiliar with intelligent means of living (e.g., rarely using smart phones, Web and other new media). They are likely to be excluded from the design and construction of the TA activities. Therefore, their vulnerabilities in education, information acquisition ability, etc. should be considered in information disclosure activities. An understandable language should be used and the notification method used to ensure that they receive relevant information timely.

2) Engagement strategy

Take appropriate measures to ensure that vulnerable groups express their concerns and suggestions freely during engagement, including:

- ? Hold an FGD with them separately, or interview them one by one;
- ? Use the local language during communication, and assign interpreters if necessary;

? Ensure that consultation times and venues are suited to their needs; for example, participation activities for farmers should not be conducted in the busy season, those for workers should not be conducted at workplaces, and those for old people and disabled may be organized by communities and disabled persons? federations;

? Describe reasons for adoption or non-adoption of their views as part of consultation, and give feedback.

If any TA subproject involves any ethnic minority area or is related to ethnic minority residents, information disclosure and stakeholder engagement will be conducted in a culturally appropriate, and gender- and generation-inclusive manner in accordance with the Bank's ESS7 during the studies under the TA activities to ensure that ethnic minority residents are engaged meaningfully, and their comments are incorporated into the research output or project design, so that ethnic minority culture, knowledge and customs are considered in the research output, project design and risk management suggestions, and ethnic minority residents are fully respected and benefit equally in future downstream activities, mainly including:

? Encourage ethnic minority communities to participate in plans and policies involved in the studies, feasibility studies or technical design under the TA activities, or effectively;

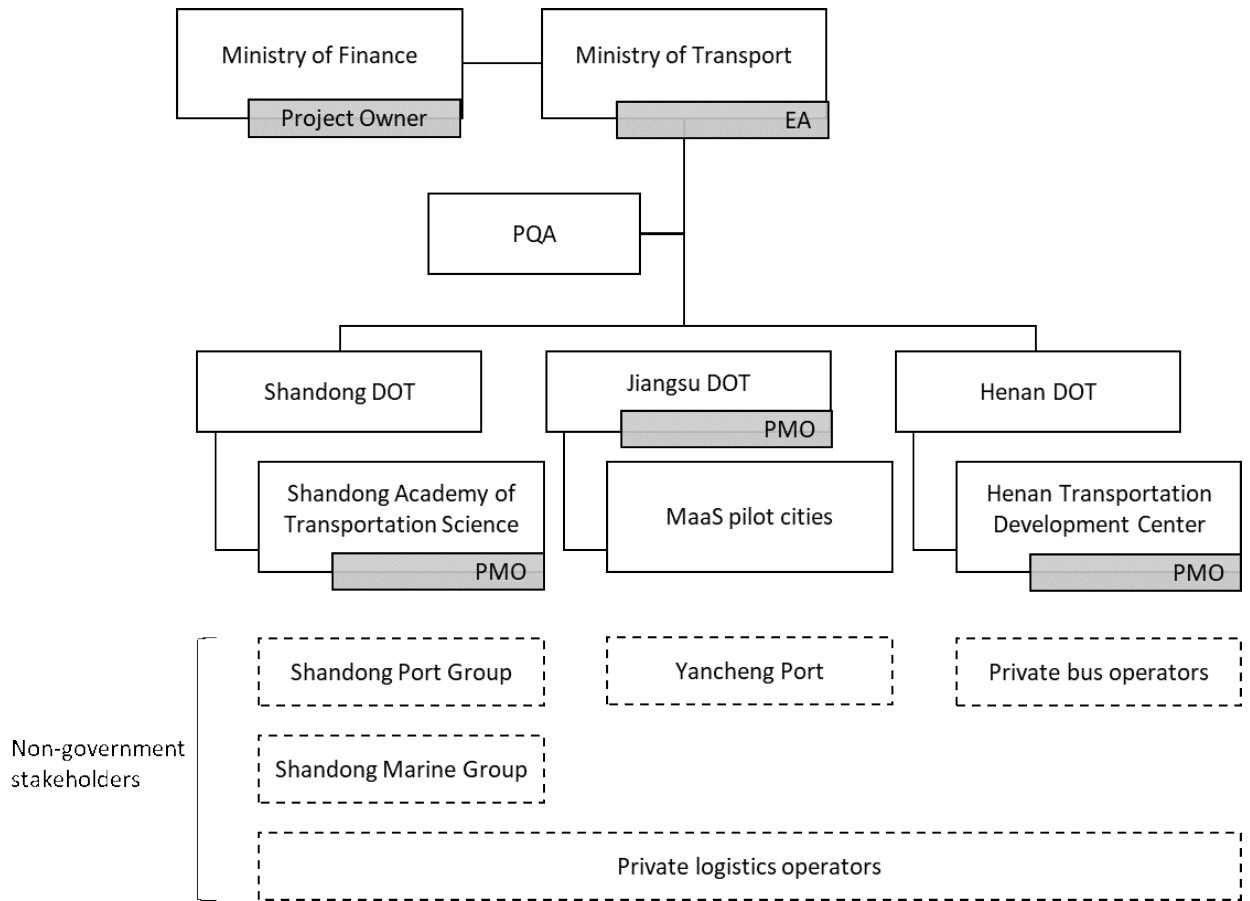
? Respect ethnic minority customs and taboos, and appoint staff familiar with local customs and languages for information disclosure and communication;

? Provide sufficient time for decision-making by ethnic minority communities; and

? Provide traffic arrangements to the nearest venue for ethnic minority residents in remote areas.

The NPMO will review and supervise the preparation and implementation of the stakeholder engagement plan, and ask the PPMOs and TA contractors to conduct fair, open, just and transparent public participation and consultation to protect the interests of all stakeholders, and promote successful project implementation. The NPMO, PPMOs and TA contractors will arrange staff and budget to conduct information disclosure and public participation activities.

Implementation Arrangements chart



- Prospective private logistics operators in Shandong includes: [TBC]
- Prospective private logistics operators in Yancheng Port includes: [TBC]
- The private bus operator in Xun Country is Huilong Bus Company.

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assessment.

Gender Analysis and Action Plan (included as Annex 3 to the PAD)

Gender Analysis

1. As the world seeks to decarbonize transport, awareness needs to be raised that transport system design and use are not gender neutral, and nor are the causes and impacts of climate change. To create an inclusive and sustainable transport system, these gender dimensions need to be understood and addressed. Women's travel behavior is often not taken into consideration in the design of infrastructure and services. Future low- or zero-carbon mobility options must recognize women's needs to avoid further gender gaps. The World Bank Research shows that Chinese women are exhibiting more sustainable travel behavior than men, e.g., walking and using public transport more than driving; women are at the center of transforming transport.¹[1] Alongside the confusion and hardship brought on the COVID-19 pandemic, the global crisis has exacerbated or amplified women's mobility problems by further limiting their travel options and forced them to change their travel behavior. But the pandemic has also created a window of opportunity for seeking more sustainable, inclusive and resilient models of economic growth and transport activity.

2. Innovation and scale-up of clean energy in transport created new opportunities and the development of pathways for decarbonizing transport. Carbon-neutral transport system would provide very different mobility options than the current carbon-intense 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. Women must be part of these discussions as the main drivers of change. They must play an active role in the way towards transport services that are attractive to both genders and promote a more gender-balanced transport workforce. Increasing the representation and visibility of women at all stages of transport policy, planning, implementation, and usage of transport projects will make transport more responsive to the needs of all users and increase the sustainability of transport development.

Gender Action Plan

3. In setting out policies and piloting these new mobility solutions, the Project will assess and take into consideration of their impacts on genders and will promote gender equality through incorporating gender considerations in project design, implementation, and M&E. The stakeholder engagement framework to be prepared will ensure meaningful consultation with women to inform project design. During implementation, consideration will be given to increasing the number of jobs generated for women; the policies and strategies for decarbonizing transport will incorporate gender considerations. In the capacity building component, capacity building activities will include specific modules on inclusive transition, to ensure that decarbonizing transport benefits both genders equally.

4. The gender action plan, laid out below, identifies gaps associated with project interventions, and measures actions to be supported under the project.

Gender gaps	Project interventions	Measures and Actions
<p>? Unbalanced participation and decision making in the planning and policy making on emerging technologies for decarbonizing road and waterborne transport</p> <p>? Lack of gender-sensitive policy design of the decarbonizing transport which limit women's meaningful access to new technologies and services.</p> <p>? Women are likely to be under-represented in capacity building and knowledge sharing activities on decarbonization.</p>	<p>? Promoting gender-inclusive stakeholder engagement through addressing barriers related to women's equal participation and leadership in consultation and decision-making processes.</p> <p>? Developing policies and strategies for decarbonizing transport that incorporate differentiated pattern and needs of both genders</p> <p>? Ensure women's access to new knowledge and skills by fairly participating in training and capacity building activities, promoting outreach and gender-sensitive knowledge sharing and communication.</p>	<p>? Stakeholder engagement consultations include a good balance between women and men</p> <p>? Transport decarbonizing policies and strategies take gender into consideration to enhance both women and men would benefit equitably, and to ensure that the gender gaps are reduced.</p> <p>? Gender inclusiveness in capacity development activities with a fair participation of both genders</p>

5. The results of the gender action plan above will be measured by the following intermediate results indicators in the project results framework:

Indicator Name	Definition/Description
Decarbonization roadmap development process that integrate adequate gender and disability consideration	Plans and strategies has specific sections that identify gender gaps and include gender-specific policy actions/implementation strategies to reduce the gap
Ratio of female participants in stakeholder consultations, policy planning workshops or decision making meetings on decarbonization	At least 40 percent of the participants are women
Number of people receive decarbonization related training and capacity building activities	The ratio of female participants in the training of related fields will be 50 percent

[1] World Bank (2016) Guideline for Incorporating Gender into ITS Planning, Design and Operations

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

Built upon the public sector-led interventions, the Project is expected to create an enabling environment for private sector engagement in developing and implementing solutions for decarbonization and eventual carbon neutrality in China. The Project would create a favorable policy environment and clearly articulated technical standards that would promote private sector-led technology innovations. The roadmaps for carbon peaking and neutrality to be developed both at the national and pilot levels would, when they are adopted and announced by respective governments, provide confidence and help mitigating risks of private investments into new technologies and infrastructure in the same directions, accelerating allocation of private capital for greener investments. In order to maximize such impacts, key private sector players will be engaged and consulted upon during project implementation, particularly in development of policies and technical guides as well as in pilot implementation. Decarbonization in freight and logistics sector are highly depended on private sector. The national component activity will address the policy gap in regulating and incentivize private sector players in freight and logistics sector.

In addition to the public investment, the proposed project is expected to enable investments and financing from public and private enterprises. Specifically, the pilots in the ports of Shandong and Jiangsu and terminals in Henan will directly involve private companies. The urban-rural integration pilot in Henan will enable private sector to reduce carbon emission through joint delivery demonstrations. There are largely two major ways that the proposed project enables investments: (i) directly through co-financing and (ii) indirectly through market development. First, some parts of the grant funding support technical studies, which can be taken up by local governments, state-owned enterprises, and private companies for implementation, using their co-financing. Examples include: R&D on portable power unit for electric inland waterway vessels in Shandong, development of

operating platform for integrated electric rural-urban passenger and freight services in Henan, and near-zero emission pilot port operation in Jiangsu. Second, other parts of the grant funding support development of technical guides, detailed assessment of financial and technical viability of certain decarbonization measures, and development of framework. These would enable investments from public and private enterprises in the longer-term, as they would mitigate technical and financial risks of their investments and thus leads to market development. Examples include: national technical guidelines on emerging decarbonization technologies by MOT, technical guide on hydrogen fuel cell bus operation in Shandong, and development of framework of MaaS in Jiangsu. The technical studies of the first category would enable investments both directly (through co-financing) and indirectly (longer-term market development).

In addition to what has been committed in the co-financing letters, the project aspires to mobilize commercial, non-government investments, which would be measured by the proposed outcome indicator "Non-government investments mobilized for low- or zero-carbon transport vehicles and facilities in pilot project areas, benefited from the policies and technical support under the project" with the target value of US\$15 million, to be regularly monitored by the PMOs and local government.

5. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification *

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial	High or Substantial		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

E&S due diligence review was conducted by the Bank task team on the draft project proposals, the Project Appraisal Document (PAD), as well as the ESMF, SEF and ESCP prepared by the national PMO. The project has overall E&S benefits of promoting clean and carbon neutral development and improving the efficiency of transport operation in China and the pilot provinces, and therefore reducing GHG emission, improving air quality, and contributing to climate change mitigation. By undertaking targeted TA work in identifying low carbon transport options, the project will allow specific social development and inclusion aspects also to be fully considered which will in turn improve the social outcomes from subsequent transport and financing proposals.

The project consists of TA activities at national, provincial or county level, and for specific ports, which include: a) transport decarbonization roadmaps development for China and three pilot provinces; b) studies on national policy framework and technical standards for transport decarbonization, and transport emissions evaluation framework; c) technical evaluation and guidelines development for Shandong province's ongoing hydrogen fuel cell electric bus pilot, and R&D of prototype portable power units for electric vessels; d) study on establishing Jiangsu province's green mobility platform; e) study on a mobile platform for integrated rural-urban passenger and freight service and study on near-zero emission depots, terminals and interchanges in selected counties of Henan province; f) study on near zero emission strategy for Shandong Ports and Yancheng Port operation; g) related capacity building and project management and monitoring supports.

R&D of prototype portable power units for electric vessels in Shandong Province is likely to be carried out by an existing manufacturer. E&S audit will identify potential risks with historical compliance with regard to operational pollution control and OHS management of candidate manufacturer, and the project will not select manufacturer that has outstanding E&S legacy issues or material E&S non-compliance that cannot be remedied within a reasonable timeframe to the satisfaction of the Bank. TA in selected counties of Henan province will support establishment and operation of mobile platforms for 'supply-demand' match, the E&S impacts of which are negligible.

The roadmap, policy, strategy, and technical studies at national and local levels will identify policies, priority investments and technology development, and inform the government's longer-term strategies, and the project will not support the implementation of the recommendations. Implementation of this type of TA activities will not cause any direct adverse E&S impacts except moderate OHS risk to workers conducting field investigations. The TAs, however, will involve significant stakeholder engagement and have downstream E&S impacts during the implementation of the products/outcomes of TAs. For example, following the transport decarbonization roadmap recommendations, there could be nationwide new construction or upgrading of transport and logistics terminals, charging piles, distributed renewable energy facilities, hydrogen generation and refueling stations, energy storage and transmission facilities, manufacturing of clean energy vehicle and vessels. The significance of the E&S risks and impacts will vary by the type, location, and scale of the downstream activities. Although the

majority of the impacts are predictable, reversible, localized, and readily avoided/mitigated, the spatial extent is large, and there could be cumulative impacts from collectively significant downstream activities taking place over a period of time in a region.

The capacity building activities (type 3 TAs) will be held either virtually or in existing buildings following domestic COVID-19 guidelines, thus will not have direct physical footprints on a certain geographic location requiring E&S assessment of the intended activities.

Given the above E&S assessment results, the national PMO has prepared an ESMF to set out the principles, procedures, and requirements for managing the underlying E&S risks and impacts of the project. The ESMF (i) reviewed the high-level E&S baselines of the country and three pilot provinces; (ii) compared the domestic regulatory framework and the ESF and proposed gap-filling measures; (iii) screened and assessed the potential E&S risks and impacts of the TAs; and (iv) set out E&S management and monitoring procedures and measures for the TAs.

The ESMF and ESCP have formulated relevant actions and measures to ensure that the implementation of the TAs shall adequately consider E&S risks and impacts, and the SEF will guide the TAs implementation with meaningful, inclusive and culturally appropriate stakeholder engagement and public consultation. All TA contractors shall prepare a Stakeholder Engagement Plan (SEP) as part of the TA work plan before conducting the specific TA activity. An exclusion list was developed in the ESMF to exclude the types of TAs which is linked to existing or ongoing projects, facilities or activities with outstanding E&S legacy issues or material E&S non-compliance that cannot be remedied within a reasonable timeframe to the satisfaction of the Bank; which will have high-risk social ramifications inherent in the downstream application of its direct output(s); and which will include recommendations that may cause long term, permanent and/or irreversible adverse impacts, or have high probability of causing serious adverse effects to human health and/or the environment, or have adverse impacts on cultural heritage. The TORs for type 2 TAs will require TA contractors to have E&S specialists' input on screening and analysis of any downstream direct, indirect and cumulative E&S implications (and elements of strategic E&S analysis especially focusing on alternative analysis for roadmap studies) with regards to each relevant ESS, and the study outputs will have specific chapter on the E&S assessment results and recommendations for mitigation. With regard to moderate OHS risk for field workers, the ESMF and ESCP require that the TORs will set out provisions to require TA contractors (and their subcontractors) to protect workers' rights, health, and safety. If during implementation the project will include new type 1 TAs supporting feasibility study or technical design of physical investments, the TORs for these type 1 TAs will require alternative analysis on the placement location and design, and ensure that relevant E&S issues are taken into account in conducting the feasibility study and technical design in a manner that is consistent with the ESF, applicable Bank's EHSGs and GIIP. Where TA supports detailed technical design of physical investments, a suite of Bank policy-compliant E&S instruments (e.g. Environmental and Social Audit,

Environmental and Social Impacts Assessment (ESIA), Environmental and Social Management Plan (ESMP)) will be prepared, consulted and disclosed by TA contractors for the eventual investments. The TORs and outputs of all TAs will be prior reviewed by the Bank's task team to ensure that relevant ESSs of the ESF are complied with.

During the implementation, the national PMO agreed to recruit one environmental and one social specialist, with adequate experience and qualification, to be responsible for the implementation of ESMF, ESCP and SEF for the whole project covering both national and pilot provincial components. Additional support may be sought from external environmental and social consultants to assist the E&S management work. The national PMO and provincial PMOs will monitor the implementation of the ESMF, ESCP and SEF, and provide semi-annual progress reports to the Bank's task team on the implementation performance.

The draft E&S documents (including ESMF, ESCP and SEF) were locally disclosed on April 29, 2022, and captured the comments and recommendations received accordingly.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
P175561 ESMF 20220811	CEO Endorsement ESS	
P175561 ESCP 20220811	CEO Endorsement ESS	
P175561 A-ESRS 20220811	CEO Endorsement ESS	
P175561 ESMF 20220613	CEO Endorsement ESS	
P175561 ESCP 20220613	CEO Endorsement ESS	
P175561 A-ESRS 20220613	CEO Endorsement ESS	
Concept ESRS P175561	Project PIF ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Note on the Results Framework: 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 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 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.

In addition, the outcome indicator of ?the number of investment plans or project proposal refereed to the documents developed under the Project.? is included in the Results Framework to capture the impact of piloting emerging technologies in selected provinces for GHG mitigation.

COUNTRY: China
Pathways for Decarbonizing Transport towards Carbon Neutrality in China

Project Development Objectives(s)

The Project aims to establish national and sub-national roadmaps, enhance the policy framework for innovation and scale-up of clean energy in transport, and pilot emerging technologies in selected provinces, to decarbonize transport towards carbon neutrality.

Project Development Objective Indicators

RESULT_FRAME_TBL_PDO

Indicator Name	PBC	Baseline	End Target
Establish national and sub-national roadmaps for decarbonizing transport			
Number of roadmaps for decarbonizing transport that integrate adequate gender and disability considerations (Number)		0.00	4.00
Enhance the policy framework for innovation and scale-up of clean energy in transport			
Adoption of technical guidelines on emerging technologies for decarbonizing road and waterborne transport (Number)		0.00	5.00

RESULT_FRAME_TBL_PDO

Indicator Name	PBC	Baseline	End Target
Pilot emerging technologies in selected provinces			
Number of decarbonization projects that apply emerging technologies identified in the selected provinces (Number)		0.00	3.00
Non-government investments mobilized for low- or zero-carbon transport vehicles and facilities in pilot project areas, benefited from the policies and technical support under the project(US\$ million) (Amount(USD))		0.00	15.00

Intermediate Results Indicators by Components

RESULT_FRAME_TBL_IO

Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
1. National Roadmap and Policy Framework towards Carbon Neutrality					
Policies and technical guidelines for innovative technologies for decarbonizing transport drafted (Number)		0.00			8.00
Research report on transport sector decarbonization towards carbon neutrality (2030-2060) (Text)		Not developed			Report published with endorsement by MOT
Development and pilot application of a carbon emission accounting and monitoring for transport sector (Text)		Not developed	at the end of first year of implementation (September 2023), methodology and data collection protocols developed	at the end of second year of implementation (September 2024), prototype developed and is ready for pilot application for a selected province or city.	Prototype successful piloted in a province or city and ready for scale-up
2. Pilot Implementation towards Transport Carbon Peaking and Neutrality					

RESULT_FRAME_TBL_10

Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
Shandong: Development of technical guides on hydrogen fuel cell bus operation (Text)		Not developed			Developed and adopted in Shandong
Shandong: Development of zero-emission strategy for Shandong Ports (Text)		Not developed			Developed and adopted in Shandong
Shandong: Development of a technical guide on new energy vessels (Text)		Not developed (to include interim targets)			Adopted and applied in 2 of vessels in Shandong
Henan: Development of operating plans for rural-urban integrated electric mobility and logistics services (Text)		Not developed	at the end of first year of implementation (September 2023), operational plans developed	at the end of second year of implementation (September 2024), integrated mobility platform has started pilot operation	Fully operational by end of third year of implementation (September 2025)
Henan: Proof of concept for near-zero emission bus depots and terminals (Text)		Not developed			Developed and adopted in Xin County
Jiangsu: Development and pilot application of a provincial level carbon emission accounting and reporting system (Text)		Not developed	at the end of second year of implementation (September 2024), the framework and platform of carbon emission accounting and reporting system developed		Carbon emission accounting and reporting platform implemented in 1-to-2 pilot cities, with aggregate level data published
Jiangsu: Publication of near zero emission strategy for Yancheng Port (Yes/No)		No			Yes

RESULT_FRAME_TBL_IO

Indicator Name	PBC	Baseline	Intermediate Targets		End Target
			1	2	
Jiangsu: Development of green mobility indicators and monitoring system for the entire province (Text)		Not developed	at the end of second year of research on green mobility indicators and monitoring system completed		Successful pilot implementation Jiangsu
3. Capacity Building					
Number of workshops and conferences (Number)		0.00			10.00
conferences (Number)		0.00			4.00
workshops (Number)		0.00			6.00
Number of beneficiaries of training and knowledge exchange programs (Number)		0.00			1,000.00
of which female (Number)		0.00			400.00
Female participants in stakeholder consultations, policy planning workshops or decision making meetings on decarbonization (Percentage)		0.00			40.00

UL Table SPACE

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
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<p>Number of roadmaps for decarbonizing transport that integrate adequate gender and disability considerations</p>	<p>Number of roadmaps that have been fully developed and adopted by relevant departments for implementation</p> <p>Ministry of Transport</p> <p>Transport Departments and/or DRC under each pilot provincial government</p> <p>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</p>	<p>Annually</p>	<p>Publication/ dissemination of relevant official documents</p>	<p>PMOs to monitor publication and dissemination of relevant official documents and to document the approval of the same</p>	<p>NPMO and PMOs</p>
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<p>Adoption of technical guidelines on emerging technologies for decarbonizing road and waterborne transport</p>	<p>Related policy documents, regulations, standards, guidelines, and planning documents issued by MOT, relevant line ministries, local governments, industry associations, or other authorities, as appropriate.</p> <p>The preliminary list of technical guides that would be adopted include:</p> <p>i) carbon emission accounting standard for highway construction; ii) clean energy inland waterway vessels standard or technical guides; iii) life-cycle carbon emission accounting guides for inland waterway; and iv) technical guide for hydrogen fuel cell bus applications. The above list may be revised during implementation considering demand for various technologies and implementation progress.</p>	<p>Annually</p>	<p>1) Official websites of MOT, relevant line ministries, local governments, industry associations, or other authorities; 2) Copies of the documents with authorized stamps.</p>	<p>NPMO to track the online publication and archive the copies.</p>	<p>NPMO and PMOs</p>
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<p>Number of decarbonization projects that apply emerging technologies identified in the selected provinces</p>	<p>Through the pilot projects supported under the project, it is expected that the pilot provinces would gain sufficient experience and lessons, based on which they can identify priority projects that utilize the emerging technologies piloted.</p>	<p>Every two years</p>	<p>Progress report from NPMO</p>	<p>NPMO and PMOs will request the relevant government departments to submit a consolidated list of projects.</p>	<p>NPMO, PMOs, and M&E consultant</p>
<p>Non-government investments mobilized for low- or zero-carbon transport vehicles and facilities in pilot project areas, benefited from the policies and technical support under the project(US\$ million)</p>	<p>The policy development and TA activities under the project are expected to improve the commercial viability of investments in low- or zero-carbon transport. This would result in increased commercial financing and non-government investments in low/zero-carbon vehicles and facilities in pilot project areas across the three provinces, such as fuel-cell electric vehicles for passenger and freight transport, vehicles and infrastructure for integrated rural-urban electric transport, and electric waterway vessels. Only such investments that directly benefited from the TA activities and policies developed under the project will be considered.</p>	<p>Every two years</p>	<p>Progress report by NPMO with data and reporting by provincial PMOs</p>	<p>The provincial PMOs, in collaboration with relevant municipalities, Shandong Port, and Yancheng Port, will track relevant investments made in the pilot areas, which will be aggregated by NPMO for final reporting. The investments will be verified during regular supervision and implementation support missions.</p>	<p>NPMO, PMOs, and M&E consultant</p>

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Policies and technical guidelines for innovative technologies for decarbonizing transport drafted	Number of policy documents, regulations, standards, guidelines, and planning documents drafted and incorporated comments from consultation with key stakeholders, including MOT, relevant line ministries, and local governments	Annually	1) Copies of the draft documents; 2) proofs of consultation meetings	NPMO to obtain and track the copies of draft documents and proofs of consultation meetings and archive the copies.	NPMO and PMOs
Research report on transport sector decarbonization towards carbon neutrality (2030-2060)	A comprehensive report that compiles peer-reviewed studies on various sub-sectors and decarbonization technologies is published, with endorsement by MOT. The report would include studies on road freight transport, waterborne transport, private vehicles, intermodal transport, incentives for transport user behaviors and choices, and any other relevant areas, and would provide inputs towards a strategy for decarbonizing transport towards carbon neutrality by 2060.	Annually	MOT provide stamped letter to certify the findings of the publications informed policy making and strategy setting for transport sector decarbonization towards carbon neutrality (2030-2060?)	NPMO to obtain and track the copies of publications.	NPMO and PMOs
Development and pilot application of a carbon emission accounting and monitoring for transport sector	It includes 1) establishment of methodology and data collection protocols; 2) prototype of software system; 3) development of carbon emission data accounting guidelines; and 4) pilot application in a selected province or city	Annually	Progress report from NPMO	NPMO to track the milestones of the consultant and developer engaged to perform the task	???????NPMO

Shandong: Development of technical guides on hydrogen fuel cell bus operation	One local technical guide on hydrogen fuel cell bus operation, drafted and published by a relevant local authority	Achievement of target confirmed at the end of the project, annual monitoring of progress	1) Copy of the draft documents; 2) proof of consultation meetings	The Shandong PMO will track the progress and obtain the records.	Shandong PMO
Shandong: Development of zero-emission strategy for Shandong Ports	A zero-emission strategy for Shandong Ports operation drafted and published	Achievement of target confirmed at the end of the project, annual monitoring of progress	1) Copy of the draft documents; 2) proof of consultation meetings; 3) Copies of the documents with authorized stamps	1) Copy of the draft documents; 2) proof of consultation meetings; 3) Copies of the documents with authorized stamps	Shandong PMO
Shandong: Development of a technical guide on new energy vessels	One local technical guide on new energy vessels drafted and published	Achievement of target confirmed at the end of the project, annual monitoring of progress	1) Copy of the draft and published documents; 2) proof of consultation meetings	Shandong PMO will track the progress and obtain the records.	Shandong PMO
Henan: Development of operating plans for rural-urban integrated electric mobility and logistics services	Three operating plans for rural-urban integrated electric mobility and logistics service for Yongcheng, Xin and Xun Counties, respectively, are developed and being implemented in daily operations in Yongcheng, Xin and Xun Counties	Achievement of target confirmed at the end of the project, annual monitoring of progress	1) Copy of the draft documents; 2) proof of consultation meetings; 3) self-reporting from operators? transaction records	Henan PMO will collect data from Yongcheng, Xin and Xun Counties	Henan PMO

Henan: Proof of concept for near-zero emission bus depots and terminals	Research carried out for proof of concept for near-zero emission bus depots and terminals to inform project identification	Achievement of target confirmed at the end of the project, annual monitoring of progress	1) Copy of the draft documents; 2) proof of consultation meetings	The Henan PMO will track the progress	Henan PMO
Jiangsu: Development and pilot application of a provincial level carbon emission accounting and reporting system	Carbon emission accounting and reporting system	Achievement of target confirmed at the end of the project, annual monitoring of progress	1) Copy of the draft documents; 2) proof of consultation meetings	Jiangsu PMO will track the progress	Jiangsu PMO
Jiangsu: Publication of near zero emission strategy for Yancheng Port	A near-zero emission strategy for Yancheng Port is developed and published	Achievement of target confirmed at the end of the project, annual monitoring of progress	1) Copy of the draft documents; 2) proof of consultation meetings; 3) Copies of the documents with authorized stamps	Jiangsu PMO will track the progress.	Jiangsu PMO
Jiangsu: Development of green mobility indicators and monitoring system for the entire province	Development of a province-wide green mobility indicators and monitoring system, and pilot application in Jiangsu province	Annually	1) Copy of the draft documents; 2) proof of consultation meetings	??????Jiangsu PMO will track the progress.	Jiangsu PMO
Number of workshops and conferences	The number of workshops and conferences financed or co-financed by the GEF project	Annually one for each year	Progress report from NPMO and PMOs	NPMO and PMOs will track the number of workshop and conferences	NPMO and PMOs
conferences					

workshops					
Number of beneficiaries of training and knowledge exchange programs	The number of beneficiaries would be disaggregated by 1) beneficiaries from MOT and pilot cities; 2) beneficiaries from other cities and line ministries? ³ Beneficiaries can be online or on-site of training and knowledge exchange	Annually	NPMO and PMOs	NPMO and PMOs will track the number of beneficiaries by maintaining the list of participants	NPMO and PMOs
of which female	The number of female beneficiaries would be disaggregated by 1) female beneficiaries from MOT and pilot cities; 2) female beneficiaries from other cities and line ministries? ³ Female beneficiaries can be online or on-site of training and knowledge exchange	Annually	NPMO and PMOs	NPMO and PMOs will track the number of female beneficiaries by maintaining the list of participants	NPMO/PMOs
Female participants in stakeholder consultations, policy planning workshops or decision making meetings on decarbonization	The number of female participants in the stakeholder consultation, policy planning workshops, or decision meetings on decarbonization	Annually	PMO and PMOs	NPMO and PMOs will track the number of stakeholders consulted	PMO and PMOs

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Annex B: Response to Project Reviews

Reviewers? Comments	Reviewer	Team Responses
Project Development Objective		

<p>This project targets the most rapidly growing carbon emissions sector in China ? transport ? with a comprehensive set of strategies in four components focusing on rural-urban connectivity in under-served areas. The project has considered GEF additionality in considerable detail and has also laid out a succinct theory of change which also links to the IBRD program for Results (PforR) operation ?Green Mobility for City Clusters.?</p>	<p>STAP</p> <p>Agreed with the statement. In addition to the rural-urban connectivity in under-served areas, the project supports activities to pilot near-zero emission port operation, inland waterway transport, application of clean energy in transport such as green hydrogen, and establishment of policy framework and MRV system.</p>
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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

Canada

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

<p>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.</p>	<p>Germ any</p>	<p>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 and urban transport. The PAD provides the project's potential for contributing to job creation in relevant sectors and industries. A sentence is included in para 34 to specify that during preparation of the national and provincial roadmaps, job creation potential in related green industries will be assessed.</p>
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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

Norway/
Denmark

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.

Project Component

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).

STAP

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.

An innovative aspect of this project is the green hydrogen production for Jiangyin port, and connecting this to other upscaling opportunities across the project would be valuable. Linkages between this effort and Qingzhou Port Guangxi province in terms of comparative lessons would be useful.

STAP

Although the Ministry of Transport could not receive specific proposal from Guangxi Province and Qingzhou port, the project includes activities in Shandong and Jiangsu Provinces, which would utilize clean energy sources for port operation and provide hydrogen-based ground transportation solutions. Additionally, piloting of clean energy technologies for inland waterway vessels has been included under the Shandong component.

<p>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/)</p>	<p>STAP</p>	<p>The team appreciates the recommendation. The GTI has been removed from the project scope based on advice provided by the GEF Secretariat. The client agreed to fund these activities from their own sources.</p>
<p>Another valuable feature of this project is the development of a life-cycle carbon footprint accounting mechanism for transport (noted in subcomponent 1-C). Proponents are recommended to consider the industrial ecology literature in this regard, such as the article by Lei, Sheng Zhou, and Xunmin Ou. "Life-Cycle Energy Consumption and Greenhouse-Gas Emissions of Hydrogen Supply Chains for FuelCell Vehicles in China." Energy (Oxford) 209 (2020): 118482-. https://doi.org/10.1016/j.energy.2020.118482.</p>	<p>STAP</p>	<p>The team appreciates the recommendation. The recommended literature, as well as other relevant work, will be considered during the development of the life-cycle carbon footprint accounting mechanism.</p>

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.

STAP 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.

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.

Germany

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

Component 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.

Germany

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 look at the financial viability of various low-emission transport options, including FCEV buses, inland waterway vessel improvement, and other green transport investments.

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

Component 2C:

The carbon financing feature of the project in Subcomponent 2C for Jiangsu province to develop a zero-emissions port is another key feature of this project which has potential for upscaling and should consider interface with work being done in this regard by Green Finance Platform (<https://www.greenfinanceplatform.org/organization/global-green-growth-institute-gggi>). A useful recent study from China in this regard concerning private sector venture capital engagement (which should be considered in the partnerships) is: Cheng, Cheng, Yue Hua, and Duoduo Tan. "Spatial Dynamics and Determinants of Sustainable Finance: Evidence from Venture Capital Investment in China." *Journal of Cleaner Production* 232 (2019): 1148-1157. <https://doi.org/10.1016/j.jclepro.2019.05.360>

STAP

The team appreciates the recommendation. These relevant developments and in green financing / capital markets and the role of private sector will be considered in implementation of the pilot projects.

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>).

STAP

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

<p>Component 3: A major component for achieving the project's goal relies on the capacity building for transparency, when it comes to monitoring emission reductions. Indeed, establishing an Enhanced Transparency Framework that provides a clear understanding of the actions taken and their impact on climate change, in light of Article 13 of the Paris Agreement, will be essential for tracking progress</p>	Canada	Thank you for the recommendation. Indeed, the project aims to develop a transparent, rigorous, and consistent framework, based on which the impacts of decarbonization measures can be clearly assessed.
<p>Component 4: Germany comments: Germany suggests that knowledge management will be included as an output in component 4. This will ensure a greater replicability and scalability of the project and pilots.</p>	Germany	As suggested, knowledge management is included in Component 4.

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.

Germ
any

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

Results Chain		
<p>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.</p>	<p>Norway/ Denmark</p>	<p>The project descriptions, including the specific of pilot implementation is provided in the PAD. See in particular PAD paras 21-31 (component, activity descriptions, and geographical areas), and paras 39-40 and Section VII (outcomes, results framework and monitoring)..</p>
Rationale for Bank Involvement and Role of Partners		
<p>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.</p>	<p>Germany</p>	<p>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 47 of the PAD.</p>

<p>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</p>	<p>Norway/ Denmark</p>	<p>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 47 of the PAD.</p>
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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.

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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.

Mobilizing private sector investment is one of the key outcomes of this project, and in order to demonstrate the commitment of MOT and pilot

Environmental and Social

A comprehensive analysis of environmental and social risk was presented, highlighting the potential impacts of the project. The risk of the project increasing energy consumption, thereby contributing to greenhouse gas emission, was also noted under climate change risk, including mitigation measures by aligning with a counterpart GEF project. However, analysis of risks associated with the impact of climate change on the planned interventions, for example, on infrastructure, is yet to be carried out. Given the substantial possible implications of climate change on transportation infrastructure in China (see example publications on these below), it is essential to conduct a detailed climate risk screening. The World Bank Climate and Disaster Risk Screening Tool (<https://climatescreeningtools.worldbank.org/>) could be an excellent resource in this regard.

? Yong-Jian Ding, et al., 2021. An overview of climate change impacts on the society in China. *Advances in Climate Change Research*, 12, 210-223, <https://doi.org/10.1016/j.accre.2021.03.002>.

? IPCC 2014. Asia. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.*

https://www.ipcc.ch/site/assets/uploads/2018/02/WGIAR5-Chap24_FINAL.pdf

? Xi, H. 2016. How Climate Change Threatens China's Essential Infrastructure. <https://thediplomat.com/2016/04/how-climatechange-threatens-chinas-essential-infrastructure/>

? Regmi and Hanaoka, Impacts of Climate Change on Transport and Adaptation in Asia. https://www.researchgate.net/publication/228888356_Impacts_of_Climate_Change_on_Transport_and_Adaptation_in_Asia

STAP

Thank you for the information. The Climate Risk Screening has been updated and presented in the PAD.

Key risks

<p>We take note of several identified risks being classified as substantial. We agree with this assessment and would both like to commend project partners for being open about their risk assessment and stress that there is a strong need to focus on risk mitigation throughout the further development and implementation of the project. At the same time, we find that the strong need for addressing emissions in the transport sector in China, as well as the possible project results, in particular if the emissions peak in the transport sector can be achieved earlier, justify the identified risks.</p>	<p>Norway/ Denmark</p>	<p>Some risks earlier classified as Substantial has now been downgraded to Moderate after further firming up of the project scope as well as detailed review and discussion with the clients. Specifically, fiduciary and project implementation risks are expected to be moderate, which led to downgrading of the overall project risk to Moderate. The risk description section has been updated accordingly.</p>
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**ANNEX C: Status of Utilization of Project Preparation Grant (PPG).
(Provide detailed funding amount of the PPG activities financing status
in the table below:**

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

The project will have national-level TA that cover the entire China. The project will also have three pilot provinces, namely Jiangsu Province, Henan Province, and Shandong Province.

Jiangsu (Yancheng Port): 33.4106° N, 120.1495° E

Henan

- Xin County: 31.6439° N, 114.8793° E

- Xun County: 35.6762° N, 114.5508° E

- Yongcheng: 33.9291° N, 116.4495° E

Shandong (Jinan) :36.6518° N, 117.1201° E



ANNEX E: Project Budget Table

Please attach a project budget table.

Annex A: Indicative Project Budget Template - PATHWAYS FOR DECARBONIZING TRANSPORT TOWARDS CARBON NEUTRALITY IN CHINA

Expenditure Category	Component (US\$ million)					Sub-Total
	Component 1 National Roadmap and Policy Framework towards Carbon Neutrality	Component 2 Pilot Implementation towards Transport Carbon Peaking and Neutrality in Selected Provinces			Component 3 Capacity Building	
		Shandong	Henan	Jiangsu		
	Outcomes: (i) National roadmap established to decarbonize transport towards carbon neutrality; (ii) Policy framework for innovation and scale-up of clean energy in transport enhanced	Outcomes: (i) Sub-national roadmaps established to decarbonize transport towards carbon neutrality; (ii) Emerging technologies piloted in selected provinces; (iii) Non-government investments mobilized for low- or zero-carbon transport vehicles and facilities in pilot project areas			Outcome: Improved knowledge and capacity on transport decarbonization	
Contractual Services – Individual M&E and project management: Technical experts for quality control of outputs (\$0.15M), Procurement specialist (\$0.12M), Financial management specialist (\$0.1M), Environment specialist (\$0.07M), social specialist (\$0.07M), translators and interpreters (\$0.03M), add'l project management support (\$0.02M)						
Contractual Services – Company*						
Sub-component 1A: Decarbonization scenarios and trajectories during 2022-2060, covering the entire transport sector (\$0.6M); assessment of costs under various decarbonization scenarios (\$0.1M); roadmap of policies and investments to decarbonize transport (\$0.7M)	1.20					
Sub-component 1B: Decarbonization policies and technical standards for roads and waterways (\$1.15M), Multi-modal decarbonization policies and technical standards (\$0.29M)	1.44					
Sub-Component 1C: Development and pilot application of a carbon emission accounting and monitoring for transport sector at the national level (\$0.8M)	0.80					
Sub-Component 2A: Shandong Province roadmap (\$0.6M), Near-zero emission strategy for Shandong Ports (\$0.4M), Clean energy vessel innovation (\$0.5M), Technical guides on hydrogen fuel cell vehicle application (\$0.5M)		2.00				
Sub-Component 2B: Henan Province roadmap (\$0.55M), Deep decarbonization of integrated rural-urban electric transport (\$0.71M), Near-zero emission bus depots and terminals (\$0.29M)			1.55			
Sub-Component 2C: Jiangsu Province roadmap (\$0.8M), Green mobility platform (\$0.75M), zero-emission port pilot (\$0.55M)				2.10		
Beneficiary surveys, mid and end of project reviews						
Trainings, Workshops, Meetings 10 Knowledge exchange and dissemination events, conferences, workshops, trainings; M&E quality review meetings						0.20
Grand Total	3.44	2.00	1.55	2.10	0.20	0.00
*Includes both local and international consultants hired under firm contracts.						

***M&E Budget Breakdown		Project Management Cost Contractual Services (Indicative at CEO Submissio	
Spending Category	GEF Grant (US\$)	Spending Category	GEF Grant (US\$)
Technical experts for quality control	\$150,000	Procurement Specialist	\$120,000
Quality review meetings	\$51,743	Financial Management Specialist	\$100,000
Beneficiary surveys, mid and end of project reviews	\$200,000	Environment Management Specialist	\$70,000
Sub-Total	\$401,743	Social Specialist	\$70,000
		Translation and Interpretation	\$30,000
		Add'l project management support (contingency)	\$20,000
		Sub-Total	\$400,000

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencies is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).