Approved Project Preparation Funding Application

<table>
<thead>
<tr>
<th>Application Title</th>
<th>Integrated Sustainable Bus Rapid Transit Development in Semarang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country/ Region</td>
<td>Indonesia</td>
</tr>
<tr>
<td>Accredited Entity</td>
<td>PT Sarana Multi Infrastruktur (Persero)</td>
</tr>
<tr>
<td>Approval Date</td>
<td>28 November 2018</td>
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## Request for Support from the Project Preparation Facility (PPF)

<table>
<thead>
<tr>
<th>Application Title</th>
<th>Integrated Sustainable Bus Rapid Transit Development in Semarang</th>
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<tbody>
<tr>
<td>Country(ies)</td>
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<td>PT Sarana Multi Infrastruktur (Persero)</td>
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<tr>
<td>Date of first submission/ Version number</td>
<td>2018 – 03 – 19 V0</td>
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<tr>
<td>Date of current submission/ version number</td>
<td>2018 – 11 - 05 V.4</td>
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</tbody>
</table>

Please submit the completed form to [ppf@gcfund.org](mailto:ppf@gcfund.org), using the following naming convention in the subject line and the file name:

“PPF-[Accredited Entity]-[Country]-yyyymmdd”
## Notes

- The PPF supports the development of projects and programmes and enhance their quality at entry into the Fund’s pipeline. With a view to enhancing the balance and diversity of the project pipeline, the PPF is designed to especially support Direct Access Entities for projects in the micro-to-small size category. International Accredited Entities seeking project preparation support from the PPF are encouraged to do so especially for LDCs, SIDS and African countries where no Direct Access Entity is accredited. All Accredited Entities are encouraged to articulate counterpart support for project preparation within their requests for support from the PPF.

- A PPF submission should include below documents:
  1. PPF request (this form)
  2. PPF No-Objection letter¹
  3. Concept Note

- Please copy the National Designated Authority (ies) when submitting this PPF request.

- Requests for support from the PPF should be submitted at the same time or following submission of a GCF Concept Note for a project or programme.

- Further information on GCF PPF can be found on GCF website [Project Preparation Facility Guidelines](#).

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¹ Please note that the PPF No-Objection Letter is different from the Funding Proposal No-Objection Letter. PPF No-Objection Letter template can be downloaded from [here](#).
A. Executive Summary

Accredited Entity (AE) | Name: Adi Pranasatrya | Position: Sustainable Financing Division Head | Email: adi@ptsmi.co.id | Tel: +62 21 8082 5288 | Full Office address: Sahid Sudirman Center, 47-48 floor, Jl. Jenderal Sudirman No.86 Jakarta-10220, Indonesia
---|---|---|---|---|---
Has a Concept Note\(^2\) been submitted in association with this request for support from the PPF? | Yes ☒ No ☐
Has a No-Objection Letter\(^3\) been submitted for this request for support from the PPF? | Yes ☒ No ☐
(Please note that a PPF No-Objection Letter is a requirement for the submission of this request)

Total Cost

| Total cost of Project Preparation activities: US$ 1,258,000 |
| Amount requested from the PPF: US$ 788,000 |
| Counterpart funding from other sources: US$ 470,000 |

Anticipated Duration

| Number of months to implement the Project Preparation activities: 18 months |

Summary of the request for Project Preparation support

Lack of sustainable urban transport implementation is an important problem in most cities in Indonesia including Semarang. Based on the latest survey in August 2017, public transport only served 20% of total transportation demand. The city government commits to improve integrated public transport service by a BRT system as reflected in its City Mid-Term Development Plan (RPJMD).

PT SMI aims to support The Government of Semarang (GoS) to increase the quality of public transport. Supported by GIZ Indonesia, PT SMI prepares a PPF proposal in integrated sustainable BRT System Development in Semarang to be submitted to GCF. The underlying project includes the construction of infrastructure for BRT (dedicated laneway, bus station, pedestrian area, BRT access), development of intelligent transportation system, integrated payment system, feeder routes as well Non-motorized transport improvement (pedestrian facility, bicycle facility provision) and introduction of transport demand management measures to encourage people choosing public transport.

In the project preparation phase, PT SMI will assist Semarang to develop feasibility study which consists of technical, financial, economic and operational aspect; assessment of bus technology to further reduce GHG emission, development of policies and measures to encourage passengers shifting to public transport, legal and regulation review, environmental and social impact assessment, land acquisition and resettlement action plan, gender analysis, risk analysis as well as stakeholder management for the implementation of full BRT system in Semarang, which includes not only the infrastructure but also intelligent transportation system, fare collecting system as well non-motorized transport improvement. The project preparation will also develop the funding structure of the project. The output of the project preparation is a good quality studies which will be ready to be taken into implementation phase. This project preparation will also result in a funding proposal which meets GCF criteria as this project is foreseen to be co-financed by GCF and other different funding sources such as PT SMI, NAMA Facility (operated by GIZ) and government budget (national and sub-national) in order to achieve the leveraging impact.

B. Description of Project Preparation Activities

Outputs and Activities | Month
---|---
(Please shade the implementation period from the starting month of the Output and Activity in the schedule. Please also indicate the

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\(^2\) See [here](#) to download the Concept Note template.
\(^3\) Template for PPF No-Objection Letter can be downloaded [here](#).
The PPF can provide support within the following project preparation activity areas:

i. Pre-feasibility and feasibility studies

ii. Environmental, social and gender studies

iii. Risk Assessments

iv. Identification of programme and project level indicators

Other activities of direct relevance for Direct Access Entities that the PPF can support are as follows:

v. Pre-contract services, including the revision of tender documents

vi. Advisory services and/or other services to financially structure a proposed activity

vii. Other project preparation activities, where necessary, and with sufficient justification
and an upgraded bus depot, analysis and forecasting of GHG emissions reduction, planning for traffic management and road safety measures to support implementation, operations and maintenance planning, and financial planning. Extensive public consultations will accompany tasks under this activity.

- Technical preparations for Non-motorized Transport Services. This activity will prepare for non-motorized transport services, including: development of preliminary designs for pedestrian, bicycle ways, and e-bicycles to support initial public consultations; development of advanced engineering designs for works; and budgeting and planning for the execution of works. Extensive public consultation will accompany this activity.

- Technical preparations for low or zero-emission public transport mobility. This activity will explore policies and infrastructure needed to create a favourable and enabling environment for low emission buses including: technical preparations and surveys for specification of low emission vehicles in public transport and public sector fleets; assessment of infrastructure and operation and maintenance; and institutional development plan for the mass transit bus sector. Extensive public consultation will accompany tasks under this activity.

- Policy development to introduce transport demand management measures to encourage shifting to BRT, which might include stricter parking policy on tariff and zoning, road pricing, low-emission zone, as well license plate restriction, amongst others.

3. Legal and regulation study. Review on legal and regulation aspects will cover but not limited to evaluation of national and local development plan including budgeting, analysis of the existing City Spatial Plan, evaluation of sectoral and cross sectoral regulations at national and local level, evaluation of project jurisdiction, analysis of regulatory framework of project preparation and implementation, review on regulations related to BRT project investment. review on relevant regulations on contractual and procurement.

Output:
1. Pre-feasibility study
2. Feasibility study (full BRT system, low emission integrated mass transit plan, low carbon transport program investment, non-motorized transport services, low or zero emission public transport mobility, transport demand management measures)
3. Legal and regulation study.

**Activity and deliverable 2:**
PPF activity area: Environmental, social and gender studies

Environmental and social impact assessment (ESIA) will be started by scoping project activities which is used to identify key issues of concern at an early stage, to identify all affected interests and to determine assessment methods. After scoping is done, series of activities will be conducted such as baseline data collection, impact analysis and prediction, analysis of alternatives for minimizing environmental and social impacts, preparation of mitigation measures and impact management, formulation of environmental management plan and preparation of environmental monitoring plan. In addition, the ESIA will also quantify the GHG emission reduction and sustainable development impacts of the project. All processes in ESIA will be disseminated through series of affected stakeholders’ meeting and public consultation. Furthermore, the document should be approved by local EIA Committee. The final ESIA documentation will be disclosed afterwards as early as possible.

Land Acquisition and Resettlement Action Plan (LARAP) is prepared to address possibilities of land acquisition or restrictions on land use or involuntary resettlement impacts from BRT development project in Semarang. The objectives of the LARAP are to achieve ‘resettlement with development’ and thereby ensure that resettled households achieve better livelihoods than they would have if resettlement had not taken place. Pre-screening will be conducted by identifying the number and other detail information of potential physical displacement (loss of residential land, loss of shelter) or economic displacement (loss of land, assets or access to assets, income sources, or another livelihood), or both. The LARAP document will be used to address land acquisition or restrictions on land use or involuntary resettlement if any by several options such as compensation to replace lost assets, livelihood and income; assistance for relocation, including the provision of relocation sites with appropriate facilities and services; and assistance for rehabilitation to achieve at least the same level of well-being with the project as without it. LARAP preparation process will also be disseminated in series of stakeholder and public consultations. All consultations record will be maintained transparently, and appropriate grievance redress mechanisms are put in place.
Related to cultural heritage management, a chance find procedure will be followed throughout the construction phase. Where there is evidence or high probability of cultural heritage, PT SMI will consult with cultural heritage experts to determine ownership and custodial responsibility in relevance with national and local law.

Gender analysis aims at closing gender gaps and promoting gender mainstreaming initiatives in the project planning phase to achieve a sustainable BRT project in Semarang. The objectives of the gender analysis are to undertake an analysis to better understand the gender dynamics; to identify, analyse and examine gendered vulnerabilities and underlying structural norms that affect the project; to explore the gendered power relations between men and women and differences in their access to resources, priorities, needs, activities and constraints that they face in relation to each other; and to identify existing policies, structures and practices that promote gender equality related to BRT development project. The updated documentation will be disclosed promptly.

Output:
Environmental and Social Impact Assessment
a. Environmental Impact Assessment
b. Environmental Management Plan
c. Public consultation
d. Stakeholders’ meeting
e. UKL – UPL
f. Land Acquisition and Resettlement Action Plan:
   - Land Acquisition Plan
   - Location approval from Government

Gender analysis:
 a. Gender study
 b. Gender perception of the development of BRT

**Activity and deliverable 3:**
PPF activity area: Risk assessment
This activity will conduct risk analysis which includes risk identification, risk management strategies and mitigation, as well as the climate risk and vulnerability assessment of this project and possible adaptation measures.

**Activity and deliverable 4:**
PPF activity area: Other project preparation activities
Stakeholder management and coordination. The stakeholder management activity will include the stakeholder mapping, development of stakeholder
engagement plan, stakeholder analysis, and institutional recommendation.

This activity will be started with a stakeholder mapping for the BRT system in Semarang. The stakeholders that will be identified will be wide-ranging and relative to project management, such as from the Local Transportation Agency, Public Work Agency, Spatial Planning Agency, Local Investment Board, City Transportation Private Owners, Communities, etc. This activity will be from Month 1 to Month 18.

Activity 2 (environmental, social, and gender studies) will be from Month 7 to Month 15. On the Activity 2, the stakeholder that are related with safeguards, gender, and vulnerable people will be identified in detail. For Activity 2, the stakeholders will include all group of people and communities that are impacted by the project which should be involved and consulted. It includes direct impacted communities, local NGO, and academia.

The consultant in Activity 2 should have specific expertise in the ESS and gender topic whereas for the Activity 4, the institutional and stakeholder analysis expertise is needed. Both consultants will work in coordination to avoid data mismatch and duplication.

<table>
<thead>
<tr>
<th>Estimated time for submission corresponding full Funding Proposal to the GCF</th>
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<td>x x x x x x x x x x x x x x x x x x</td>
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C. Justification of the Project Preparation Request

The BRT system development in Semarang is an important project that is in line with priorities of the Government of Indonesia to reduce GHG emission in transport sector. As described in the Concept Note, this project is part of a bigger transportation plan for the city of Semarang. However, this project needs more detailed study and assessment to be able to advance further into the Funding Proposal with good quality. The Project Preparation Facility is an essential factor for the development of the Funding Proposal. The PPF will enable this project to deliver a Funding Proposal which meets GCF criteria and to ensure that it can achieve the desired impact for climate change mitigation. The PPF will result in BRT project for Semarang city that will enhance the development of BRT and promote low-emission transport, where at the same time also promote a comprehensive approach towards development of sustainable transport, which includes improvement walking and cycling facility, introduction of stricter restriction on private vehicle use, as well as development of policy with transit-oriented approach. The implementation of a comprehensive sustainable BRT system will lead to a significant transformational change in urban transport in Semarang, particularly in transport modality from private vehicles to public transport system. Further, it will not only benefit in reducing GHG emissions, but also will generate other socio-economics benefits and environmental benefits for various stakeholders including women as well as most vulnerable people and communities, which includes the creation of more than 2000 jobs, reducing travel time and ensuring safety on roads. In the long run, the operation of reliable public transport, along with good walking and cycling facility and tighter transport management measures will encourage people to use public transport rather than private cars or motorbikes, reducing road congestion, that also leads to better air quality. In addition, the development of integrated sustainable BRT in Semarang can be used as a pilot project of a full BRT system, and become reference on approach to develop integrated sustainable public transport improvement, which will be replicated in other metropolitan cities in Indonesia. The project fits with roles of PT SMI in accelerating infrastructure development across the country. This background fits very well with GCF vision.

SUTRI NAMA – INDOBUS is a national programme which consist of the Sustainable Urban Transport Programme (SUTRI NAMA), the first Nationally Appropriate Mitigation Action (NAMA) registered by the Government of Indonesia to the UNFCCC and Indonesian Bus Rapid Transit Corridor Development Project (INDOBUS) which is funded by the State Secretariat for Economic Affairs of Switzerland (SECO). The programme is aimed to reduce GHG emission by enhancing public transport role as the backbone for urban mobility and implement the fully pledged BRT system in
selected Indonesian cities. This programme is delivered by GIZ with a partnership with Ministry of Transportation Indonesia. Semarang will be the first city where SUTRI NAMA – INDOBUS will be implemented. The selection of Semarang further emphasizes the alignment of this proposed project with the national priority.

The total cost of this project preparation is estimated at 1.258 million USD. SUTRI NAMA – INDOBUS will provide 300.000 USD in kind contribution to the project preparation phase of this proposed project particularly for the pre-feasibility study, legal and regulation review, gender analysis, stakeholder analysis and management, and risk analysis activities, and PT SMI will request 788.000 USD to GCF through the Project Preparation Facility for preparing the feasibility study covering technical, financial, and operational aspects including assessment of bus technology, development of low emission integrated mass transit plan, technical preparation low carbon transport program investment, non motorized transport services, low or zero public transport mobility, legal and regulation review, environmental and social impact assessment, gender analysis, and land acquisition and resettlement action plan. In addition, the Government of Semarang will also provide 170.000 USD in kind contribution.

D. Implementation Arrangement

PT SMI will lead the implementation for the PPF and conduct procurement for consultants to provide the studies needed in the project preparation phase. As the implementing entity of the PPF, PT SMI will also be responsible project and financial management, as well as monitoring and reporting to GCF. For activities proposed in the PPF application, different consultancy firm(s) will be hired, and the procurement process will be in accordance with PT SMI's procurement guidelines to ensure that the outputs will be of high quality.

The project documents, that will be produced in the preparation phase, cover but not limited to feasibility study, transport demand management policy development, legal and regulation review, study, environmental and social impact assessment, gender analysis, land acquisition and resettlement plan, and risk analysis. Coordination and stakeholder management activities will be conducted along the project implementation for achieving the maximum level of acknowledgement, involvement and participation of relevant government and non-government stakeholders.

The project implementation approach will consist of:

- Project initiation to build up leadership and commitment at local government level;
- Vertical coordination to establish a good coordination among different levels of government (national, provincial and local levels);
- Stakeholder consultation for achieving involvement and participation of relevant stakeholders;
- Alignment of National and Sub-National general and sectoral policies;
- Bottom up need assessment to analyse demand for BRT (estimate size of demand to match system characteristic to customer needs, existing transport and travel characteristic, socio economic situation, gender study);
- Review of city spatial plan and analysis for selecting a priority of BRT lane;
- Development of planning and draft policy documents by contracting credible service providers and experts through a transparent procurement process;
- Communications (share the proper flow of information to key stakeholders to avoid misunderstanding and misconception; to anticipate project hinder by affected and threatened organization or individual);
- Public consultation in BRT project design (network and roadway, public transport corridor data, vehicle, services and operations, terminal, feeder network and infrastructure, depot);
- Preparation of an implementation plan (regulatory framework, project structure, implementation organization, institutional arrangements for operation, management and maintenance, marketing strategy, arrangement for interagency coordination, stakeholder consultation, implementation schedule).
E. Budget Details and Disbursement Schedule

Detailed budget was removed due to confidential information

5 "Sub-total cost" must be provided for each activity, and broken down by the “cost categories” (e.g. Consultants, Travel, Equipment, Training & workshops, Others). Please provide sufficient breakdown of costs to enable effective review.
Concept Note

Project/Programme Title: Bus Rapid Transit Development in Semarang

Country(ies): Indonesia


Accredited Entity(ies) (AE): PT Sarana Multi Infrastruktur (Persero)

Date of first submission/version number: 2018-03-19 V.0

Date of current submission/version number: 2018-08-20 V.1
Notes

- The maximum number of pages should **not exceed 12 pages**, excluding annexes. Proposals exceeding the prescribed length will not be assessed within the indicative service standard time of 30 days.
- As per the Information Disclosure Policy, the concept note, and additional documents provided to the Secretariat can be disclosed unless marked by the Accredited Entity(ies) (or NDAs) as confidential.
- The relevant National Designated Authority(ies) will be informed by the Secretariat of the concept note upon receipt.
- NDA can also submit the concept note directly with or without an identified accredited entity at this stage. In this case, they can leave blank the section related to the accredited entity. The Secretariat will inform the accredited entity(ies) nominated by the NDA, if any.
- Accredited Entities and/or NDAs are encouraged to submit a Concept Note before making a request for project preparation support from the Project Preparation Facility (PPF).
- Further information on GCF concept note preparation can be found on GCF website **Funding Projects Fine Print**.
## A. Project/Programme Summary (max. 1 page)

<table>
<thead>
<tr>
<th>A.1. Project or programme</th>
<th>☒ Project</th>
<th>☐ Programme</th>
<th>A.2. Public or private sector</th>
<th>☒ Public sector</th>
<th>☐ Private sector</th>
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</thead>
<tbody>
<tr>
<td>A.3. Is the CN submitted in response to an RFP?</td>
<td>Yes ☐ No ☒</td>
<td>☐</td>
<td>A.4. Confidentiality¹</td>
<td>☒ Confidential</td>
<td>☐ Not confidential</td>
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<tr>
<td>A.5. Indicate the result areas for the project/programme</td>
<td>Mitigation: Reduced emissions from:</td>
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<td></td>
<td>☐ Energy access and power generation</td>
<td>☒ Low emission transport</td>
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<td></td>
<td>☐ Buildings, cities and industries and appliances</td>
<td>☐ Forestry and land use</td>
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<td>☐ Infrastructure and built environment</td>
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<td>☐ Ecosystem and ecosystem services</td>
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<tr>
<td>A.6. Estimated mitigation impact (tCO2eq over lifespan)</td>
<td>122 530 tCO2eq/y</td>
<td>A.7. Estimated adaptation impact</td>
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<td></td>
<td></td>
<td>(number of direct beneficiaries and % of population)</td>
<td></td>
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<tr>
<td>A.8. Indicative total project cost (GCF + co-finance)</td>
<td>Amount: USD 48,720,000</td>
<td>A.9. Indicative GCF funding requested</td>
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<td>The amount requested to GCF will be analysed further during the Project Preparation Facility</td>
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<td>A.10. Mark the type of financial instrument requested for the GCF funding</td>
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<td>☐ Equity</td>
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<td>☐ Subordinated loan</td>
<td>☒ Senior Loan</td>
<td>☐ Other: specify___________________</td>
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<td>The detail of financial instrument will be analysed later during the PPF</td>
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¹ Concept notes (or sections of) not marked as confidential may be published in accordance with the Information Disclosure Policy ([Decision B.12/35](#)) and the Review of the Initial Proposal Approval Process ([Decision B.17/18](#)).
### A.11. Estimated duration of project/programme:

| a) disbursement period: 2 years |  |
| b) repayment period, if applicable: 10 years |  |

### A.12. Estimated project/Programme lifespan

30 years

### A.13. Is funding from the Project Preparation Facility requested?[^2]

| Yes ☒ | No ☐ | Other support received ☐ If so, by who: The PPF will be co-funded by SUTRI NAMA - INDOBUS[^3] |
| ☐ | | |

### A.14. ESS category[^4]

| ☐ | A or I-1 |
| ☒ | ☒ B or I-2 |
| ☐ | ☐ C or I-3 |

### A.15. Is the CN aligned with your accreditation standard?

| Yes ☒ | No ☐ |
| ☐ | |

### A.16. Has the CN been shared with the NDA?

| Yes ☒ | No ☐ |
| ☐ | |

### A.17. AMA signed (if submitted by AE)

| Yes ☒ | No ☐ |
| ☐ | |

If no, specify the status of AMA negotiations and expected date of signing:

### A.18. Is the CN included in the Entity Work Programme?

| Yes ☒ | No ☐ |
| ☐ | |

### A.19. Project/Programme rationale, objectives and approach of programme/project (max 100 words)

Transportation sector counts for 25% of all energy-related emission in 2010, which 91% is resulted from road transport. Lack of sustainable urban transport implementation is an important problem in most cities in Indonesia including Semarang. The proposed project is aimed to reduce GHG emission in the transportation sector by developing a Bus Rapid Transportation (BRT) system which meets the international standard. The proposed project includes the construction of infrastructure for BRT (dedicated laneway, bus stations, sidewalk) and development of intelligent transportation system, integrated payment system and feeder routes. The accredited entity is PT Sarana Multi Infrastruktur (PT SMI) and the project will be executed by the Municipal Government of Semarang (GoS). In addition, the proposed project is in a collaboration with the SUTRI NAMA – INDOBUS project which is delivered by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the Ministry of Transportation Indonesia as the partner ministry.

[^2]: See [here](#) for access to project preparation support request template and guidelines

[^3]: Sustainable Urban Transportation Indonesia Nationally Appropriate Mitigation Actions Facility (SUTRI NAMA) – Indonesia Bus Rapid Transit Corridor Development Project (INDOBUS)

[^4]: Refer to the Fund’s environmental and social safeguards ([Decision B.07/02](#))
B. Project/Programme Information (max. 8 pages)
B.1. Context and baseline (max. 2 pages)

Transportation sector counts for 25% of all energy-related emission in 2010, in which 91% is resulted from road transport. During the CoP 21 in Paris 2015, Indonesia committed a National Determined Contribution (NDC) to a 29% reduction in GHG emissions by 2030 from "business as usual" baseline levels as voluntary mitigation actions, and a 41% reduction with international support. The Government of Indonesia (GoI) has taken many efforts in various sectors to reduce GHG emission. In 2011, The GoI introduced Presidential Regulation 61/2011 as National Action Plan for Reducing Greenhouse Gas Emissions (RAN-GRK) as the basis for ministries and regional governments to implement direct and indirect emission reduction measures where reducing GHG emission from transport sector become one priority. The main urban transport measures as listed in RAN-GRK estimated an emission reduction potential in 2020 of approximately 4.7 MTCO2e.

As described in RAN-GRK, GoI is committed to reduce GHG emission in the transportation sector by implementing the Avoid – Shift – Improve approach. Avoid refers to reducing the need to travel and the trip length by improving the efficiency of the transportation system. This can be done through integrated land – use planning and transport demand management. Shift component means to improve the efficiency of the trip by moving from the most energy consuming mode of transport, for example private cars, towards low carbon transport mode, for example non-motorized transport (walking, cycling) or public transport (Bus Rapid Transit (BRT), rail transport, etc). Improve instrument seeks to increase the fuel usage efficiency as well as optimization of transportation infrastructure.

The backbone for urban mobility in major cities is road transport, particularly car and motorbike. With only 1% road expansion, congestion is inevitable due to imbalance of supply and demand and consequently causing increased fuel demand and GHG emission. Outlook energy Indonesia (2016) noted fuel demand for transportation sector is 46 million TOE where 87.8% is consumed by road transport. At local level, transportation sector is also major contributor to the air pollution mainly in urban area where vehicle with engine combustion is highly concentrated as reported by Ministry of Environment in 2005. Motorized vehicle contributed to almost 99% local pollutant in Java’s big cities (Jakarta, Bandung, Semarang, Surabaya).

Following decentralization process in 1999 and the local government law 23/2014, local government is now assuming full responsibility for urban transport infrastructure and service in order to ensure seamless mobility for its inhabitant. However, most cities are still lacking of know-how to optimize investment in urban transport infrastructure and funding options to provide sustainable transport system are also limited. As of today, there is no structure to technically and financially support local governments in developing sustainable transport systems.

At the end of 2012, the Government of Indonesia registered Sustainable Urban Transport Programme (SUTRI NAMA), its first Nationally Appropriate Mitigation Action (NAMA) to the UNFCCC. SUTRI NAMA is aiming for international support in addition to unilateral RAN-GRK measure, particularly on enhancing public transport role as the backbone for urban mobility. In 2015, SUTRI NAMA was awarded financial support from NAMA Facility and late 2016, the Swiss Government through the State Secretariat for Economic Affairs of Switzerland (SECO) committed to co-finance additional technical component to SUTRI NAMA by INDOBUS Project for expanding the scope of SUTRI NAMA to deliver dedicated assistance to pilot cities for the implementation of fully pledged Bus Rapid Transit Systems (BRT) in selected Indonesian cities.

The GoI plans to develop and to improve BRT systems in some metropolitan cities including Semarang. The city Semarang is chosen as the location for this project due to several reasons. First, Semarang as the capital city of Central Java Province with 1.6 million inhabitants in 2015 is experiencing rapid urbanization and urban sprawl phenomena. In
transportation sector, due to insufficient public transport options, in 2014, 79% of mobility was predominantly using motorcycle. The use of private car followed with 18%. Public transport, angkot (a public transportation mode; which is a car with 14 seater), taxi and buses in total served only 2% of the city's transportation needs. Based on the latest survey in August 2017 in main roads of Semarang the transport was dominated by motorcycles (58%), private cars (22%) and public transport (20%). Second, main roads in Semarang are nearly saturated, with Volume Capacity Ratio (VCR) > 0.6, the actual carrying capacity of the road is achieved and causing delay for the traffic. VCR is an index to assess traffic status in cities, in which V is the total number of vehicles passing a point in one hour and C for the maximum number of cars that can pass a certain point at the reasonable traffic condition. Third, the city of Semarang commits to improve integrated public transport service together with mass transit development. The commitment is evidenced in the city mid-term development planning (RPJMD): BRT improvement, improving existing angkot system and outer ring road construction.

The existing Trans Semarang is not a BRT system given that it has not met the international BRT standard, since there is no dedicated right-of-way and other parameters of BRT standard. The development of a full BRT system is important as it will result in further reduction of GHG emission. Semarang has materialized the commitment by developing Trans Semarang as the only public transport mode operated and controlled by the city government. Currently, there are 6 Trans Semarang corridors spanning over the city which are supported by 112 operating buses and contribute to 40% of public transport use. The length of Trans Semarang corridors is 172 km and it serves the city’s inhabitants for 12 hours a day, starting at 5.35 am. In 2015, there were 8 million passengers served which was increasing sharply - 20 fold, compared to the number of passengers served in 2010 when the Trans-Semarang system was initially launched.

There are steps to reforms public transport system which will result in GHG emission reduction. The first plan is to improve accessibility for non-motorized transport such as pedestrian and cyclist facilities improvement, which is already planned by the Government of Semarang. Second, we need to improve existing public transport such as angkot and bus for better system, better management and better service. Third, after the demand improve existing public transport, we need to improve the mass public transport system to be a better and international standard transportation system such as Bus Rapid Transit which is integrated with existing route to improve its coverage. Last, after the demand improve, then build mass public transit system such as LRT or MRT which has a good integration with road-based system (BRT).

There are many reasons to justify the need for BRT in Semarang, but the main objective of implementing the BRT project is to reduce GHG emission by shifting private transportation users to be public transportation user and choosing the right technology for the buses. In addition, BRT also reduce travel time for passengers. BRT lanes can increase the bus travel speed and it should be built on a corridor where many public transport users travel and endure delays. In Guangzhou, the bus average speed during peak hour increased from 11 km/h to 19 km/h after BRT was developed.

BRT can also mitigate congestion for car users, especially in areas where buses block whole roads to pick up passengers, which can occur practically anywhere in Semarang. A BRT system generally gives priority to public transport passengers but can also greatly improve conditions for mixed traffic by solving the congestion problem caused by stopping buses.

Compared to rail-based mass transit system, due to the contour of Semarang, BRT offers flexibility and is easy to expand. Dedicated BRT lanes can increase bus travel speed significantly. But most importantly, with BRT, buses can operate inside and outside the BRT corridor, allowing rapid city-wide coverage.
Semarang is a member of 100 Resilient Cities which is pioneered by the Rockefeller Foundation and the city has developed a Resilience Strategy which describes 6 main pillars to achieve the vision of “Resilient Semarang”, one of which is integrated mobility. It is acknowledged that Semarang needs to improve its urban transportation service to increase people's interest to use public transportation. The strategies for this pillar are to encourage change in behaviour from using private vehicles to public transport, improving coordination and institutional management of public transport, and integrated transportation planning. This strategy includes several initiatives, which improvement of pedestrian area and cycling lanes, development of BRT system with good quality management system to achieve a more efficient mobility network, and improvement of public transportation facility to be more disabled people and environmentally friendly.

**B.2. Project/Programme description (max. 3 pages)**

In the system with lower urban density, like Semarang, prioritizing bus system over metro is the only logical first step. Since bus system has wider catchment area, better flexibility, and does not require high investment cost to start. Many cities with good metro system (Guangzhou, Santiago, Lima, Istanbul) also have excellent BRT system, and each system should not be treated as competition. However, in a city where the majority of public transport trips are made with paratransit, the most logical first step would be to focus on improving the bus system, where BRT is one of the efforts. Hence it is also the most appropriate solution for the city right now. Furthermore, BRT system can be the first step of public transport improvement in order to increase public transport ridership. The development of BRT system is part of a bigger transportation plan in Semarang. As stated in the Government of Semarang’s document, the GoS will also improve the pedestrian area as well as cycling lanes and explore further options for implementing LRT.

The proposed project is aimed to reduce GHG emission by developing a Bus Rapid Transportation System which meets the international standard. The project consists of the following components:

1. Construction of dedicated laneways (BRT lane, separators)
2. Construction of BRT Stations
3. Construction of bus stops and shelters outside corridor
4. Construction of BRT access along corridor and sidewalk improvement along corridor
5. Improvement of traffic lane and intersection along corridor
6. Development of Intelligent Transportation System and fare collection system

Whilst depot facility and fleet are also critical components, they are expected to be funded by private sectors/operator.

The BRT, which is proposed to use a 'direct-service' operational model, will also reach out to the area outside the corridor, covering more than 170 kilometre of road outside the corridor. This will create wider impact of the BRT as the system will cover at least 40% of the Semarang city Area. The public transport improvement is urgently needed as the ridership of public transport is constantly decreasing due to ease access to buy motorcycle and ride hilling app. The main target of BRT passengers are not only the current Trans Semarang passengers, but also the existing public transport users, currently served by paratransit. The estimated ridership on the opening year in 2022 is around 115,000 passengers per day, a significant increase from Trans Semarang ridership of 25,000 daily.

As shown in many BRT projects throughout Asia, BRT normally shift between 10 and 25% of private vehicle share. Whilst the exact number for Semarang will be determined from the Feasibility Study, it is expected that the shift will lay around the above number.
The BRT Semarang will have 2 types of bus sizes, i.e 12 meter bus and 9 meter bus. The size of a 12-meter bus is only provided to serve passengers on the BRT corridor. While the size of the bus 9 meters is provided to serve passengers off BRT corridor (Direct-Service). The bus will use a low-deck bus type to increase accessibility for passengers (easier for passengers to boarding and alighting) and also allow passengers on the curb-side to boarding and alighting without requiring stairs / steps or ramps. In addition to the bus size, the assessment of bus technology options will be further explored during the project preparation phase to ensure higher GHG emission reduction impact.

The development of the proposed BRT project will also not only focus on infrastructure improvement but also operational system (such as reduce transfer for passengers, wider service coverage and improve travel time) in order to give better service for the passengers. In addition to reducing GHG emission by implementing the project, it will also generate other impacts for passengers such as faster travel time, better waiting facility at the station, and wider coverage.

As a State-Owned Enterprise with a mandate to catalyse infrastructure development in Indonesia, PT SMI’s position as the accredited entity in this proposed project is well placed as transportation is also one of PT SMI’s eligible sector. The proposed project will request for the PPF from GCF, and during the project preparation phase PT SMI will assist Government of Semarang in further developing this project including project structuring.

B.3. Expected project results aligned with the GCF investment criteria (max. 3 pages)

1. Impact potential
   The BRT System development in Semarang is expected to reduce the consumption of fossil fuels used by private vehicles, therefore it is an important project to contribute to the national target in reducing GHG emission in urban transport. The project aims to implement sustainable urban transport system in one of the most populous urban area in Java island. The proposed project is a climate change mitigation project which is estimated to reduce 122 530 tCO2eq/y. The calculation is done using the AM0031 methodology which was developed by UNFCCC specifically for bus rapid transit projects. This method has been used in several Clean Development Mechanism projects for BRT development. The calculation method will also be used during project implementation for monitoring and evaluation. This methodology considers several emission sources for the calculation such as direct project and baseline emission caused by passengers transported in the BRT project as well as emission from the fuels. *The Government of Semarang has recently started to change fuel used by the Trans Semarang buses from diesel to CNG. This shows the Government of Semarang’s commitment to reduce GHG emission in the transportation sector. This process of replacing the fuel with CNG will be done incrementally and other options of the bus technology will also be assessed during the project preparation to increase the impact potential further.*

2. Paradigm shift
   Semarang is selected to be the pilot city to implement SUTRI NAMA-INDOBUS programme which is delivered by GIZ in partnership with Ministry of Transportation Indonesia and supported by other ministries. If Semarang could implement and operate dedicated BRT system which meet the BRT standard, other medium size cities in Indonesia will use this approach and it will be replicated especially in other cities selected by SUTRI NAMA – INDOBUS programme.
   In Indonesia, the only city which has developed a full BRT system is Jakarta, the capital of Indonesia. However, the characteristic of infrastructure project including the transportation project in Jakarta and other medium size cities is different. Besides the size and the population of the city, Jakarta’s regional development budget
(APBD) is way bigger than others, therefore Jakarta has capability to finance its development project such as the Transjakarta BRT without any supporting funding mechanism. Unlike Transjakarta, the proposed Semarang BRT will also integrate the existing informal minibuses into the system with will be designed with the system called direct service. In this direct service system, bus can run on and off the corridor to provide the wider coverage for the passenger. Before integrated with the system, informal minibuses have to upgrade their fleet and management to meet the standard operational system. The road width and network in Semarang is also not as wide as in Jakarta. This is usually one of the reasons why implementing dedicated lane for BRT corridor is challenging, because the cities do not believe that with limited space of road, with the good design and traffic management, it is still possible to implement at grade BRT corridor.

BRT lines are not business as usual, it needs strong political will from mayor as it will reduce the convenience of private vehicle users, as well as rejection from existing paratransit industries. Lots of planning, communications and consultation needs to be done before executing the project. The BRT project is part of a bigger transportation development in Semarang, as mentioned in the city's resilience strategy. The BRT project will be accompanied by pedestrian and access improvement along the corridor, and it is the first step towards low carbon mobility plan in the city.

3. Sustainable development
   a. As a low-emission transport, BRT reduces fuel demand since BRT is capable to transport 10,000 people/hour/direction compare to private cars that can only transport 4,500 people/hour/direction
   b. The economic benefit gained by BRT project is mostly a result of passenger time saving benefits from both public transport passengers and private vehicle passengers, as travel speed will increase for both users. The time savings obtained in the 15-20 kilometre corridors will be multiplied by more than 115,000 passengers who use the system on daily basis. It is forecasted will save up to 10 minutes each passenger. Other factors which contributes to the economic benefit from BRT project is also the vehicle operating cost decrease, for both public transport and private vehicles.
   c. The economic impact of BRT will also be extended to the existing public transport system. Arguably, the existing public transport system is closely linked with the life of 1,000 people, who are the families and relatives of the existing transports workers (bus drivers, conductors, bus stand fee collectors). It is expected that the BRT project will also increase the quality of life of these 1,000 individuals and might open new job opportunity up to 2,000 people.
   d. Since private vehicle users shift to public transport users, then, the accident rate will also decrease.
   e. In terms of gender equality, both man and women can have equal access to all types of formal employment in BRT industry, including women drivers, such as the case of Transjakarta, where women bus drivers are common sight in the Jakarta BRT system. In Islamabad and Lahore Metro Bus, there are many women who work as ticket sales officers at station.
   f. This project is a part of bigger reformation for transportation system in Semarang. To be the solution for mobility in Semarang, it will resolve the first and last mile problems with the improvement of sidewalk and bicycle lane.

4. Needs of recipient
Build transportation system means allowing people access what they need: jobs, social interaction, school, markets and others. With this project, we believe that we will provide access to safe, affordable, accessible, integrated and sustainable transport system for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with
5. Country ownership

The proposed project is well aligned with the national and regional’s priority. Reducing GHG emission in the transportation sector is one of the plan described in the National Action of GHG Emission reduction (RAN-GRK). In addition, the development of BRT in selected cities in Indonesia is also acknowledged in the National Medium Term Development Plan (RPJMN). The RPJMN is further translated into Semarang’s Regional Medium Term Development Plan (RPJMD) where BRT project is also listed as one of the strategy of the city in transportation sector. Furthermore, Semarang is a member of 100 Resilient Cities pioneered by Rockefeller Foundation and the city has published it’s resilience strategy. In the city’s strategy, integrated mobility is one of the main pillars for the city development, and that includes BRT development. The alignment with national’s strategy is further emphasized by selecting Semarang as one of the pilot cities where SUTRI NAMA – INDOBUS programme will be implemented. This national programme which is supported by ministries in Indonesia with the Ministry of Transportation as the head of Steering Committee will oversee the implementation of this project to ensure that the project is aligned with the national programme.


Transport contributes about 23% of GHG emissions worldwide. With motorization on the rise, that share is expected to grow dramatically, making this a critical sector to reform in order to address climate change. Transport improvements that shift to low-emission modes also generate “co-benefits” in terms of reducing congestion, local air pollution, oil dependency and transport safety risks. Through BRT system, mobility will be more effective and efficient. The cost estimated in the project construction is about 49 mio USD, compared with the emission reduction it will cost 400 USD per tCO2e reduction.

B.4. Engagement among the NDA, AE, and/or other relevant stakeholders in the country (max ½ page)

The Accredited Entity of this proposed project is PT SMI. PT SMI is a state – owned financial institution linked with the Ministry of Finance with a mandate to become the catalyst for infrastructure development in Indonesia. This project is aligned with the mandate of PT SMI and PT SMI also has the experience in the transportation sector. During the development of this concept note, PT SMI has been engaged with the Government of Semarang City as the executing entity of this project. In addition, PT SMI has shared this Concept Note with the Fiscal Policy Agency which is the NDA in Indonesia and the No-Objection Letter has been issued. This proposed project is included in PT SMI’s Entity Work Programme. Since this project is requesting the Project Preparation Facility which will be co-funded by SUTRI NAMA – INDOBUS, PT SMI has been actively engaged with GIZ as well as Ministry of Transportation. This project is aligned with the national priority which is to develop BRT system in cities in Indonesia. As the SUTRI NAMA – INDOBUS is a national programme, further coordination will be developed between each stakeholder including the project preparation phase, funding proposal, and implementation.
C. Indicative Financing/Cost Information (max. 3 pages)

C.1. Financing by components (max ½ page)

<table>
<thead>
<tr>
<th>No.</th>
<th>Component/Output</th>
<th>Indicative cost (USD)</th>
<th>GCF financing*</th>
<th>Co-financing*</th>
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<td></td>
<td></td>
<td>Amount (USD)</td>
<td>Financial Instrument</td>
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<td>BRT stations</td>
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<td></td>
<td></td>
</tr>
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</tr>
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<td>4</td>
<td>BRT access along corridor and sidewalk improvement</td>
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<td></td>
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</tr>
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<td>5</td>
<td>Traffic lane and intersection improvement along corridor</td>
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<td>6</td>
<td>ITS and fare collection system</td>
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<td>7</td>
<td><strong>Indicative total cost (USD)</strong></td>
<td><strong>48.720.000</strong></td>
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</tr>
</tbody>
</table>

*The amount for GCF financing and other Co-financing will be further analysed during Project Preparation Facility. Whilst depo facility and fleet are also critical components, it will be funded by private sectors/ bus operators.

C.2. Justification of GCF funding request (max. 1 page)

The city has put the BRT as their top priority on their city 5-year strategy, and this has been reflected by the budget allocation for subsidy for Trans Semarang over the last 9 years. This will remain the case after the full BRT project is implemented. However, the city has fiscal limitation to finance the BRT infrastructure. The estimated amount of project cost has been calculated but the source of funding still needs to be investigated during the project preparation phase, including the analysis of local financial capacity and also support from the national government. With GCF support this project could be delivered with the assurance to have high quality project with international standard. BRT projects are not business as usual, it needs strong political will from the government as well as identification of potential source of fund. After this project is implemented, this project will be the model for other cities in Indonesia and create paradigm shift on the national level, which fits well with GCF’s criteria.

C.3. Sustainability and replicability of the project (exit strategy) (max. 1 page)

The development of BRT in Semarang will not only benefit in reducing GHG emissions, but also will generate other socio-economics benefits and environmental benefits for various stakeholders including women as well as most vulnerable people and communities. As a low-emission transport, BRT reduces fuel demand since BRT is capable to...
transport 10,000 people/hour/direction compare to private cars that can only transport 4,500 people/hour/direction, while as a socio-economics benefits provider, BRT creates 2000 jobs, reduces travel time and ensures safety on roads. In a long run, the operation of reliable public transport will encourage people to use public transport rather than private cars or motorbikes, reducing road congestion, that also leads to better air quality.

The Government of Semarang City has established the Trans Semarang unit which will be responsible for the BRT operational. PT SMI as the accredited entity will also be responsible for monitoring and reporting to GCF during project implementation. The Government of Semarang has allocated the budget for Trans Semarang operations, therefore once the infrastructure is built, the operation and continuity of this project will be ensured. During implementation of the project, as Semarang is selected as the pilot city for SUTRI NAMA – INDOBUS, project monitoring will also be done on the national level. In addition, in terms of replication, the aims of this BRT project are to be the pioneer for other medium size cities in Indonesia, although their road infrastructure is not as wide as Jakarta, the BRT dedicated system with high capacity still possible to be implemented in medium size cities.

Although the financial instruments as well as other source of funding has not yet fully analysed at this time, it will be part of the project preparation facility requested to GCF. During the project preparation phase the suitable project structure as well as financial instruments will be further analysed to ensure a sustainable project.

D. Supporting documents submitted (OPTIONAL)

☐ Map indicating the location of the project/programme
☐ Diagram of the theory of change
☐ Economic and financial model with key assumptions and potential stressed scenarios
☐ Pre-feasibility study
☐ Evaluation report of previous project
☐ Results of environmental and social risk screening

Self-awareness check boxes

Are you aware that the full Funding Proposal and Annexes will require these documents? Yes ☐ No ☐

- Feasibility Study
- Environmental and social impact assessment or environmental and social management framework
- Stakeholder consultations at national and project level implementation including with indigenous people if relevant
- Gender assessment and action plan
- Operations and maintenance plan if relevant
- Loan or grant operation manual as appropriate
- Co-financing commitment letters

Are you aware that a funding proposal from an accredited entity without a signed AMA will be reviewed but not sent to the Board for consideration? Yes ☐ No ☐
Ref. : S-2761KF/2018

6 June 2018

Mr. Howard Bamsey
Executive Director
Secretariat of the Green Climate Fund
175, Art center-daero
Yeonsu-gu, Incheon 406-840
Republic of Korea

Subject: No Objection Letter for the Proposal for the GCF Project Preparation Facility by PT Sarana Multi Infrastruktur (PT SMI) regarding Bus Rapid Transit Development in Semarang.

Dear Mr. Bamsey,

We refer to the Project Preparation Facility proposal Bus Rapid Transit Development in Semarang in Indonesia as included in the PPF proposal submitted by PT SMI to us on 16 November 2017.

The undersigned is the Chairman of Fiscal Policy Agency, Ministry of Finance as the Head of the National Designated Authority of Indonesia.

Pursuant to GCF decision B.08/10 and B.13/21, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the Project Preparation Facility activities as included in the PPF proposal.

By communicating our no-objection, it is implied that:
(a) The government of Indonesia has no-objection to the Project Preparation Facility request as included in the PPF proposal;
(b) The PPF Proposal is in conformity with Indonesia’s national priorities, strategies and plans;
(c) In accordance with the GCF’s environmental and social safeguards, the PPF activities as included in the PPF proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the PPF Proposal has been duly followed.

We acknowledge that this letter will be made publicly available on the GCF website.

Yours faithfully,

[Signature]

Suhasil Nazara
Chairman