



GREEN
CLIMATE
FUND

Simplified
Approval
Process

SIMPLIFIED APPROVAL PROCESS (SAP) TECHNICAL GUIDELINES

Transport



INTRODUCTION

DEFINITION

The publication provides technical guidance for the preparation of SAP proposals. Although there is no one standard definition of the transport sector, it can be described as including all kinds of transportation, such as road, rail and maritime transport, and aviation. Nonetheless, the International Panel on Climate Change (IPCC) has tried to provide a definition of sustainable transport, which refers to “the aim to provide accessibility for all to help meet the basic daily mobility needs consistent with human and ecosystem health, but to constrain GHG emissions”.¹

It is vital to understand that a reduction in emissions in the transport sector can take place through holistic, integrated mobility planning, which can be facilitated in two possible ways:² (a) the adoption of new technologies to reduce the energy intensity in the sector, and (b) a modal shift towards sustainable transport, including sustainable transportation and improved planning. Therefore, it is important to keep in mind that a reduction in emissions is not limited to reductions in energy intensity but can also be linked to projects that encourage a change in transport methods or a modal shift. These options are described in further detail in the following sections.

RELEVANCE TO CLIMATE CHANGE

The transport sector forms the backbone of any country’s economic activity, and in developing economies, the demand for travel is destined to increase, set in motion by drivers, such as increased economic activity and urbanization. In 2017, final energy use by the sector was approximately 29 per cent of global energy demand, representing a 45 per cent increase between 2000 and 2017. This growth is largely due to a rise in the number of vehicles in use and an increase in the demand for aviation and maritime transport. If actions are not put in place to mitigate against this trend, the emissions from this sector are expected to rise significantly post-2050.

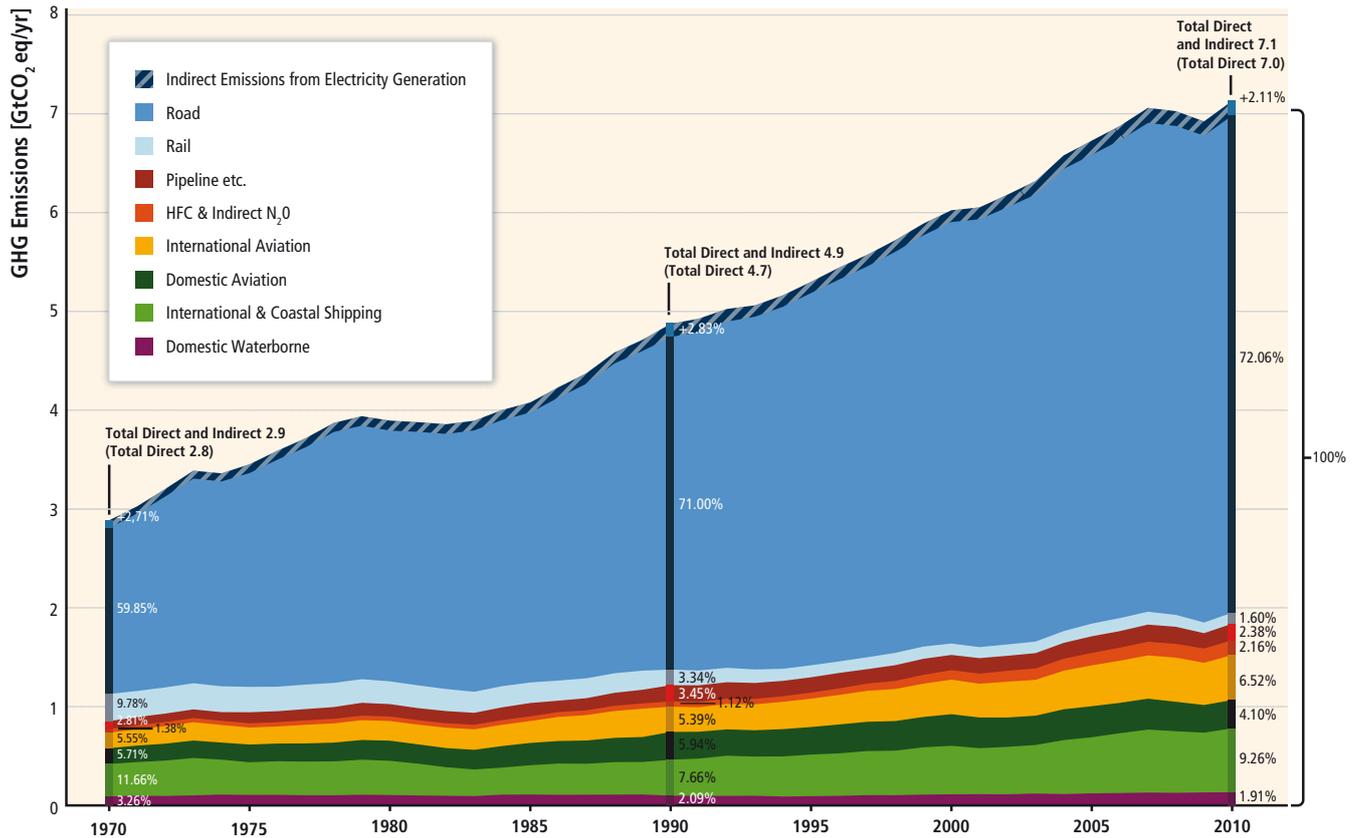
1. Sims R., Schaeffer R., Creutzig F., Cruz-Núñez X., D’Agosto M., Dimitriu D., Figueroa Meza M. J., Fulton L., Kobayashi S., Lah O., McKinnon A., Newman P., Ouyang M., Schauer J.J., Sperling D., and Tiwari G. 2014. *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge and New York: Cambridge University Press. Available at <https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter8.pdf>.

2. Document GCF/B.09/06, pp.30–33.

It is estimated that transport emissions could increase rapidly as compared to other energy end use sectors. Currently, the transport sector contributes approximately 13 per cent of global carbon dioxide (CO₂) emissions, but is likely to increase by 25 per cent by 2030.³ According to the IPCC Fifth Assessment Report (AR5), in 2010, the transport sector produced 7.0 gigatonnes of carbon dioxide equivalent (GtCO₂eq) of direct greenhouse gas (GHG) emissions (including non-CO₂ gases).⁴ Of the emissions produced by the energy sector, the transport sector contributes approximately 23 per cent, which is about 6.7 GtCO₂eq. Figure 1, taken from the IPCC AR5 Working Group III transport chapter,⁵ illustrates direct and indirect emissions from the transport sector. Although the graph includes emissions from non-transport-related sources as well, transport-related emissions should be viewed for reference.

3. See footnote 1.
 4. See footnote 1.
 5. See footnote 1.

Figure 1: Direct and indirect emissions from the transport sector worldwide between 1970 and 2010.



Source: Chapter 8, IPCC AR5 Working Group III

APPROACH

KEY AREAS / COMPONENTS

The type of interventions in the transport sector that could be considered for simplified approval process (SAP) financing can, as previously mentioned, be divided broadly into the following two categories: (a) the adoption of new technologies to reduce energy intensity in the transport sector, and (b) a modal shift towards sustainable transport. These categories are described below in further detail.

- a. The **adoption of new technologies** refers to relevant technologies in the transport sector that help to reduce energy intensity, which could include low-emission transport. In this context, mitigation could refer to higher efficiency engines and standards, alternative fuels, and electric and hybrid technologies. For instance, periodic revision and adoption of standards such as the Euro standards⁶ are important. This could also include retrofitting of public transport with filters or switching traditional fossil-based fuels for cleaner ones. It is important to note that there are costs associated with these interventions, such as infrastructure costs (e.g. charging systems and storage batteries). Aside from investment in low-emission technology for various forms of mobility systems, new technology for traffic management (e.g. smart light systems, and information systems for mass transit) and options such as cashless payment can also be considered as new transport technologies. Mobile phone applications for ride shares can also be considered as part of this category.
- b. **Modal shift** takes into account the larger urban planning and mobility infrastructure in any urban area. In addition to adopting technologies, cities could also consider including compact, connected and coordinated spaces when designing urban plans, thus minimizing the need to travel large distances. This would reduce the high dependence on cars and high emissions development; instead, emphasis would be placed on sustainable public transport options. Countries that are experiencing rapid urban growth, and especially cities that are embarking on the urbanization process, could leapfrog their development through focusing on low-emission transport infrastructure rather than retrofitting at a later stage.

PARADIGM SHIFT POTENTIAL

A paradigm shift in this context occurs when there is a fundamental change in the way one perceives and responds to a climate change issue related to the transport sector in particular. It is recommended that the project proponent keep this in mind when designing a transport project, since such shifts result in behavioural changes, the benefits of which last long beyond the lifetime of a single project.

For the transport sector, with the possible interventions mentioned in the preceding section, a paradigm shift is a behavioural move towards low-emissions solutions, and/or developing sustainable ways of mobility, which includes better urban planning. In addition, for this sector, the modal shift could involve a change in the regulatory frameworks and policies related to the sector as well. Such activities should ultimately result in a shift to low-carbon pathways. For each project, this section will also make a detailed reference to the theory of change.

6. Emissions standards implemented by the European Union in the automotive sector. More information is available at <http://ec.europa.eu/growth/sectors/automotive/environment-protection/emissions_en>

IMPACT MEASUREMENT

The project proponent should clearly indicate the expected impact of the intervention in both qualitative and quantitative terms. Note that the primary interest of GCF is in the impact that the project will generate. Hence, it is important to align such projects with GCF priorities to ensure that a strong and persuasive case is presented.

It is recommended that the proponent refer to the GCF performance measurement frameworks (PMF) and adopt the language therein when describing the project's impact.⁷ The PMF contains a list of indicators used by GCF to assess the expected benefits of the project. A table with fund-level impacts and project/programme-level outcomes with indicators relevant to potential transport projects is presented below.

Note that a vague and qualitative description, such as "reduced emissions from transport", will not suffice. There needs to be a granular elaboration with quantitative estimates provided, wherever possible.

⁷ Annex VIII to document GCF/B.08/45.

EXPECTED RESULTS	INDICATORS	NOTES
Fund-level Impacts		
Reduced emissions through increased low emission energy access to low-emission transport	Tonnes of carbon dioxide equivalent (tCO ₂ e _q) reduced or avoided as a result of GCF-funded projects/ programmes – <i>low emission gender sensitive transport (subindicator)</i>	Public transport: Specifics to be informed by pending MDB/IFI work on transport GHG accounting harmonization; GEF's 2013 transport project GHG calculation methodology developed by the Institute for Transportation Development Policy (ITDP) Disaggregated by gender Vehicle Fuels (<i>fuel economy standards</i>): (If applicable to GCF investments) methods may be informed by the work of International Council on Clean Transportation (ICCT); and by the work of the Women's Issues in Transportation Committee of the United States Transport Research Board
Project/Programme Outcomes		
Increased use of low-carbon transport	Number of additional female and male passengers using low-carbon transport as a result of GCF support	Informed by CIF CTF indicator 4, pending work by MDBs and IFIs on transport GHG accounting harmonization Additional passengers = modal shift To consider underlying reasons for a modal shift, such as transit oriented development Disaggregated by gender
	Vehicle fuel economy and energy source as a result of GCF support	Trends in fuel economy by vehicle class (commercial and passenger plus subclasses by heavy/ light duty, weight, etc.) and energy source (e.g. hybrid and all-electric vehicles) Focuses on vehicles in the private, commercial and government fleets (not public transport or sustainable transport options) Details of methodology to be determined: may be by average fuel economy by vehicle class. Informed by work of the International Energy Agency (IEA), the International Council on Clean Transportation and others
Project/Programme sub-Indicators		
Planning/Increased use of sustainable mobility		
Reduce the demand for total motorized transport activity through appropriately designed urban places	Indicators of these outcomes are difficult to quantify as this is a result of an urban planning process	
Promote the use of low-emission transport modes, such as walking, cycling and public transport		

Abbreviations: CIF = Climate Investment Funds, CTF = Clean Technology Fund, GEF = Global Environment Facility, GHG = greenhouse gas, IFI = international financial institution, MDB = multilateral development bank

INDICATIVE SIMPLIFIED APPROVAL PROCESS ACTIVITY MATRIX FOR TRANSPORT⁸

8. These activities may not be eligible under the SAP under certain conditions. Accredited entities will need to screen their projects to determine if they are low risk and therefore eligible for consideration under SAP. Factors such as the scale of operations may increase the risk level.

SAP-ABLE EXAMPLES

Reduced emissions through increased access to low-emission transport

SECTOR	SAMPLE SAP-ABLE ACTIVITY	SAMPLE INDICATOR	NOTES
Transport	Electric vehicles – replacement of diesel-powered public vehicles with electric buses	Number of charging stations installed (not required if battery swap model is adopted) Number of diesel-powered buses replaced	Replacing existing bus fleets with electric buses Note: electric vehicle projects should not result in additional land acquisition or restriction on land use and need to have appropriate mechanisms in place for end-of-life batteries. In addition, the presence of appropriate disposal channels or alternative uses (e.g. recycling) should be specified
	Adoption and implementation of low-carbon fuel emission standards, such as the adoption of hybrid and plug-in hybrid systems	Number of buses retrofitted/replaced Number of private vehicles retrofitted/replaced	Note: projects should not focus on diesel fuel only
	Bike sharing and/or scooter sharing programmes	Number of stations Number of bikes/ scooters accessible to the public	Such a programme should not include the construction of bike or scooter lanes as it may not comply with ESS criteria for SAP
	Electric vehicles – replacing a number of private vehicles with electric rickshaws	Number of charging stations installed Amount of GHG emissions reduced	To replace the use of private vehicles with public transportation, such as electric rickshaws Note: electric vehicles projects need to specify the presence of appropriate disposal channels or alternative uses (see similar note above)
	Revising urban/town plans to encourage sustainable options, such as walkability	Area of increased walkable pathways Increase in the number of people walking as a result of this change	Note: a revision of plans should be undertaken within existing municipal boundaries that would not result to physical or economic displacement as a result of land acquisition and/or restrictions on land use

Abbreviations: ESS = environmental and social standards, GHG = greenhouse gas, SAP = simplified approval process

It is important to note that this list is not exhaustive, rather it presents examples of activities that could be considered when designing a project under the SAP programme.

NON SAP-ABLE EXAMPLES

SECTOR	SAMPLE NON-SAP-ABLE ACTIVITY	NOTES
Transport	Electric vehicles – cases in which electric vehicles are not displacing emissions	Projects that do not show any positive impact in reducing emissions from electric vehicles as compared to fossil-fuel vehicles
	Construction of Bus Rapid Transit (BRT), light rail transit (LRT) systems	Although BRT and LRT systems encourage the use of public transport, the scale by which this will be implemented may not meet the ESS and funding criteria

Abbreviations: ESS = environmental and social standards

PROJECT SCENARIOS

PROJECT SCENARIO 1

CONTEXT

With urban growth comes a rapid increase in the number of cars on the streets. In order to reduce greenhouse gas (GHG) emissions from the use of traditional fuels, and gain other co-benefits, such as limiting congestion and improving local air quality, a city revised its town plans to include sustainable transport options.

PROJECT ACTIVITIES:

- **Identify local needs.** The city used a participatory approach to conduct a needs assessment and identify local mobility challenges so as to reflect them adequately in the revised town plans. This included basic data collection, such as information on average commuting distances, time spent commuting, the availability of public transport, average car ownership, vehicle kilometre travelled and passenger kilometre travelled, among others.
- **Capacity-building.** Capacity-building workshops were held to inform local citizens, town planners and relevant local and national government officials about the impacts of climate change on local towns. This town had an existing climate vulnerability assessment report that could be used to understand the specific local impacts from climate change. The report was used to identify zones within the city that are highly vulnerable to extreme weather events as a result of climate change. These vulnerable zones were mapped out and overlaid with the city plan to understand and develop action plans that fed into future town plans.
- **Revision of urban plans.** Urban planners along with the city government revised the city's urban plan to include an integrated transport plan that considered all modes of transport, with particular emphasis placed on sustainable options, such as walking and public transportation. The plans included inputs from the community to integrate the needs of the local citizens and understand the traffic flows and movement of people better.
- **Regulatory revisions.** In order to implement the whole mobility plan, the city government included changes that needed to be made to include information and communication technology (ICT) components (e.g. the location of transport monitors, type of smart vehicles being used) to plan any changes to public transport routes. In addition, the city also included any regulatory and policy changes that were needed to set an enabling environment to implement the whole mobility plan. It is important to note that these activities are limited to the planning stage and do not involve the construction of new roads or any new infrastructure to meet the environmental and social standards criteria for simplified approval process projects.

IMPACT POTENTIAL

Since this project is a change in the urban plans, the number of people benefiting from this change is the whole population of the town, which is approximately 110,000 people.

- **Beneficiaries:** the population of the whole town, as the plan, once implemented, will reduce the GHG emissions and improve local air quality.
 - **Social impact:** the project aims to positively influence the long-term behaviour of the areas' citizens. This puts into practice the avoid, shift and improve approach to sustainable transportation.
 - **Future impact:** this project could be scaled up to request further investment in the implementation of the revised urban plans and also set up an ICT-enabled transport system. As a next step, dedicated pathways for walking ensuring pedestrian safety can be built in the city.
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PROJECT SCENARIO 2

CONTEXT

With increasing urban populations there is a pressing demand on public transport. In most developing countries, the current bus fleet is made up of carbon-emitting diesel buses. To improve public transport in a city, a select few diesel buses of the local bus fleet were retired and replaced with electric buses.

PROJECT ACTIVITIES:

- **Electric buses adopted.** Approximately 10 buses were purchased and made operational. Since charging stations were not feasible for this project, a battery swapping system was put in place for the buses.
- **Capacity-building.** The change in technology from diesel to electric will require technical training for the drivers and technicians in charge of maintaining the buses. As part of the programme, a hands-on training programme was developed to provide the adequate skills to the technicians and bus drivers from the electric bus company.
- **Revision of urban plans.** Urban planners along with the city government identified a car-free zone for a section of the city on a pilot basis. As part of the revision of urban plans, a partial mobility plan for the targeted section of the city was developed, which includes bus routes for the electric buses and rerouting of cars to enforce the car-free zone.
- **Regulatory revisions.** In order to implement the car-free zone and have the electric buses running, the city government revised the necessary policies to include information and communication technology (ICT) components, such as the location of bus monitors at the bus stops, to plan any changes to public transport routes in order to make the pilot area a car-free zone. In addition, the city also should include any required regulatory and policy changes that were needed to set an enabling environment in which to implement the car-free zone and relevant policies to allow for the operation of electric buses on the streets. It is important to note that these activities are limited to the planning stage and do not involve the construction of new roads or any new infrastructure, other than the installation of electric bus stops and a monitoring system. Therefore, this project meets the environmental and social standards criteria for simplified approval process projects.

IMPACT POTENTIAL

The number of additional people using low-carbon transport options, in this case the number of people walking to work or using the public transport system, were calculated for this project.

- **Beneficiaries:** 40 per cent reduction in the number of cars going through the car free zone. With the current public transport systems, an increase in passengers on the electric buses was also reported.
 - **Social impact:** to positively influence the long-term behaviour of the area's citizens. This puts into practice the avoid, shift and improve approach to sustainable transportation.
 - **Future impact:** this project could be scaled up to request further investment in the public transport sector to employ more electric buses and if needed to expand the car-free zone, including the ICT components mentioned above. If successful, car-free zones can be introduced in other parts of the city as well following careful consideration.
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