Shift passenger from motor cars to 370 buses in preah sihanouk

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Ministry of Public work and transport

Executive Summary

Report Name:	Shift passenger from motor cars to 370 buses in preah sihanouk
Sector(s):	Transport
Year(s):	2016,2021,2030

Table 1: Summary of the assessments of climate actions in Transport sector

Aggregated Actions	Specific Climate Actions	Year	Type	Emission Reduction (tCO_2e)	MAC (tCO_2e/USD)
Promote integrated public transport system in main cities	Shift passenger from motor cars to 370 buses in Preah Sihanouk	2021	GHG Ex-post	470	N/A
Promote integrated public transport system in main cities	Shift passenger from motor cars to 370 buses in Preah Sihanouk	2021	MAC Ex-post	470	1557

Figure 1 illustrates the status of achieving emissions reduction targets of Transport sector of Cambodia_Test. The expected emission reduction of the Transport sector by 2030 year is 140 tCO_2e conditionally, and 153 tCO_2e unconditionally. Mitigation actions implemented by year 2030 were able to reduce Transport sector emissions from 470 tCO2e.

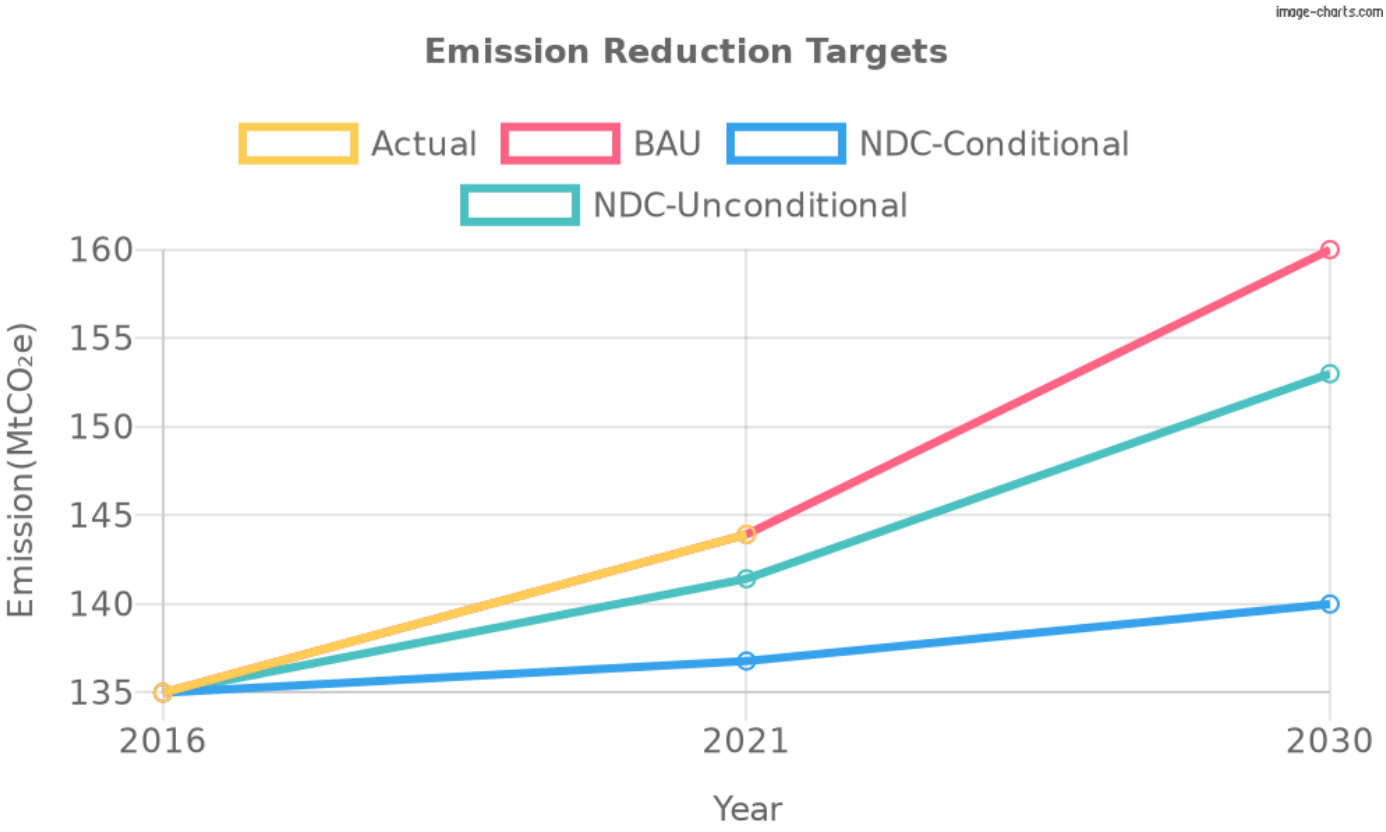

Figure 1 Emissions reduction of Transport sector of Cambodia_Test

Promote integrated public transport system in main cities

Shift passenger from motor cars to 370 buses in Preah Sihanouk

Shift passenger from motor cars to 370 buses in Preah Sihanouk Ministry of Public Works and Transport by Government to Improve the model share of the public buses, Reduce the traffic congestion . Action includes Introduce 370 new buses to Preah Sihanouk city for inter-city transportation. The geographical boundary of the project includes null, null, null. Adopted It is expected that the project will Reduce traffic congestion, reduce air pollution, increase the average speed of transport modes, and reduce private automobiles . In addition, mitigation action has various sustainable development benefits such as Goal 11 sustainable cities, and communities and Goal 13 climate actions, Goal 5 gender equity

GHG impact assessment

System boundary

Table System boundary of the GHG impact assessment of Shift passenger from motor cars to 370 buses in Preah Sihanouk

Boundary elements	Description
Geographic Boundary	null, null, null
Temporal Boundary	2021 - 2021
Transport subsector	Passenger
Upstream/downstream	No
GHGs Included	Only CO2

Measurement

Assessment Approach	Ex-post
Base Year	2016
Assessment year(s)	2021
Methodology	Modal Shift (Passenger)

Baseline Scenario

Transport passengers by private cars

Table Data required to assess baseline emissions of Shift passenger from motor cars to 370 buses in Preah Sihanouk

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Key indicators	Unit
Average occupation rate of transport mode - Petrol-car	passenger/vehicle)
Share of passengers by transport mode - Petrol-car	%
CO2 emission factor - Petrol	t-CO2/MWh
Net calorific value - Petrol	TJ/t
CO2 emission factor of transport mode - Petrol-car	t-CO2/km
Fuel consumption rate of transportation - Petrol-car	t/km

Baseline emissions attributed to the Shift passenger from motor cars to 370 buses in Preah Sihanouk are given in Table.

Table Baseline emissions of Shift passenger from motor cars to 370 buses in Preah Sihanouk

Year	Emissions (MtCO2e)
2021	1225

Project Scenario

Transport passengers in 370 public buses

Table: Data required to assess project emissions of Shift passenger from motor cars to 370 buses in Preah Sihanouk

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Key indicators	Unit
No of passenger transported per year - Common	passenger/y
Fuel consumption - Diesel-bus	t/y
Average trip distance of the passenger of the project activity in year y - Common	km
CO2 emission factor - Diesel	t-CO2/MWh
Net calorific value - Diesel	TJ/t

Direct project emissions attributed to the Shift passenger from motor cars to 370 buses in Preah Sihanouk are given in Table 6.

Table: Direct project emissions attributed to Shift passenger from motor cars to 370 buses in Preah Sihanouk

Year	Emissions (MtCO2e)
2021	-

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Emissions estimated for 2021 are summarized in Table 9. According to the table, Shift passenger from motor cars to 370 buses in Preah Sihanouk reduce 470 tCO2e in the 2021.

Table Emissions reduction due to Shift passenger from motor cars to 370 buses in Preah Sihanouk

Scenario	2021 Emissions (MtCO2)
Baseline emissions	1225
Project emissions	755
Lekage reductions	null
Emission reductions	470

Cost of climate action

The marginal abatement cost (MAC), in general, measures the cost of reducing one more unit of pollution. Table 10 indicates the MAC of Shift passenger from motor cars to 370 buses in Preah Sihanouk.

Table 10 MAC of the Shift passenger from motor cars to 370 buses in Preah Sihanouk

Year	MAC (USD/tCO2e)
2021	1557