

Traffic and Transportation Sector

Appendix-3 Freight /Passenger Transportation Improvement

Appendix-4 MRT

Appendix-5 Mono-rail, LRT

Appendix-6 Bus

# Input Sheet

## 3.1 Railway, Passengers

Project name Railway Passenger Diesel

### Road traffic

#### Baseline.BEy

Type of input data 2 Select 1 or 2 from pull-down menu and input data to the following cells.

1: Passenger number 2: Total annual trip distance driven by vehicles (vehicle km/year)

#### 2. Total annual trip distance driven by vehicles (Unit: vehicle km/year)

Transportation mode	Opening year		5 yrs after opening		10 yrs after opening		15 yrs after opening		20 yrs after opening	
	2014	2019	2019	2024	2024	2029	2029	2034	2034	
Transport mode 1	Bus	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	
Transport mode 2	Automobile	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	
Transport mode 3	Taxi	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	
Transport mode 4										
Transport mode 5										
<b>Total</b>		266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	

#### Project PEy

Type of input data 1 Select 1 or 2 from pull-down menu and input data to the following cells.

1: Passenger number 2: Total annual trip distance by new train (train km/year)

#### 1. Passenger number (Unit: person/year)

Transportation mode	Opening year		5 yrs after opening		10 yrs after opening		15 yrs after opening		20 yrs after opening	
	2014	2019	2019	2024	2024	2029	2029	2034	2034	
Railway 1	New railway 1	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	
Railway 2										
Railway 3										
Railway 4										
Railway 5										
<b>Total</b>		147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	

### Road traffic characteristics

#### Baseline.BEy

Transportation mode	No needs for input	No needs for input
Bus		
Automobile		
Taxi		

Transportation mode	Fuel consumption rate (km/l)		CO2 emission factor (gCO2/l)		Fraction	
	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Bus	2,646	2,299	2,313	2,661	20%	80%
Automobile	8,547	9,259	2,313	2,661	99%	1%
Taxi	8,547	9,259	2,313	2,661	98%	2%

Transportation mode	Mixing rate of biofuel	
	Gasoline	Diesel
Bus	0.1	0.1
Automobile	0.1	0.1
Taxi	0.1	0.1

#### Project PEy

Transportation mode	Average daily occupancy rate (person/train)	Average daily trip distance of trains (km/train)
New railway 1	300	50.00

Transportation mode	Fuel consumption (km/l)	CO2 emission factor (gCO2/l)
New railway 1	1,000	2,661

Transportation mode	Mixing rate of biofuel
New railway 1	0.1

# Calculation Result Sheet

Project name Railway Passenger Diesel

## CO2 emission factor (Unit tCO2/y)

<b>Baseline</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Transport mode 1	Bus	130,851	130,851	130,851	130,851	130,851
Transport mode 2	Automobile	14,121	14,121	14,121	14,121	14,121
Transport mode 3	Taxi	18,588	18,588	18,588	18,588	18,588
Transport mode 4						
Transport mode 5						
<b>Total</b>		<b>163,559</b>	<b>163,559</b>	<b>163,559</b>	<b>163,559</b>	<b>163,559</b>

<b>Project</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Railway 1	New railway 1	58,675	58,675	58,675	58,675	58,675
Railway 2						
Railway 3						
Railway 4						
Railway 5						
<b>Total</b>		<b>58,675</b>	<b>58,675</b>	<b>58,675</b>	<b>58,675</b>	<b>58,675</b>

<b>GHG emission reduction</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
		<b>104,884</b>	<b>104,884</b>	<b>104,884</b>	<b>104,884</b>	<b>104,884</b>

## Baseline emission factor/project fuel consumption

### Baseline

Emission factor per 1km (gCO2/km)

Transportation mode	Gasoline	Diesel	Total
Bus	-	-	-
Automobile	-	-	-
Taxi	-	-	-

Baseline emission factor per capita (gCO2/capita)

Transportation mode	
Bus	-
Automobile	-
Taxi	-

Total fuel consumption for gasoline (l/y)

Transportation mode	2014	2019	2024	2029	2034
Bus	8,984,800	8,984,800	8,984,800	8,984,800	8,984,800
Automobile	6,040,245	6,040,245	6,040,245	6,040,245	6,040,245
Taxi	7,865,684	7,865,684	7,865,684	7,865,684	7,865,684

Total fuel consumption for diesel (l/y)

Transportation mode	2014	2019	2024	2029	2034
Bus	41,363,690	41,363,690	41,363,690	41,363,690	41,363,690
Automobile	56,321	56,321	56,321	56,321	56,321
Taxi	148,180	148,180	148,180	148,180	148,180

### Project

Emission factor per 1km (gCO2/km)

Transportation mode	
New railway 1	2,395

Transportation mode	
New railway 1	399

Total fuel consumption (l/y)

Transportation mode	2014	2019	2024	2029	2034
New railway 1	-	-	-	-	-

# Input Sheet

Project name Railway Passenger Electrification

## Road traffic

### Baseline.BEY

Type of input data 2 Select 1 or 2 from pull-down menu and input data to the following cells  
 1 : Passenger number 2 : Total annual trip distance driven by vehicles (vehicle km/year)

2. Total annual trip distance driven by vehicles (Unit: vehicle km/year)

Transportation mode	Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
	2014	2019	2024	2029	2034
Railway 1	Diesel 1	24,500,000	24,500,000	24,500,000	24,500,000
Railway 2					
Railway 3					
Railway 4					
Railway 5					
Total		24,500,000	24,500,000	24,500,000	24,500,000

### Project PEY

Type of input data 1 Select 1 or 2 from pull-down menu and input data to the following cells  
 1 : Passenger number 2 : Total annual trip distance by train (train km/year)

1. Passenger number (Unit: person/year)

Transportation mode	Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
	2014年	2019年	2024年	2029年	2034年
Railway 1	New railway 1	147,000,000	147,000,000	147,000,000	147,000,000
Railway 2					
Railway 3					
Railway 4					
Railway 5					
Total		147,000,000	147,000,000	147,000,000	147,000,000

## Road traffic characteristics

### Baseline.BEY

Transportation mode	No needs for input	No needs for input
Diesel 1		

Transportation mode	Fuel consumption (km/l)	CO2 emission factor
Diesel 1	1,000	2,661

Transportation mode	Mixing rate of biofuel
Diesel 1	0.1

### Project PEY

Transportation mode	Average daily occupancy rate (person/train)	Average daily trip distance of trains (train km/vehicle)
New railway 1	300	50.00

Transportation mode	Electric power consumption (kwh/train km)	CO2 emission factor (g-CO2/kwh)
New railway 1	2,480	640.4

# Calculation Result Sheet

Project name Railway Passenger Electrification

## CO2 emission factor (Unit tCO2/y)

<b>Baseline</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Railway 1	Diesel 1	58,675	58,675	58,675	58,675	58,675
Railway 2						
Railway 3						
Railway 4						
Railway 5						
<b>Total</b>		<b>58,675</b>	<b>58,675</b>	<b>58,675</b>	<b>58,675</b>	<b>58,675</b>

<b>Project</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Railway 1	New railway 1	38,911	38,911	38,911	38,911	38,911
Railway 2						
Railway 3						
Railway 4						
Railway 5						
<b>Total</b>		<b>38,911</b>	<b>38,911</b>	<b>38,911</b>	<b>38,911</b>	<b>38,911</b>

<b>GHG emission reduction</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
		<b>19,764</b>	<b>19,764</b>	<b>19,764</b>	<b>19,764</b>	<b>19,764</b>

## Baseline emission factor/project fuel consumption

### Baseline

Emission factor per 1km (gCO2/km)

Transportation mode	
Diesel 1	-

Emission factor per capita (gCO2/capita)

Transportation mode	
Diesel 1	-

Total fuel consumption (l/y)

Transportation mode	2014	2019	2024	2029	2034
Diesel 1	22,050,000	22,050,000	22,050,000	22,050,000	22,050,000

### Project

Emission factor per 1km (gCO2/km)

Transportation mode	
New railway 1	1,588

Baseline emission factor per capita (gCO2/capita)

Transportation mode	
New railway 1	265

Total electric power consumption (kwh/y)

Transportation mode	2014	2019	2024	2029	2034
New railway 1	-	-	-	-	-

# Input Sheet

Project name Railway Passenger Electrical Powered

## Road traffic

### Baseline.BEY

Type of input data 2 Select 1 or 2 from pull-down menu and input data to the following cell

1 : Passenger number 2 : Total annual trip distance driven by vehicles (vehicle km/year)

2. Total annual trip distance driven by vehicles (Unit: vehicle km/year)

Transportation mode	Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
	2014	2019	2024	2029	2034
Transport mode 1	Bus	132,076,560	132,076,560	132,076,560	132,076,560
Transport mode 2	Automobile	57,941,606	57,941,606	57,941,606	57,941,606
Transport mode 3	Taxi	76,222,222	76,222,222	76,222,222	76,222,222
Transport mode 4					
Transport mode 5					
<b>Total</b>		<b>266,240,388</b>	<b>266,240,388</b>	<b>266,240,388</b>	<b>266,240,388</b>

### Project PEY

Type of input data 1 Select 1 or 2 from pull-down menu and input data to the following cell

1 : Passenger number 2 : Total annual trip distance by new train (train km/year)

1. Passenger number (Unit: person/year)

Transportation mode	Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
	2014	2019	2024	2029	2034
Railway 1	New railway 1	147,000,000	147,000,000	147,000,000	147,000,000
Railway 2					
Railway 3					
Railway 4					
Railway 5					
<b>Total</b>		<b>147,000,000</b>	<b>147,000,000</b>	<b>147,000,000</b>	<b>147,000,000</b>

## Road traffic characteristics

### Baseline.BEY

Transportation mode	No needs for input	No needs for input
Bus		
Automobile		
Taxi		

Transportation mode	Fuel consumption rate(km/l)		CO2 emission factor (gCO2/l)		Fraction	
	Gasoline	Disel	Gasoline	Disel	Gasoline	Disel
Bus	2,646	2,299	2,313	2,661	20%	80%
Automobile	8,547	9,259	2,313	2,661	99%	1%
Taxi	8,547	9,259	2,313	2,661	98%	2%

Transportation mode	Mixing rate of biofuel	
	Gasoline	Disel
Bus	0.1	0.1
Automobile	0.1	0.1
Taxi	0.1	0.1

### Project PEY

Transportation mode	Average daily occupancy rate (person/train)	Average daily trip distance of trains (km/train)
New railway 1	300	50.00

Transportation mode	Electric power consumption (kwh/Passenger km)	CO2 emission factor
New railway 1	2.480	640.4

## Calculation Result Sheet

Project name **Railway Passenger Electrical Powered**

### CO2 emission factor (Unit tCO2/y)

<b>Baseline</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014年	2019年	2024年	2029年	2034年
Transport mode 1	Bus	130,851	130,851	130,851	130,851	130,851
Transport mode 2	Automobile	14,121	14,121	14,121	14,121	14,121
Transport mode 3	Taxi	18,588	18,588	18,588	18,588	18,588
Transport mode 4						
Transport mode 5						
Total		163,559	163,559	163,559	163,559	163,559

<b>Project</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014年	2019年	2024年	2029年	2034年
Railway 1	New railway 1	38,911	38,911	38,911	38,911	38,911
Railway 2						
Railway 3						
Railway 4						
Railway 5						
Total		38,911	38,911	38,911	38,911	38,911

<b>GHG emission reduction</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014年	2019年	2024年	2029年	2034年
		124,649	124,649	124,649	124,649	124,649

### Baseline emission factor/project fuel consumption

#### Baseline

Emission factor per 1km (gCO2/km)

Transportation mode	Gasoline	Deisel	Total
Bus	-	-	-
Automobile	-	-	-
Taxi	-	-	-

Baseline emission factor per capita (gCO2/capita)

Transportation mode	
Bus	-
Automobile	-
Taxi	-

Total fuel consumption for gasoline (l/y)

Transportation mode	2014年	2019年	2024年	2029年	2034年
Bus	8,984,800	8,984,800	8,984,800	8,984,800	8,984,800
Automobile	6,040,245	6,040,245	6,040,245	6,040,245	6,040,245
Taxi	7,865,684	7,865,684	7,865,684	7,865,684	7,865,684

Total fuel consumption for deisel (l/y)

Transportation mode	2014年	2019年	2024年	2029年	2034年
Bus	41,363,690	41,363,690	41,363,690	41,363,690	41,363,690
Automobile	56,321	56,321	56,321	56,321	56,321
Taxi	148,180	148,180	148,180	148,180	148,180

#### Project

Emission factor per 1km (gCO2/km)

Transportation mode	
New railway 1	1,588

Eission factor per capita (gCO2/capita)

Transportation mode	
New railway 1	265

Total electric power consumption (kwh/y)

Transportation mode	2014年	2019年	2024年	2029年	2034年
New railway 1	-	-	-	-	-

**Input Sheet**

Project name **Railway Freight Diesel**

**Road traffic**

**Baseline.BEy**  
 Type of input data **2** Select 1 or 2 from pull-down menu and input data to the following cells.  
 1 : Annual volume of freights transported by vehicle 2 : Total annual trip distance driven by vehicles (vehicle km/year)  
 2. Total annual trip distance driven by vehicles (Unit: vehicle km/year)

Transportation mode	Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
	2014	2019	2024	2029	2034
Transport mode 1 Autotruck 1	1,247,680,953	1,247,680,953	1,247,680,953	1,247,680,953	1,247,680,953
Transport mode 2 Autotruck 2	2,475,059,994	2,475,059,994	2,475,059,994	2,475,059,994	2,475,059,994
Transport mode 3					
Transport mode 4					
Transport mode 5					
<b>Total</b>	<b>3,722,740,947</b>	<b>3,722,740,947</b>	<b>3,722,740,947</b>	<b>3,722,740,947</b>	<b>3,722,740,947</b>

**Project PEy**  
 Type of input data **1** Select 1 or 2 from pull-down menu and input data to the following cells.  
 1 : Annual volume of freights transported by vehicle 2 : Total annual trip distance by new train (train km/year)  
 1. Annual volume of freights transported by vehicle (Unit: ton/year)

Transportation mode	Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
	2014	2019	2024	2029	2034
Railway 1 New railway 1	37,110,000	37,110,000	37,110,000	37,110,000	37,110,000
Railway 2					
Railway 3					
Railway 4					
Railway 5					
<b>Total</b>	<b>37,110,000</b>	<b>37,110,000</b>	<b>37,110,000</b>	<b>37,110,000</b>	<b>37,110,000</b>

**Road traffic characteristics**

**Baseline.BEy**

Transportation mode	No needs for input	No needs for input
Autotruck 1		
Autotruck 2		

Transportation mode	Fuel consumption rate (km/l)		CO2 emission factor (gCO2/l)		Fraction	
	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Autotruck 1	2,646	2,299	2,313	2,661	20%	80%
Autotruck 2	2,646	2,299	2,313	2,661	20%	80%

Transportation mode	Mixing rate of biofuel	
	Gasoline	Diesel
Autotruck 1	0.1	0.1
Autotruck 2	0.1	0.1
	0.1	0.1

**Project PEy**

Transportation mode	Average daily loading (ton/train)	Average daily trip distance driven (km/train)
New railway 1	160.62	379.15

Transportation mode	Fuel consumption (km/l)	CO2 emission factor
New railway 1	1,000	2,661

Transportation mode	Mixing rate of biofuel
New railway 1	0.1

## Calculation Result Sheet

Project name **Railway Freight Diesel**

### CO2 emission factor (Unit tCO2/y)

<b>Baseline</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Transport mode 1	Autotruck 1	1,236,100	1,236,100	1,236,100	1,236,100	1,236,100
Transport mode 2	Autotruck 2	2,452,086	2,452,086	2,452,086	2,452,086	2,452,086
Transport mode 3						
Transport mode 4						
Transport mode 5						
<b>Total</b>		<b>3,688,186</b>	<b>3,688,186</b>	<b>3,688,186</b>	<b>3,688,186</b>	<b>3,688,186</b>

<b>Project</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Railway 1	New railway 1	209,792	209,792	209,792	209,792	209,792
Railway 2						
Railway 3						
Railway 4						
Railway 5						
<b>Total</b>		<b>209,792</b>	<b>209,792</b>	<b>209,792</b>	<b>209,792</b>	<b>209,792</b>

<b>GHG emission reduction</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
		<b>3,478,394</b>	<b>3,478,394</b>	<b>3,478,394</b>	<b>3,478,394</b>	<b>3,478,394</b>

### Baseline emission factor/project fuel consumption

#### Baseline

Emission factor per 1km (gCO2/km)

Transportation mode	Gasoline	Diesel	Total
Autotruck 1	-	-	-
Autotruck 2	-	-	-

Baseline emission factor per capita (gCO2/capita)

Transportation mode	
Autotruck 1	-
Autotruck 2	-

Total fuel consumption for gasoline (l/y)

Transportation mode	2014	2019	2024	2029	2034
Autotruck 1	84,876,255	84,876,255	84,876,255	84,876,255	84,876,255
Autotruck 2	168,371,428	168,371,428	168,371,428	168,371,428	168,371,428

Total fuel consumption for diesel (l/y)

Transportation mode	2014	2019	2024	2029	2034
Autotruck 1	390,748,276	390,748,276	390,748,276	390,748,276	390,748,276
Autotruck 2	775,138,406	775,138,406	775,138,406	775,138,406	775,138,406

#### Project

Emission factor per 1km (gCO2/km)

Transportation mode	
New railway 1	2,395

Emission factor per 1t (gCO2/t)

Transportation mode	
New railway 1	5,653

Total fuel consumption (l/y)

Transportation mode	2014	2019	2024	2029	2034
New railway 1	-	-	-	-	-

# Input Sheet

Project name Railway Freight Electrification

## Road traffic

### Baseline.BE<sub>y</sub>

Type of input data 2 Select 1 or 2 from pull-down menu and input data to the following cells

1: Annual volume of freights transported by vehicle 2: Total annual trip distance by new train(train km/year)

2. Total annual trip distance by new train (Unit: train km/year)

Transportation mode	Opening year	5 yrs after opening	10 yrs after opening	5 yrs after opening	0 yrs after opening
	2014年	2019年	2024年	2029年	2034年
Transport mode 1	Diesel 1	87,600,000	87,600,000	87,600,000	87,600,000
Transport mode 2					
Transport mode 3					
Transport mode 4					
Transport mode 5					
Total		87,600,000	87,600,000	87,600,000	87,600,000

### Project PE<sub>y</sub>

Type of input data 1 Select 1 or 2 from pull-down menu and input data to the following cells

1: Annual volume of freights transported by vehicle 2: Total annual trip distance by new train(train km/year)

1. Annual volume of freights transported by vehicle (Unit: ton/year)

Transportation mode	Opening year	5 yrs after opening	10 yrs after opening	5 yrs after opening	0 yrs after opening
	2014年	2019年	2024年	2029年	2034年
Railway 1	New railway 1	37,110,000	37,110,000	37,110,000	37,110,000
Railway 2					
Railway 3					
Railway 4					
Railway 5					
Total		37,110,000	37,110,000	37,110,000	37,110,000

## Road traffic characteristics

### Baseline.BE<sub>y</sub>

Transportation mode	No needs for input	No needs for input
Diesel 1		

Transportation mode	Fuel consumption (km/l)	CO2 emission factor
Diesel 1	1,000	2,661

Transportation mode	Mixing rate of biofuel
Diesel 1	0.1

### Project PE<sub>y</sub>

Transportation mode	Average daily loading (ton/train)	Average daily trip distance driven (km/train)
New railway 1	160.6	379.2

Transportation mode	Electric power consumption (kwh/train km)	CO2 emission factor (g-CO2/kwh)
New railway 1	2,480	640.4

# Calculation Result Sheet

Project name Railway Freight Electrification

## CO2 emission factor (Unit tCO2/y)

Baseline		Opening year	5 yrs after opening	10 yrs after opening	5 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Transport mode 1	Diesel 1	209,793	209,793	209,793	209,793	209,793
Transport mode 2						
Transport mode 3						
Transport mode 4						
Transport mode 5						
Total		209,793	209,793	209,793	209,793	209,793

Project		Opening year	5 yrs after opening	10 yrs after opening	5 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Railway 1	New railway 1	139,125	139,125	139,125	139,125	139,125
Railway 2						
Railway 3						
Railway 4						
Railway 5						
Total		139,125	139,125	139,125	139,125	139,125

GHG emission reduction		Opening year	5 yrs after opening	10 yrs after opening	5 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
		<b>70,668</b>	<b>70,668</b>	<b>70,668</b>	<b>70,668</b>	<b>70,668</b>

## Baseline emission factor/project fuel consumption

### Baseline

Emission factor per 1km (gCO2/km)

Transportation mode	
Diesel 1	-

Baseline emission factor per capita (gCO2/capita)

Transportation mode	
Diesel 1	-

Total fuel consumption (l/y)

Transportation mode	2014	2019	2024	2029	2034
Diesel 1	78,840,000	78,840,000	78,840,000	78,840,000	78,840,000

### Project

Emission factor per 1km (gCO2/km)

Transportation mode	
New railway 1	1,588

Emission factor per 1t (gCO2/t)

Transportation mode	
New railway 1	3,749

Total electric power consumption (kwh/y)

Transportation mode	2014	2019	2024	2029	2034
New railway 1	-	-	-	-	-

# Input Sheet

Project name Railway Freight Electrical Powered

## Road traffic

### Baseline.BE<sub>y</sub>

Type of input data 1 Select 1 or 2 from pull-down menu and input data to the following cells

1: Annual volume of freights transported by vehicle 2: Total annual trip distance driven by vehicles (vehicle km/year)

1. Annual volume of freights transported by vehicle (Unit: ton/year)

Transportation mode		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
Transport mode 1	Autotruck 1	22,089,847	22,089,847	22,089,847	22,089,847	22,089,847
Transport mode 2	Autotruck 2	15,020,153	15,020,153	15,020,153	15,020,153	15,020,153
Transport mode 3						
Transport mode 4						
Transport mode 5						
Total		37,110,000	37,110,000	37,110,000	37,110,000	37,110,000

### Project PE<sub>y</sub>

Type of input data 1 Select 1 or 2 from pull-down menu and input data to the following cells

1: Annual volume of freights transported by vehicle 2: Total annual trip distance by new train(train km/year)

1. Annual volume of freights transported by vehicle (Unit: ton/year)

Transportation mode		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
Railway 1	New railway 1	37,110,000	37,110,000	37,110,000	37,110,000	37,110,000
Railway 2						
Railway 3						
Railway 4						
Railway 5						
Total		37,110,000	37,110,000	37,110,000	37,110,000	37,110,000

## Road traffic characteristics

### Baseline.BE<sub>y</sub>

Transportation mode	Average daily loading (ton/vehicle)	Average daily trip distance driven (km/vehicle)
Autotruck 1	4.19	236.66
Autotruck 2	0.46	75.80

Transportation mode	Fuel consumption rate (km/l)		CO2 emission factor (gCO2/l)		Fraction	
	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Autotruck 1	2,646	2,299	2,313	2,661	20%	80%
Autotruck 2	2,646	2,299	2,313	2,661	20%	80%

Transportation mode	Mixing rate of biofuel	
	Gasoline	Diesel
Autotruck 1	0.1	0.1
Autotruck 2	0.1	0.1

### Project PE<sub>y</sub>

Transportation mode	Average daily loading (ton/train)	Average daily trip distance driven (km/train)
New railway 1	160.6	379.2

Transportation mode	Electric power consumption (kwh/ train km)	CO2 emission factor (g-CO2/kwh)
New railway 1	2,480	640.4

## Calculation Result Sheet

Project name **Railway Freight Electrical Powered**

### CO2 emission factor (Unit tCO2/y)

<b>Baseline</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Transport mode 1	Autotruck 1	1,236,100	1,236,100	1,236,100	1,236,100	1,236,100
Transport mode 2	Autotruck 2	2,452,086	2,452,086	2,452,086	2,452,086	2,452,086
Transport mode 3						
Transport mode 4						
Transport mode 5						
<b>Total</b>		<b>3,688,186</b>	<b>3,688,186</b>	<b>3,688,186</b>	<b>3,688,186</b>	<b>3,688,186</b>

<b>Project</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Railway 1	New railway 1	139,125	139,125	139,125	139,125	139,125
Railway 2						
Railway 3						
Railway 4						
Railway 5						
<b>Total</b>		<b>139,125</b>	<b>139,125</b>	<b>139,125</b>	<b>139,125</b>	<b>139,125</b>

<b>GHG emission reduction</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
		<b>3,549,061</b>	<b>3,549,061</b>	<b>3,549,061</b>	<b>3,549,061</b>	<b>3,549,061</b>

### Baseline emission factor/project fuel consumption

#### Baseline

Emission factor per 1km (gCO2/km)

Transportation mode	Gasoline	Diesel	Total
Autotruck 1	157	833	991
Autotruck 2	157	833	991

Baseline emission factor per 1t (gCO2/t)

Transportation mode	
Autotruck 1	55,958
Autotruck 2	163,253

Total fuel consumption for gasoline (l/y)

Transportation mode	2014	2019	2024	2029	2034
Autotruck 1	-	-	-	-	-
Autotruck 2	-	-	-	-	-

Total fuel consumption for diesel (l/y)

Transportation mode	2014	2019	2024	2029	2034
Autotruck 1	-	-	-	-	-
Autotruck 2	-	-	-	-	-

#### Project

Emission factor per 1km (gCO2/km)

Transportation mode	
New railway 1	1,588

Emission factor per 1t (gCO2/t)

Transportation mode	
New railway 1	3,749

Total electric power consumption (kwh/y)

Transportation mode	2014	2019	2024	2029	2034
New railway 1	-	-	-	-	-

# Input Sheet

Project name MRT

### Road traffic

#### Baseline.BEY

Type of input data 2 Select 1 or 2 from pull-down menu and input data to the following cells.

1: Passenger number 2: Total annual trip distance driven by vehicles (vehicle km/year)

2. Total annual trip distance driven by vehicles (Unit: vehicle km/year)

Transportation mode	Opening year		5 yrs after opening		10 yrs after opening		5 yrs after opening		20 yrs after opening	
	2014	2019	2019	2024	2024	2029	2029	2034	2034	
Transport mode 1	Bus	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	
Transport mode 2	Automobile	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	
Transport mode 3	Taxi	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	
Transport mode 4										
Transport mode 5										
<b>Total</b>		266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	

#### Project PEY

Type of input data 1 Select 1 or 2 from pull-down menu and input data to the following cells.

1: Passenger number 2: Total annual trip distance by new train (train km/year)

1. Passenger number (Unit: person/year)

Transportation mode	Opening year		5 yrs after opening		10 yrs after opening		5 yrs after opening		20 yrs after opening	
	2014	2019	2019	2024	2024	2029	2029	2034	2034	
MRT1	New MRT	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	
MRT2										
MRT3										
MRT4										
MRT5										
<b>Total</b>		147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	

### Road traffic characteristics

#### Baseline.BEY

Transportation mode	No needs for input	No needs for input
Bus		
Automobile		
Taxi		

Transportation mode	Fuel consumption rate (km/l)		CO2 emission factor (gCO2/l)		Fraction	
	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Bus	2.646	2.299	2.313	2.661	20%	80%
Automobile	8.547	9.259	2.313	2.661	99%	1%
Taxi	8.547	9.259	2.313	2.661	98%	2%

Transportation mode	Mixing rate of biofuel	
	Gasoline	Diesel
Bus	0.1	0.1
Automobile	0.1	0.1
Taxi	0.1	0.1

#### Project PEY

Transportation mode	Average daily occupancy rate (person/train)	Average daily trip distance of trains (km/train)
New MRT	300	50.00

Transportation mode	Electric power consumption (kwh/train km)	CO2 emission factor (g-CO2/kwh)
New MRT	2.244	640.4

Electric power regeneration brake

1 Select 1 or 2 from pull-down menu and input data to the following cells.

1: Use 2: Not use

Transportation mode	Electric power regeneration brake	
	Rate of electric power regeneration	Rate of other train use
New MRT	25%	50%

## Calculation Result Sheet

Project name MRT

### CO2 emission factor (Unit tCO2/y)

<b>Baseline</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Transport mode 1	Bus	130,851	130,851	130,851	130,851	130,851
Transport mode 2	Automobile	14,121	14,121	14,121	14,121	14,121
Transport mode 3	Taxi	18,588	18,588	18,588	18,588	18,588
Transport mode 4						
Transport mode 5						
<b>Total</b>		<b>163,559</b>	<b>163,559</b>	<b>163,559</b>	<b>163,559</b>	<b>163,559</b>

<b>Project</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
MRT1	New MRT	30,807	30,807	30,807	30,807	30,807
MRT2						
MRT3						
MRT4						
MRT5						
<b>Total</b>		<b>30,807</b>	<b>30,807</b>	<b>30,807</b>	<b>30,807</b>	<b>30,807</b>

<b>GHG emission reduction</b>		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
		<b>132,752</b>	<b>132,752</b>	<b>132,752</b>	<b>132,752</b>	<b>132,752</b>

### Baseline emission factor/project fuel consumption

#### Baseline

Emission factor per 1km (gCO2/km)

Transportation mode	Gasoline	Diesel	Total
Bus	-	-	-
Automobile	-	-	-
Taxi	-	-	-

Baseline emission factor per capita (gCO2/capita)

Transportation mode	
Bus	-
Automobile	-
Taxi	-

Total fuel consumption for gasoline (l/y)

Transportation mode	2014	2019	2024	2029	2034
Bus	8,984,800	8,984,800	8,984,800	8,984,800	8,984,800
Automobile	6,040,245	6,040,245	6,040,245	6,040,245	6,040,245
Taxi	7,865,684	7,865,684	7,865,684	7,865,684	7,865,684

Total fuel consumption for diesel (l/y)

Transportation mode	2014	2019	2024	2029	2034
Bus	41,363,690	41,363,690	41,363,690	41,363,690	41,363,690
Automobile	56,321	56,321	56,321	56,321	56,321
Taxi	148,180	148,180	148,180	148,180	148,180

#### Project

Emission factor per 1km (gCO2/km)

Transportation mode	
New MRT	1,257

Emission factor per capita (gCO2/capita)

Transportation mode	
New MRT	210

Total electric power consumption (kwh/y)

Transportation mode	2014	2019	2024	2029	2034
New MRT	-	-	-	-	-

# Input Sheet

5. Mono-rail,  
LRT

Project name Monorail

### Road traffic

#### Baseline.BEY

Type of input data 2 Select 1 or 2 from pull-down menu and input data to the following cells  
 1: Passenger number 2: Total annual trip distance driven by vehicles (vehicle km/year)

2. Total annual trip distance driven by vehicles (Unit: vehicle km/year)

Transportation mode	Opening year		5 yrs after opening		10 yrs after opening		5 yrs after opening		20 yrs after opening	
	2014	2019	2019	2024	2024	2029	2029	2034	2034	2034
Transport mode 1	Bus	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560
Transport mode 2	Automobile	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606
Transport mode 3	Taxi	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222
Transport mode 4										
Transport mode 5										
Total		266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	266,240,388	266,240,388

#### Project PEY

Type of input data 1 Select 1 or 2 from pull-down menu and input data to the following cells  
 1: Passenger number 2: Total annual trip distance by new train (train km/year)

1. Passenger number (Unit: person/year)

Transportation mode	Opening year		5 yrs after opening		10 yrs after opening		5 yrs after opening		20 yrs after opening	
	2014	2019	2019	2024	2024	2029	2029	2034	2034	2034
Monorail 1	New monorail 1	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000
Monorail 2										
Monorail 3										
Monorail 4										
Monorail 5										
Total		147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000

### Road traffic characteristics

#### Baseline.BEY

Transportation mode	No needs for input	No needs for input
Bus		
Automobile		
Taxi		

Transportation mode	Fuel consumption rate (km/l)		CO2 emission factor (gCO2/l)		Fraction	
	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Bus	2.646	2.299	2.313	2.661	20%	80%
Automobile	8.547	9.259	2.313	2.661	99%	1%
Taxi	8.547	9.259	2.313	2.661	98%	2%

Transportation mode	Mixing rate of biofuel	
	Gasoline	Diesel
Bus	0.1	0.1
Automobile	0.1	0.1
Taxi	0.1	0.1

#### Project PEY

Transportation mode	Average daily occupancy rate (person/train)	Average daily trip distance of trains (km/train)
New monorail 1	300	50.00

Transportation mode	Electric power consumption (kwh/train km)	CO2 emission factor (g-CO2/kwh)
New monorail 1	2.587	640.4

## Calculation Result Sheet

Project name Monorail

### CO2 emission factor (Unit tCO2/y)

Baseline		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Transport mode 1	Bus	130,851	130,851	130,851	130,851	130,851
Transport mode 2	Automobile	14,121	14,121	14,121	14,121	14,121
Transport mode 3	Taxi	18,588	18,588	18,588	18,588	18,588
Transport mode 4						
Transport mode 5						
<b>Total</b>		<b>163,559</b>	<b>163,559</b>	<b>163,559</b>	<b>163,559</b>	<b>163,559</b>

Project		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Monorail 1	New monorail 1	40,590	40,590	40,590	40,590	40,590
Monorail 2						
Monorail 3						
Monorail 4						
Monorail 5						
<b>Total</b>		<b>40,590</b>	<b>40,590</b>	<b>40,590</b>	<b>40,590</b>	<b>40,590</b>

GHG emission reduction		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
		<b>122,970</b>	<b>122,970</b>	<b>122,970</b>	<b>122,970</b>	<b>122,970</b>

### Baseline emission factor/project fuel consumption

#### Baseline

Emission factor per 1km (gCO2/km)

Transportation mode	Gasoline	Diesel	Total
Bus	-	-	-
Automobile	-	-	-
Taxi	-	-	-

Baseline emission factor per capita (gCO2/capita)

Transportation mode	
Bus	-
Automobile	-
Taxi	-

Total fuel consumption for gasoline (l/y)

Transportation mode	2014	2019	2024	2029	2034
Bus	8,984,800	8,984,800	8,984,800	8,984,800	8,984,800
Automobile	6,040,245	6,040,245	6,040,245	6,040,245	6,040,245
Taxi	7,865,684	7,865,684	7,865,684	7,865,684	7,865,684

Total fuel consumption for diesel (l/y)

Transportation mode	2014	2019	2024	2029	2034
Bus	41,363,690	41,363,690	41,363,690	41,363,690	41,363,690
Automobile	56,321	56,321	56,321	56,321	56,321
Taxi	148,180	148,180	148,180	148,180	148,180

#### Project

Emission factor per 1km (gCO2/km)

Transportation mode	
New monorail 1	1,657

Emission factor per capita (gCO2/capita)

Transportation mode	
New monorail 1	276

Total electric power consumption (kwh/y)

Transportation mode	2014	2019	2024	2029	2034
New monorail 1	-	-	-	-	-

# Input Sheet

Project name LRT

## Road traffic

### Baseline.BEY

Type of input data 2 Select 1 or 2 from pull-down menu and input data to the following cells  
 1: Passenger number 2: Total annual trip distance driven by vehicles (vehicle km/year)

2. Total annual trip distance driven by vehicles (Unit: vehicle km/year)

Transportation mode		Opening year	5 yrs after opening	10 yrs after opening	5 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
Transport mode 1	Bus	132,076,560	132,076,560	132,076,560	132,076,560	132,076,560
Transport mode 2	Automobile	57,941,606	57,941,606	57,941,606	57,941,606	57,941,606
Transport mode 3	Taxi	76,222,222	76,222,222	76,222,222	76,222,222	76,222,222
Transport mode 4						
Transport mode 5						
Total		266,240,388	266,240,388	266,240,388	266,240,388	266,240,388

### Project PEY

Type of input data 1 Select 1 or 2 from pull-down menu and input data to the following cells  
 1: Passenger number 2: Total annual trip distance by new train (train km/year)

1. Passenger number (Unit: person/year)

Transportation mode		Opening year	5 yrs after opening	10 yrs after opening	5 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
LRT1	New LRT	147,000,000	147,000,000	147,000,000	147,000,000	147,000,000
LRT2						
LRT3						
LRT4						
LRT5						
Total		147,000,000	147,000,000	147,000,000	147,000,000	147,000,000

## Road traffic characteristics

### Baseline.BEY

Transportation mode	No needs for input	No needs for input
Bus		
Automobile		
Taxi		

Transportation mode	Fuel consumption rate (km/l)		CO2 emission factor (gCO2/l)		Fraction	
	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Bus	2.646	2.299	2.313	2.661	20%	80%
Automobile	8.547	9.259	2.313	2.661	99%	1%
Taxi	8.547	9.259	2.313	2.661	98%	2%

Transportation mode	Mixing rate of biofuel	
	Gasoline	Diesel
Bus	0.1	0.1
Automobile	0.1	0.1
Taxi	0.1	0.1

### Project PEY

Transportation mode	Average daily occupancy rate (person/train)	Average daily trip distance of trains (km/train)
New LRT	136	25.00

Transportation mode	Electric power consumption (kwh/train km)	CO2 emission factor (g-CO2/kwh)
New LRT	1.625	640.4

## Calculation Result Sheet

Project name LRT

### CO2 emission factor (Unit tCO2/y)

Baseline		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Transport mode 1	Bus	130,851	130,851	130,851	130,851	130,851
Transport mode 2	Automobile	14,121	14,121	14,121	14,121	14,121
Transport mode 3	Taxi	18,588	18,588	18,588	18,588	18,588
Transport mode 4						
Transport mode 5						
Total		163,559	163,559	163,559	163,559	163,559

Project		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
LRT1	New LRT	28,121	28,121	28,121	28,121	28,121
LRT2						
LRT3						
LRT4						
LRT5						
Total		28,121	28,121	28,121	28,121	28,121

GHG emission reduction		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014	2019	2024	2029	2034
		135,439	135,439	135,439	135,439	135,439

### Baseline emission factor/project fuel consumption

#### Baseline

Emission factor per 1km (gCO2/km)

Transportation mode	Gasoline	Diesel	Total
Bus	-	-	-
Automobile	-	-	-
Taxi	-	-	-

Baseline emission factor per capita (gCO2/capita)

Transportation mode	
Bus	-
Automobile	-
Taxi	-

Total fuel consumption for gasoline (l/y)

Transportation mode	2014	2019	2024	2029	2034
Bus	8,984,800	8,984,800	8,984,800	8,984,800	8,984,800
Automobile	6,040,245	6,040,245	6,040,245	6,040,245	6,040,245
Taxi	7,865,684	7,865,684	7,865,684	7,865,684	7,865,684

Total fuel consumption for diesel (l/y)

Transportation mode	2014	2019	2024	2029	2034
Bus	41,363,690	41,363,690	41,363,690	41,363,690	41,363,690
Automobile	56,321	56,321	56,321	56,321	56,321
Taxi	148,180	148,180	148,180	148,180	148,180

#### Project

Emission factor per 1km (gCO2/km)

Transportation mode	
New LRT	1,041

Emission factor per capita (gCO2/capita)

Transportation	
New LRT	191

Total electric power consumption (kwh/y)

Transportation mode	2014	2019	2024	2029	2034
New LRT	-	-	-	-	-

# Input Sheet

Project name BRT

**Road traffic**

**Baseline.BEY**

Type of input data 2 Select 1 or 2 from pull-down menu and input data to the following cells.

1 : Passenger number 2 : Total annual trip distance driven by vehicles (vehicle km/year)

2. Total annual trip distance driven by vehicles (Unit: vehicle km/year)

Transportation mode	Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
	2014	2019	2024	2029	2034
Transport mode 1	Bus	132,076,560	132,076,560	132,076,560	132,076,560
Transport mode 2	Automobile	57,941,606	57,941,606	57,941,606	57,941,606
Transport mode 3	Taxi	76,222,222	76,222,222	76,222,222	76,222,222
Transport mode 4					
Transport mode 5					
<b>Total</b>		266,240,388	266,240,388	266,240,388	266,240,388

**Project PEY**

Type of input data 1 Select 1 or 2 from pull-down menu and input data to the following cells.

1 : Passenger number 2 : Total annual trip distance by BRT (vehicle km/year)

1. Passenger number (Unit: person/year)

Transportation mode	Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
	2014	2019	2024	2029	2034
BRTBus 1	Trunk1	147,000,000	147,000,000	147,000,000	147,000,000
BRTBus 2					
BRTBus 3					
BRTBus 4					
BRTBus 5					
<b>Total</b>		147,000,000	147,000,000	147,000,000	147,000,000

**Road traffic characteristics**

**Baseline.BEY**

Transportation mode	No needs for input	No needs for input
Bus		
Automobile		
Taxi		

Transportation mode	Fuel consumption rate (km/l)		CO2 emission factor (gCO2/l)		Fraction	
	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Bus	2,646	2,299	2,313	2,661	20%	80%
Automobile	8,547	9,259	2,313	2,661	99%	1%
Taxi	8,547	9,259	2,313	2,661	98%	2%

Transportation mode	Mixing rate of biofuel	
	Gasoline	Diesel
Bus	0.1	0.1
Automobile	0.1	0.1
Taxi	0.1	0.1

**Project PEY**

Transportation mode	Average daily occupancy rate (person/vehicle)	Average daily trip distance of trains (km/vehicle)
Trunk1	136	25.00

Transportation mode	Fuel consumption rate (km/l)		CO2 emission factor (gCO2/l)		Fraction	
	Gasoline	Diesel	Gasoline	Diesel	Gasoline	Diesel
Trunk1	1,637	1,637	2,661	2,661	20%	80%

Transportation mode	Mixing rate of biofuel	
	Gasoline	Diesel
Trunk1	0.1	0.1

## Calculation Result Sheet

Project name BRT

### CO2 emission factor (Unit tCO2/y)

Baseline		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
Transport mode 1	Bus	130,851	130,851	130,851	130,851	130,851
Transport mode 2	Automobile	14,121	14,121	14,121	14,121	14,121
Transport mode 3	Taxi	18,588	18,588	18,588	18,588	18,588
Transport mode 4						
Transport mode 5						
Total		163,559	163,559	163,559	163,559	163,559

Project		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
Transportation mode		2014	2019	2024	2029	2034
BRTBus 1	Trunk1	39,533	39,533	39,533	39,533	39,533
BRTBus 2						
BRTBus 3						
BRTBus 4						
BRTBus 5						
Total		39,533	39,533	39,533	39,533	39,533

GHG emission reduction		Opening year	5 yrs after opening	10 yrs after opening	15 yrs after opening	20 yrs after opening
		2014年	2019年	2024年	2029年	2034年
		124,026	124,026	124,026	124,026	124,026

### Baseline emission factor/project fuel consumption

#### Baseline

Emission factor per 1km (gCO2/km)

Transportation mod	Gasoline	Diesel	Total
Bus	-	-	-
Automobile	-	-	-
Taxi	-	-	-

Baseline emission factor per capita (gCO2/capita)

Transportation mode	
Bus	-
Automobile	-
Taxi	-

Total fuel consumption for gasoline (l/y)

Transportation mod	2014	2019	2024	2029	2034
Bus	8,984,800	8,984,800	8,984,800	8,984,800	8,984,800
Automobile	6,040,245	6,040,245	6,040,245	6,040,245	6,040,245
Taxi	7,865,684	7,865,684	7,865,684	7,865,684	7,865,684

Total fuel consumption for diesel (l/y)

Transportation mod	2014	2019	2024	2029	2034
Bus	41,363,690	41,363,690	41,363,690	41,363,690	41,363,690
Automobile	56,321	56,321	56,321	56,321	56,321
Taxi	148,180	148,180	148,180	148,180	148,180

#### Project

Emission factor per 1km (gCO2/km)

Transportation mod	Gasoline	Diesel	Total
Trunk1	293	1,170	1,463

Emission factor per capita (gCO2/capita)

Transportation	
Trunk1	269

Total fuel consumption for gasoline (l/y)

Transportation mod	2014	2019	2024	2029	2034
Trunk1	-	-	-	-	-

Total fuel consumption for diesel (l/y)

Transportation mod	2014	2019	2024	2029	2034
Trunk1	-	-	-	-	-