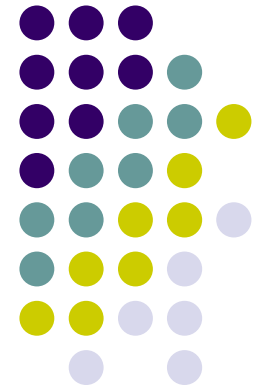


# Collection/estimation of energy and activity indicators in the transport sector

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# Transportation sector in EBT prepared by METI

		Coal	Gasoline	Jet Fuel	Gas Oil /	Heavy Fi	Liquefied	City Gas	Electricit	Total
	Display Unit	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ
<b>Transportation</b>		37	1600887	153693	980936	134797	31349	1554	62294	3003936
<b>Passenger Transportation</b>		37	1340829	135936	138013	39723	29756	121	59804	1773783
<b>Passenger Vehicle</b>		0	1329193	0	69242	0	29756	3	0	1457585
<b>Bus</b>		0	1000	0	56862	0	0	117	0	57980
<b>Motorcycle</b>		0	10552	0	0	0	0	0	0	10552
<b>Railway Passenger Transport</b>		37	0	0	6001	0	0	0	59804	66016
<b>Water Passenger Transport</b>		0	0	0	5907	39723	0	0	0	45631
<b>Air Passenger Transport</b>		0	83	135936	0	0	0	0	0	136020
<b>Freight</b>		0	260058	17757	842923	95074	1594	1434	2490	1230152
<b>Truck and Lorry</b>		0	260048	0	841838	0	1594	1434	0	1107433
<b>Railway Freight Transport</b>		0	0	0	1085	0	0	0	2490	3594
<b>Water Freight Transport</b>		0	0	0	0	95074	0	0	0	101357
<b>Air Freight Transport</b>		0	11	17757	0	0	0	0	0	17768

# Data sources used for the transportation sector in EBT prepared by METI

	Source	Type of statistics
Passenger Vehicle, Bus, Truck and Lorry	Monthly / Annual Statistical Report on Fuel Consumption by <b>Motor Vehicle</b> Transport	General Statistics (Sample survey)
Water Freight Transport	Monthly / Annual Report on <b>Coastwise Vessel</b> Transport	Fundamental Statistics (Inventory survey)
Water Passenger Transport	Diesel oil and heavy fuel oil	Collected based on law of admiralty
Air Transport	Monthly / Annual Report on <b>Air</b> Transport	General Statistics (Inventory survey)
Railway Transport	Monthly / Annual Report on <b>Railway</b> Transport	General Statistics (Inventory survey)
Motorcycle	Estimation combining surveys	Collected by industry organization

# Statistical Report on Fuel Consumption by Motor Vehicle Transport

Coverage	Nationwide
Survey unit	Registered vehicle (Sample survey, about 9,600 each month)
Survey period	Two months (7 days for commercial vehicle, 21 days for private vehicle for each month)
Questionnaire distribution	One week before starting period
Questionnaire collection	By 10 <sup>th</sup> in next month
Publication	Two months later

# Statistical Report on Fuel Consumption by Motor Vehicle Transport

## Feedback (FY2019)

	Number	Rate
Commercial freight vehicle	15,101	about 65%
Commercial passenger vehicle	7,485	about 75%
Small sized passenger private vehicle	28,902	about 50%
Medium and large sized passenger private vehicle	9,039	about 55%

# Sample Questionnaire for Statistical Report on Fuel Consumption by Motor Vehicle Transport

## 1. 自動車の主な用途

自動車の主な用途について、次の1～3のうち該当する番号1つをご記入ください。

1. 人員の輸送用  
3. その他

2. 貨物の輸送用

→

## 2. 休車日数

調査期間中に自動車を使用しなかった日数をご記入ください。

→  日

## 3. 調査期間中の燃料消費量

調査期間中の燃料消費量をご記入ください。

注：燃料の単位がリットル以外の場合は [ ] の中に単位をご記入ください。

千	百	十	一		リットル
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	[ <input type="text"/> ]

## 4. 調査開始時・終了時と調査期間中の走行キロ

① 調査開始時のメーターの数字をご記入ください。

(7) → 

十	万	千	百	十	一	km
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

② 調査終了時のメーターの数字をご記入ください。

(4) → 

十	万	千	百	十	一	km
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

③ 調査期間中の走行キロをご記入ください。

(1)-(7) → 

万	千	百	十	一	km
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

## Main Purpose

1. Passenger
2. Fleet
3. Others

Days unused during period for investigation

Fuel Consumption (in Liter)

Travel Distance indicated on Odometer

Start

End

Travel Distance In Investigation Period

# What is not included in Statistical Report on Fuel Consumption by Motor Vehicle Transport

1. Special-purpose vehicle which do not practice general transportation

- Large-sized special-purpose vehicle (bulldozer)
- Small-sized special-purpose vehicle (forklift, tractor)
- Transportation used for a military purpose
- Transportation mainly used for emergency purpose (fire truck, ambulance, police car)

2. Motor cycle

3. Electric vehicle

# Estimation method(Motor cycle)

Travel distance (km)

divided by fuel efficiency (km/l)

for each type of vehicle

multiply calorific value

$$GC = \sum_i \left( \frac{VKT_i}{FE_i} * GCV \right) \quad VKT_i = \sum_j \left( NV_{i,j} * TD_i * U_{i,j} \right)$$

GC : Fuel consumption [TJ]

VKT : Travel distance for each type of vehicle [million km]

FE : Fuel efficiency for each type of vehicle [km/l]

GCV : Calorific value [TJ/thousand kl]

i : Type of vehicle

VKT : Travel distance for each type of vehicle  
[million km]

NV : Number of vehicles owned by type by  
used years

TD : Travel distance per vehicle by type by  
used years [million km per vehicle]

U : Use coefficient of vehicle by type by used  
years

i : Type of vehicle

j : Used years of vehicle



# Challenge

- Electric vehicle

→ Currently energy consumption and travel distance of EV is not surveyed

→ In terms of energy balance table, charged electricity for EV is included in other sectors.

- Regional consumption

→ How to allocate transportation consumption to region has not been determined