# Introduction to the eco-SPRAY Business

**"We have the wisdom to protect the Earth"**

## EiShin Co., Ltd. / Vector Japan Co., Ltd.

# Company Information

| | |
|---|---|
| Name | EiShin Co., Ltd. |
| Established | 14th December 2009 |
| Capital | ¥46,701,000 (accounting on every March) |
| President | Chie Yasunaga |
| Address | 403, 3-1-3, Higashioi,<br>Shinagawa-ku, Tokyo,140-0011, Japan |
| Business Description | 【eco-friendly business】<br>Production and Distribution of the Environmental Improvement Products |


## "eco-SPRAY" Trademark approved 27th Nov 2012

We obtained the trademark of「eco-SPRAY」.

## Awarded "Higashi-Kuninomiya Magokoro curtural prize" 7th Oct 2015

We were awarded「Higashi-Kuninomiya Magokoro cultural prize.

## Registered on "UNIDO environmental technology database" 16th Nov 2016

「eco-SPRAY」was registered on UNIDO environmental technology database.

## Acquired the Patent of "eco-SPRAY" in Japan 18th May 2018

we acquired the Patent of「eco-SPRAY」.

## Registered on "SDGs Solution Hub" of the Cabinet Office 28th August 2019

「eco-SPRAY」was registered on SDGs Solution Hub of the Cabinet Office database.

## Acquired the Patent of "eco-SPRAY" in USA 16th Feb 2021

# Corporate History

| | |
|---|---|
| Jan, 2009 | Establishment of Company(Capital Stock 7million yen) |
| Oct, 2010 | Started to develop the prototype of eco-SPRAY with the doctor of engineering of Osaka University. |
| Jun, 2011 | Test Sales Launch of eco-SPRAY |
| Nov, 2013 | The distributor in Iran was interviewed and aired on TV TOKYO program called "Mirai Seiki Jipang" |
| Jan, 2014 | Interviewed article was appeared on in-flight magazine of Emirates Airline |
| Feb, 2014 | Allocation of new stocks to a third party(Capital Stock 41.70milion yen) |
| Nov, 2014 | Made a presentation at the world-biggest automobile tradeshow in U.S. |
| Oct, 2015 | Awarded by Higashi-Kuninomiya Magokokoro cultural prize |
| Dec, 2015 | Passed the safety and emission test certified by Chinese government. |
| Jan, 2016 | Started to accept the orders from the domestic taxi companies related to Funai Soken |
| Apr, 2016 | Exclusive sales agreement was entered into and started to accept the orders in China |
| Jul, 2016 | Passed the safety test certified by Ministry of the environment in Nepal |
| Nov, 2016 | Registered on the environmental technology database of UNIDO(United Nations Industrial Development Organization) |
| Mar, 2017 | Officially adopted by the racing team of Audi Japan |
| Feb, 2018 | Exclusive sales agreement was entered into and started to accept the orders in Thailand |
| May, 2018 | Acquired the Patent of eco-SPRAY in Japan |
| Aug, 2019 | 「eco-SPRAY」 was registered on SDGs Solution Hub of the Cabinet Office database. |
| May, 2021 | Acquired the Patent of eco-SPRAY in USA |

# Corporate's Idea and Mission

## Corporate Philosophy

### 「We do what we can for our precious Planet」

Global warming, air pollution, flower extinction, ozone layer destruction, and deforestation: we produce environmental problems throughout the world whilst our economic situation is growing. Sadly, we, humans, are the cause of this disaster. However, our Mother Earth never blames us or even gets angry at one of us. She just silently giving us signals for help. Have we ever noticed those signals or care about them?

Our company EiShin, will care take of nature, human beings, plants, animals and everything surrounding us, and will contribute on finding solution to these environmental problems. We provide solutions by delivering our eco-friendly products in Japan and throughout the world.

## Mission

### 「We have the wisdom to protect the Earth」

eco-SPRAY has been produced to improve the combustion efficiency of vehicle engines.
Nowadays cars are a necessary method of transport. The number of purchased cars and new brand cars are increasing every single year causing pollution issue. PM2.5 is a figure to take seriously in order to protect the planet and its environment.

# Registration in database of Cabinet Office & UNIDO

内閣府
Cabinet Office

SDGs Solution Hub

EiShin Co., Ltd.

STePP

**Energy efficiency: Filtering Technology for Combustion Efficiency and Reducing Air Pollution**

**eco-SPRAY : Energy Efficient & Eco-Friendly Automobile Filter Spray to Increase Mileage and Reduce Emissions**


**Summary**

Eco-SPRAY is one of the environmentally friendly products manufactured by EiShin Co., Ltd., whose mission is to care for nature, humanity, plants and animals. Like most additives claimed to improve car performance, eco-SPRAY cleans the engine. It allows cleaner combustion which translates into improved power and fuel efficiency as well as reduced emissions. The spray can be applied through the air filter from cars powered by gasoline, diesel or LP gas. Since 2012, 300,000 bottles have been distributed in 15 countries including China, Thailand, Canada, USA, UAE, Romania, Korea, Cambodia, Vietnam, Iran, Philippines, Bangladesh, Nepal, Taiwan, and Japan.

国際連合

STePP

UNIDOデータベース
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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Investment an
Promotion

HOME | About us | Activities | Outcomes | Upcoming Programmes

HOME » Activities » Technology Transfer » Environmental Technology Database » Energy efficiency: Filtering Technology for Combustion Efficiency and Reducing Air Pollution

**Activities**

- Delegate Programme
- Technology Transfer
- Environmental Technology Database
  - Low carbon & energy conservation
  - Prevention and destruction of pollution
  - Waste treatment & management
- Seminars & Events
- Capacity Building
- Activities Overseas

Energy efficiency: Filtering Technology for Combustion Efficiency Reducing Air Pollution

EiShin Co., Ltd.


UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION
2022
GLOBAL CALL
UNIDO GLOBAL CALL 2022
Honorable Mention Certificate
This is to certify that
EISHIN
is the Honorable Mention of UNIDO Global Call 2022
in Green Growth Category.
Issued by
United Nations Industrial Development Organization
Investment & Technology Promotion Office
(ITPO) Shanghai, China
SJTU-UNIDO
Joint Institute of
Inclusive & Sustainable Industrial Development
Issued on: January 2023

# What is eco-SPRAY?

## "eco-SPRAY" is the innovative product focusing on "Air" ratio of the Theoretical Air-Fuel Ratio.

| Theoretical Air-Fuel Ratio | |
|---|---|
| Gasoline | 14.7 : 1 |
| Diesel | 14.9 : 1 |
| L P G | 15.7 : 1 |

Improve fuel efficiency

↓

Decrease emission + Accelerate car power

↓

Improve and get better mileage


30cc 90cc

Activation of air which is caused by the action of natural materials of eco-SPRAY removes carbon sludge and static electricity in the engine in order to improve the fuel efficiency.
Modern vehicles are controlled and monitored by the computer called by ECU. eco-SPRAY activates the function every censors equipped on the intake and exhaust parts and also removes the stains out of the cylinder and the port which the engine oil cannot clean.
And eventually eco-SPRAY keeps the engine clean and get close to the balance of 14:7 of the theoretical air-fuel ratio to maximize the performance vehicles genuinely have.

*What is eco-SPRAY?*

# Spray made with 100% natural materials


Ingredients

- Fishery products (Amino peptide)
- Seaweed (Fucoidan)
- Hinoki sap (Hinokitiol)
- WOX + HT Silver



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# Characteristic of Eco-SPRAY materials (patented in US and Japan)

- Oxygen supplementary water WOX (substance patented in Japan, the United States and China)

It makes it easier to penetrate the filter and sends oxygen into the engine to promote combustion.

- Hinokitiol

Its antibacterial properties prevent the growth of bacteria, and it emits a pleasant cypress scent.

- Fucoidan

L-fucose, a sticky component of fucoidan, suppresses the scattering of tourmaline attached to the filter and allows it to remain on the filter for a long time.

- Ore (Tourmaline)

The fine powder adheres and fixes to the air filter, and due to the air that passing through the air filter, the moisture (water vapor) in the air passing through the air filter is decomposed into hydroxyl ions (H3O2-) and hydrogen gas (H2). This phenomenon occurs, and the cleaning effect in the combustion chamber of the engine due to the surfactant action of hydroxyl ions and the combustion effect of hydrogen gas cause the fuel to burn in a form close to complete combustion.

- HT Silver (nano silver solution)

It has strong antibacterial and antiviral effects and prevents the growth of bacterial in liquids.

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## Eco-SPRAY

By applying it to the air filter and allowing it to penetrate, it sends air that is easily combustible into the engine, bringing the fuel the would normally not be completely combusted to a state of complete combustion.

① Also, it removes the burnt residue generated inside the engine.

② It keeps the inside of the  engine clean by discharging it without accumulating it inside.

By approaching complete combustion, exhaust gas is reduced. Because the power of the explosion increases, you will reach the target speed quickly when you step on the accelerator. And if you drive at the same speed before and after using eco-SPRAY, your fuel efficiency will increase.

① Reason for approaching complete combustion → Proven by JATA evidence.

② Reason for emitting → Black soot that comes out when spraying after using eco-SPRAY.

# eco-SPRAY's Application Method

## Just spray one entire bottle of eco-SPRAY to the air filter!

According to the types of car, the cover of the engine room or the air cleaner box might be different.

※Target : Applicable on Gasoline・Gas・Diesel cars

※Continuous Standard Result : 5,000km mileage (6 month travelling distance)

※Warnings: see the handling constructions for details.




# Official Evidence - Emission Test

JATA Japan Automobile Transport Technology Association

*Gasoline Automobile Performance Improvement Measurement Device Examination Data*

Examiner: Public Interest Incorporated Foundation
Japan Automobile Transport Technology Association

Name of the device: eco-SPRAY
Name of the examinee: Eishin Co., Ltd.
Name of the inventor: Eishin Co., Ltd.

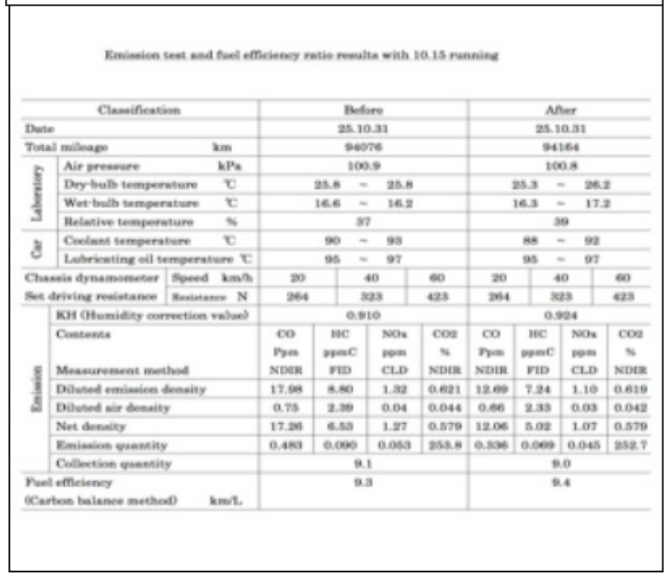
Content of the examination

As the request of Eishin Co., Ltd, emission test and Gasoline 10.15 mode emission test was held before and after applying the product (device) called eco-SPRAY.

Examination was tried before applying the device and after applying in order. This device was applied both sides of air cleaner 30cc and dried for 20 minutes. Also, both before and after applying device, idled the car for 5 minutes, accelerate the car (6500rpm times 5), run in 80km/h for 40 minutes, accelerate the car (6500rpm times 5), and cooling the car (stopped the engine) for 20minutes.

Examined car

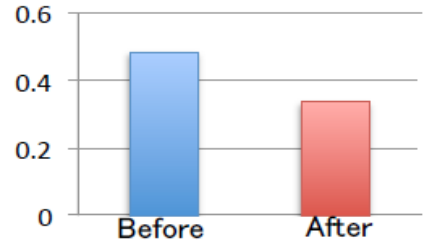
Car name/model: Toyota E-MCV20W
Car number: MCV20-0008052
Muffler model: 1MZ
Total engine displacement: 2.994 L
Official no-load revolving speed: (NO 700
Weight of car: 1550 kg
Weight of examined car: 1660 kg
Equivalent inertia weight: 1750 kg



Emission test and fuel efficiency ratio results with 10.15 running

| Classification | | | Before | | | | After | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Date | | | 25.10.31 | | | | 25.10.31 | | | |
| Total mileage | | km | 94076 | | | | 94164 | | | |
| Laboratory | Air pressure | kPa | 100.9 | | | | 100.8 | | | |
| | Dry-bulb temperature | ℃ | 25.8 ~ 25.8 | | | | 25.3 ~ 26.2 | | | |
| | Wet-bulb temperature | ℃ | 16.6 ~ 16.2 | | | | 16.3 ~ 17.2 | | | |
| | Relative temperature | % | 37 | | | | 39 | | | |
| Car | Coolant temperature | ℃ | 90 ~ 93 | | | | 88 ~ 92 | | | |
| | Lubricating oil temperature | ℃ | 95 ~ 97 | | | | 95 ~ 97 | | | |
| Chassis dynamometer | Speed | km/h | 20 | 40 | 60 | | 20 | 40 | 60 | |
| Set driving resistance | Resistance | N | 264 | 323 | 423 | | 264 | 323 | 423 | |
| | KH (Humidity correction value) | | 0.910 | | | | 0.924 | | | |
| Emission | Contents | | CO | HC | NOx | CO2 | CO | HC | NOx | CO2 |
| | | | Ppm | ppmC | ppm | % | Ppm | ppmC | ppm | % |
| | Measurement method | | NDIR | FID | CLD | NDIR | NDIR | FID | CLD | NDIR |
| | Diluted emission density | | 17.98 | 8.80 | 1.32 | 0.621 | 12.69 | 7.24 | 1.10 | 0.619 |
| | Diluted air density | | 0.75 | 2.39 | 0.04 | 0.044 | 0.66 | 2.33 | 0.03 | 0.042 |
| | Net density | | 17.26 | 6.53 | 1.27 | 0.579 | 12.06 | 5.02 | 1.07 | 0.579 |
| | Emission quantity | | 0.483 | 0.090 | 0.053 | 253.8 | 0.336 | 0.069 | 0.045 | 252.7 |
| | Collection quantity | | 9.1 | | | | 9.0 | | | |
| Fuel efficiency (Carbon balance method) | | km/L | 9.3 | | | | 9.4 | | | |

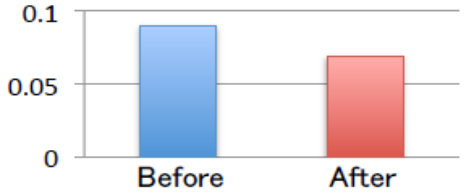
**CO ppm NDIR**




This result appears when the combustion is done with a lack of oxygen, which means the combustion was incomplete. It is very harmful to human body.

**30. 4% DOWN**

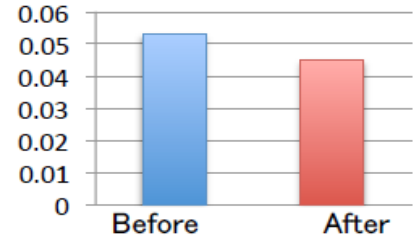
**HC ppmC FID**




This result occurs when the combustion is done while burning. When the combustion efficiency is improved, the numerical value of HC decreases.

**23. 3% DOWN**

**NOx ppm CLD**




Nitrogen oxide is produced when it is combusted in good state or in good efficiency.

**15. 09% DOWN**

# Evidence from Trusted Third Parties - Engine function

**Audi Team DreamDrive #45**
**LIQUI MOLY RS3**
**Driver : Shozo Tagahara**

Compared to the 1st session I did not use "eco-SPRAY", I felt that my engine revved batter at a lower RPM.
I also heard that my engine sounded differently when revving.
After applying eco-SPRAY during this race, we received a very great result as, the fuel combustion has improved, the oiling pit has decreased.

"eco-SPRAY" is the great product because it is easy for us to use, safe and effective for the vehicles.
We would like to keep using this product and have more effective data which proves the effect of eco-SPRAY and leads us to win on every race.

# Evidence from Trusted Third Parties – Engine function

## Technical Test Report

"This chart shows the comparison data of the car's performance before and after applying eco-SPRAY.
The yellow line indicates the engine prior to using eco-SPRAY and the red line is marked by the engine after its application.

★The first graph: RPMs
The higher the line is, the higher the engine is turning. At the middle point in the graph, the yellow and the red line separate.
This is an important point as it represents where the quality improvement of the engine is seen. Even if the car accelerated at the same time, the red line is higher by 100 to 200 rpms, which means the power of the engine got improved as the speed increased.

★The second graph: Speed
There is a slight difference compared with the first graph, the red line shows an improved speed of roughly 2km compared to the yellow line.

★The third graph: the difference of Lap time
According to the graph, as the car began to accelerate and gear up, the red line shows the car went faster by 0.040 seconds compared to the yellow line.

From this graph, we can see that eco-SPRAY has a capablity of the effect of improving engine performances.

Summary of this test report

"eco-SPRAY" is identified as the effect of improving the function of vehicle through recognizing the difference on the data logger from this testing.
The normal vehicles have much more effects than the racing cars because There is a great effect for the racing cars which are really sensitive with the difference since it competes a tenth of second.

Audi Team DreamDrive Technical Director

# eco-SPRAY Gas Mileage Improvement Data

| REDUCED COST OF JEEPNEY'S FUEL BY USING ECO-SPRAY | | |
|---|---|---|
| **Calculation per Jeepney (1)** | | |
| Mileage per day | 150 | Km |
| Estimated fuel consumption | 6 | Km/L |
| Amount of diesel used per day (150 ÷ 6) | 25 | L |
| Diesel unit price | 55 | PHP/L |
| Money spent on diesel per day (25 x 55) | 1,375 | PHP |
| **Calculation per 100 Jeepneys** | | |
| Mileage per day of 100 Jeepneys (150 x 100) | 15,000 | Km |
| Estimated fuel consumption | 6 | Km/L |
| Amount of diesel used per day (15,000 ÷ 6) | 2,500 | L |
| Diesel unit price | 55 | PHP/L |
| Money spend in diesel per day (2,500 x 55) | 137,500 | PHP |
| Mileage in a month *25days* (15,000 x 25) | 375,000 | Km |
| Amount of diesel used per month (375,000 ÷ 6) | 62,500 | L |
| Money spent on diesel per month (62,500 x 55) | 3,437,500 | PHP |
| **ONE (1) YEAR COMPUTATION** | | |
| 3,437,500 x 12 (months) | 41,250,000 | PHP |
| Fuel efficiency improved to 10% | 4,125,000 | PHP |
| 1bottle of Eco-SPRAY = 10,000km | 30cc per bottle | 1,400PHP/bottle |
| 375,000 x 12 ÷ 10,000 | 450 | Bottle/s |
| 450 x 1,400 (unit price x quantity) | 630,000 | PHP |
| **COST REDUCTION PER YEAR: 4,125,000PHP - 630,000PHP = 3,495,000PHP** | | |

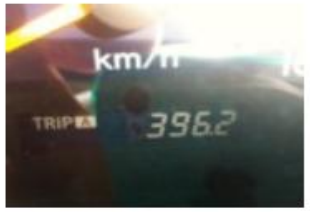
# eco-SPRAY Gas Mileage Improvement Data

| REDUCED COST OF TRUCK'S FUEL BY USING ECO-SPRAY | | |
|---|---|---|
| **Calculation per Truck (1)** | | |
| Mileage per day | 200 | Km |
| Estimated fuel consumption | 4 | Km/L |
| Amount of diesel used per day (200 ÷ 4) | 50 | L |
| Diesel unit price | 55 | PHP/L |
| Money spent on diesel per day (50 x 55) | 2,750 | PHP |
| **Calculation per 100 Trucks** | | |
| Mileage per day of 100 Trucks (100 x 200) | 20,000 | Km |
| Estimated fuel consumption | 4 | Km/L |
| Amount of diesel used per day (20,000 ÷ 4) | 5,000 | L |
| Diesel unit price | 55 | PHP/L |
| Money spend in diesel per day (5,000 x 55) | 275,000 | PHP |
| Mileage in a month *25days* (20,000 x 25) | 500,000 | Km |
| Amount of diesel used per month (500,000 ÷ 4) | 125,000 | L |
| Money spent on diesel per month (125,000 x 55) | 6,875,000 | PHP |
| **ONE (1) YEAR COMPUTATION** | | |
| 6,875,000 x 12 (months) | 82,500,000 | PHP |
| Fuel efficiency improved to 10% | 8,250,000 | PHP |
| 1bottle of Eco-SPRAY = 10,000km | 90cc per bottle | 3,650PHP/bottle |
| 500,000 x 12 ÷ 10,000 | 600 | Bottle/s |
| 600 x 3,650 (unit price x quantity) | 2,190,000 | PHP |
| **COST REDUCTION PER YEAR: 8,250,000PHP – 2,190,000PHP = 6,060,000PHP** | | |

# eco-SPRAY Actual Driving Fuel Efficiency Test Report

Before

396.2km




31.48L

After

560km


37.63L

| Name | Keisuke Yoshikawa | |
|---|---|---|
| Prefecture | Ishikawa | |
| Manufacturer/Model | Toyota/Corolla Fielder | |
| Model year | 2000 | |
| Total mileage | 120,000km | |
| Fuel efficiency BEFORE applying eco-SPRAY | 12.58 | Fuel efficiency improvement 18.3% |
| Fuel efficiency AFTER applying eco-SPRAY | 14.88 | |

～Comment～

I bought this with no expectation. I did not see any visible results, but the increased fuel efficiency surprised me. Easily worth the money!

# eco-SPRAY Actual Driving Fuel Efficiency Test Report

Toyota Prius alpha

Before


After (1st time)


※満タン法燃費測定による計測(継続計測)

| | |
|---|---|
| 2nd : 25. 2km | 6th : 23. 8km |
| 3rd : 25. 4km | 7th : 24. 7km |
| 4th : 24. 7km | 8th : 24. 4km |
| 5th : 24. 4km | 9th : 23. 7km |

| | | |
|---|---|---|
| Name | Mr. T | |
| Prefecture | Aichi Prefecture | |
| Manufacturer/Model | Toyota/Prius alpha | |
| Model year | 2012 | |
| Total mileage | 10,611km | |
| Fuel efficiency BEFORE applying eco-SPRAY | 21.9km | Fuel efficiency improvement 13.7% |
| Fuel efficiency AFTER applying eco-SPRAY | 24.9km | |

～Comment～

I kept checking the fuel efficiency meter after application, took record of it, and analyzed these results. I am just speechless about them. I am very happy and satisfied with my car getting better than its original fuel efficiency. Let's see how long it will last and I will take record of it as well.



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# eco-SPRAY Emission Test Report

## Toyota Estima　Mileage:242,000km




Apply eco-SPRAY

**Before**


**After**


| | | | |
|---|---|---|---|
| CO | 0.06 | **CO** | **0.02** |
| HC | 81 | **HC** | **0** |

## Daihatsu HIJET　Mileage : 123,259km

**Before**


**After**


| | | | |
|---|---|---|---|
| CO | 0.43 | **CO** | **0.09** |
| HC | 370 | **HC** | **10** |

# Demonstration of Eco-SPRAY at LTFRB Headquarter (Quezon City, Philippines)


Emission Test being conducted and explaining it to the LTFRB's Engineers

# Demonstration of Eco-SPRAY at LTFRB Headquarter (Quezon City, Philippines)

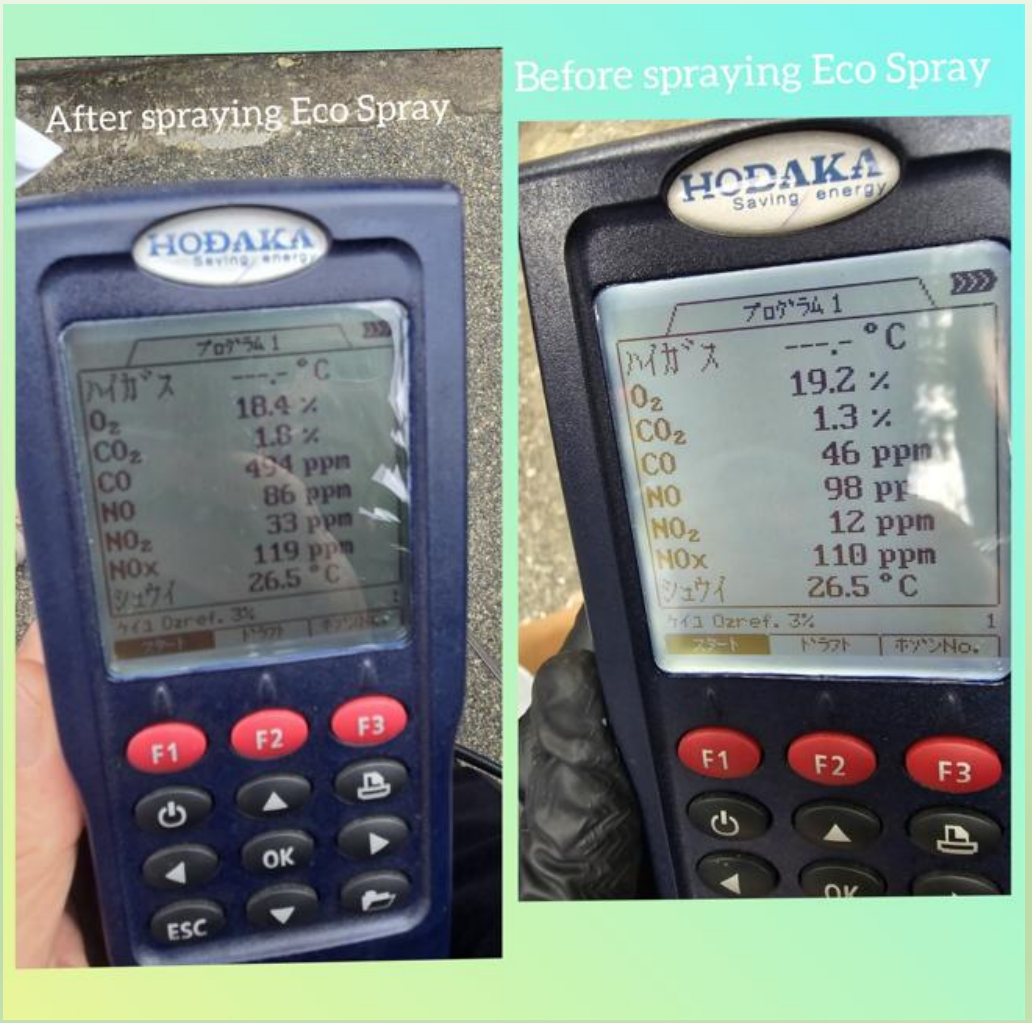


Before and After results of using Eco-SPRAY

# Demonstration of Eco-SPRAY at Baguio City Hall Environmental Department (Baguio City, Philippines)

Application of Eco-SPRAY to the Air filter of the car

# Demonstration of Eco-SPRAY at Baguio City Hall Environmental Department (Baguio City, Philippines)


Before and After results of using Eco-SPRAY

# Fuel efficiency / CO2 emission (City: Japan)

| Country | No. | Model/Year | Type of Fuel (L) | Rate of Fuel Efficiency | Fuel Efficiency | | Co2 Emissions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Before | After | Co2 emissions/km difference (B /A) | If 30,000km travel kg-CO2/L | If 50,000km travel kg-CO2/L | If 100,000km travel kg-CO2/L |
| Japan | 1 | Nissan Caravan | Gasoline | 120.2% | 6.35 | 7.63 | -0.0613 | -1838.7426 | -3064.5711 | -6129.1421 |
| Japan | 3 | Nissan Caravan | Gasoline | 112.0% | 6.83 | 7.65 | -0.0364 | -1092.2975 | -1820.4959 | -3640.9918 |
| Japan | 4 | Nissan Caravan | Gasoline | 104.3% | 7.01 | 7.31 | -0.0136 | -407.4695 | -679.1158 | -1358.2316 |
| Japan | 5 | Nissan Caravan | Gasoline | 106.2% | 7.05 | 7.49 | -0.0193 | -579.9506 | -966.5843 | -1933.1686 |
| Japan | 6 | Nissan Caravan | Gasoline | 105.5% | 6.76 | 7.13 | -0.0178 | -534.2872 | -890.4786 | -1780.9572 |
| Japan | 7 | Nissan Caravan | Gasoline | 108.8% | 6.78 | 7.38 | -0.0278 | -834.5924 | -1390.9874 | -2781.9747 |
| Japan | 8 | Nissan Caravan | Gasoline | 116.0% | 6.07 | 7.04 | -0.0527 | -1579.8637 | -2633.1062 | -5266.2124 |
| Japan | 9 | Nissan Caravan | Gasoline | 110.8% | 6.58 | 7.29 | -0.0343 | -1030.1825 | -1716.9708 | -3433.9417 |
| Japan | 10 | Nissan Caravan | Gasoline | 106.9% | 6.53 | 6.98 | -0.0229 | -687.1525 | -1145.2542 | -2290.5084 |
| Japan | 11 | Nissan Caravan | Gasoline | 112.8% | 6.72 | 7.58 | -0.0392 | -1175.0848 | -1958.4747 | -3916.9494 |
| Japan | 14 | Nissan Caravan | Gasoline | 104.9% | 7.34 | 7.7 | -0.0148 | -443.3278 | -738.8796 | -1477.7593 |
| Japan | 16 | Isuzu Elf | Diesel | 150.3% | 5.27 | 7.92 | -0.1663 | -4990.3686 | -8317.2810 | -16634.5619 |
| Japan | 17 | Isuzu Como | Gasoline | 130.2% | 4.94 | 6.43 | -0.1088 | -3264.8076 | -5441.3459 | -10882.6918 |
| Japan | 18 | Succeed | Gasoline | 121.6% | 6.95 | 8.45 | -0.0593 | -1777.7021 | -2962.8368 | -5925.6737 |
| Japan | 19 | Zendai Japan Taxi | LPG | 108.4% | 11.89 | 12.89 | -0.0196 | -587.2293 | -978.7155 | -1957.4311 |
| Japan | 20 | Zendai Japan Taxi | LPG | 105.9% | 11.89 | 12.59 | -0.0140 | -420.8555 | -701.4258 | -1402.8515 |
| Japan | 21 | Zendai Japan Taxi | LPG | 110.1% | 11.89 | 13.09 | -0.0231 | -693.9086 | -1156.5143 | -2313.0286 |
| Japan | 22 | Zendai Japan Taxi | LPG | 93.4% | 11.89 | 11.11 | 0.0177 | 531.4240 | 885.7067 | 1771.4135 |
| Japan | 23 | Toyota Crown Comfort | LPG | 108.2% | 5.61 | 6.07 | -0.0405 | -1215.7626 | -2026.2710 | -4052.5421 |
| Japan | 24 | Toyota Crown Comfort | LPG | 113.2% | 6.23 | 7.05 | -0.0560 | -1680.2705 | -2800.4508 | -5600.9016 |
| Japan | 25 | Toyota Prius α | LPG | 120.8% | 13.3 | 16.06 | -0.0388 | -1162.9322 | -1938.2204 | -3876.4408 |
| Japan | 26 | Crown Comfort | LPG | 101.3% | 6.13 | 6.21 | -0.0063 | -189.1387 | -315.2312 | -630.4624 |
| Japan | 27 | JAP Taxi | LPG | 106.0% | 13.76 | 14.58 | -0.0123 | -367.8582 | -613.0969 | -1226.1939 |
| Japan | 28 | SP Deluxe | LPG | 102.5% | 5.67 | 5.81 | -0.0127 | -382.4823 | -637.4705 | -1274.9410 |
| Japan | 29 | SP Deluxe | LPG | 108.6% | 5.22 | 5.67 | -0.0456 | -1368.3634 | -2280.6057 | -4561.2115 |
| Japan | 30 | Limousine Bus | Diesel | 117.2% | 89.3 | 104.69 | -0.0043 | -129.3911 | -215.6519 | -431.3038 |
| Japan | 31 | Crown Comfort | LPG | 168.4% | 3.54 | 5.96 | -0.3441 | -10323.0577 | -17205.0961 | -34410.1922 |
| Japan | 32 | Crown Comfort | LPG | 175.7% | 3.21 | 5.64 | -0.4027 | -12079.9364 | -20133.2273 | -40266.4546 |
| Japan | 33 | Isuzu Elf 2t | Diesel | 108.4% | 6.57 | 7.12 | -0.0308 | -924.1445 | -1540.2408 | -3080.4816 |
| Japan | 34 | Mitsubishi 5t | Diesel | 120.0% | 5.3 | 6.36 | -0.0824 | -2471.6981 | -4119.4969 | -8238.9937 |

# Fuel efficiency / CO2 emission (City: Japan)

| Country | No. | Model/Year | Type of Fuel (L) | Rate of Fuel Efficiency | Fuel Efficiency | | Co2 Emissions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Before | After | Co2 emissions/km difference (B /A) | If 30,000km travel kg-CO2/L | If 50,000km travel kg-CO2/L | If 100,000km travel kg-CO2/L |
| Japan | 35 | Toyota Prius α /2012 | Gasoline | 113.7% | 21.9 | 24.9 | -0.0128 | -382.9015 | -638.1691 | -1276.3382 |
| Japan | 36 | Toyota Prius α /2009 | Gasoline | 108.4% | 25 | 27.1 | -0.0072 | -215.7343 | -359.5572 | -719.1144 |
| Japan | 37 | Nissan NOTE/2009 | Gasoline | 104.0% | 20 | 20.8 | -0.0045 | -133.8462 | -223.0769 | -446.1538 |
| Japan | 38 | VOLVO・V70 | Gasoline | 123.1% | 6.5 | 8 | -0.0669 | -2007.6923 | -3346.1538 | -6692.3077 |
| Japan | 39 | Toyota Alphard/2004 | Gasoline | 121.7% | 8.3 | 10.1 | -0.0498 | -1494.4531 | -2490.7551 | -4981.5102 |
| Japan | 40 | Nissan X-Trail/2008 | Gasoline | 114.9% | 8.7 | 10 | -0.0347 | -1040.0000 | -1733.3333 | -3466.6667 |
| Japan | 41 | Toyota Wish | Gasoline | 108.3% | 9.6 | 10.4 | -0.0186 | -557.6923 | -929.4872 | -1858.9744 |
| Japan | 42 | Toyota Wish/2003 | Gasoline | 121.0% | 16.7 | 20.2 | -0.0241 | -722.1201 | -1203.5335 | -2407.0671 |
| Japan | 43 | Toyoa Vitz /2000 | Gasoline | 126.0% | 15.4 | 19.4 | -0.0311 | -931.8517 | -1553.0861 | -3106.1722 |
| Japan | 44 | Suzuki Every/1996 | Gasoline | 129.8% | 8.4 | 10.9 | -0.0633 | -1900.3932 | -3167.3220 | -6334.6439 |
| Japan | 45 | Honda Odyssey/1998 | Gasoline | 147.7% | 6.5 | 9.6 | -0.1153 | -3457.6923 | -5762.8205 | -11525.6410 |
| Japan | 46 | Toyota Camry /2007 | Gasoline | 118.8% | 8 | 9.5 | -0.0458 | -1373.6842 | -2289.4737 | -4578.9474 |
| Japan | 47 | Nissan Cube /2000 | Gasoline | 123.5% | 8.5 | 10.5 | -0.0520 | -1559.6639 | -2599.4398 | -5198.8796 |
| Japan | 48 | Daihatsu Cube/2010 | Gasoline | 105.0% | 20 | 21 | -0.0055 | -165.7143 | -276.1905 | -552.3810 |
| Japan | 49 | Suzuki Wagon R/2010 | Gasoline | 122.0% | 16.8 | 20.5 | -0.0249 | -747.7352 | -1246.2253 | -2492.4506 |
| Japan | 50 | Daihatsu Mira/2012 | Gasoline | 112.6% | 21.5 | 24.2 | -0.0120 | -361.1762 | -601.9604 | -1203.9208 |
| Japan | 51 | Mitsubishi Dion | Gasoline | 119.3% | 13.5 | 16.1 | -0.0278 | -832.5742 | -1387.6236 | -2775.2473 |
| Japan | 52 | Benz C240/1998 | Gasoline | 111.5% | 9.6 | 10.7 | -0.0248 | -745.3271 | -1242.2118 | -2484.4237 |
| Japan | 53 | Benz S320/1999 | Gasoline | 113.5% | 11.1 | 12.6 | -0.0249 | -746.4607 | -1244.1012 | -2488.2025 |
| Japan | 54 | Mitsubishi Mini Cab 2007 | Gasoline | 114.3% | 10.5 | 12 | -0.0276 | -828.5714 | -1380.9524 | -2761.9048 |
| Japan | 55 | Nissan Rasheen /1999 | Gasoline | 123.5% | 8.5 | 10.5 | -0.0520 | -1559.6639 | -2599.4398 | -5198.8796 |
| Japan | 56 | Subaru・Legacy2.0i/2003 | Gasoline | 138.8% | 8.5 | 11.8 | -0.0763 | -2289.9302 | -3816.5503 | -7633.1007 |
| Japan | 57 | WV Golf /2004 | Gasoline | 118.1% | 10.2 | 12.05 | -0.0349 | -1047.5958 | -1745.9930 | -3491.9860 |
| Japan | 58 | Nissan Cube | Gasoline | 113.8% | 10.9 | 12.4 | -0.0257 | -772.4179 | -1287.3631 | -2574.7263 |
| Japan | 59 | Matsuda Demio | Gasoline | 121.4% | 7 | 8.5 | -0.0585 | -1754.6218 | -2924.3697 | -5848.7395 |
| Japan | 60 | Suzuki Jimny JB23W/2008 | Gasoline | 114.3% | 7 | 8 | -0.0414 | -1242.8571 | -2071.4286 | -4142.8571 |
| Japan | 61 | Toyota Estima 2400cc/2001 | Gasoline | 103.8% | 5.04 | 5.23 | -0.0167 | -501.6844 | -836.1407 | -1672.2814 |
| Japan | 62 | VW Polo | Gasoline | 114.1% | 8 | 9.13 | -0.0359 | -1076.7798 | -1794.6331 | -3589.2662 |
| Japan | 63 | Isuzu Elf 2 t | Diesel | 114.9% | 7.07 | 8.12 | -0.0479 | -1437.5945 | -2395.9908 | -4791.9817 |
| Japan | 64 | Hino Ranger 3 t | Diesel | 111.4% | 7.02 | 7.82 | -0.0382 | -1145.4303 | -1909.0505 | -3818.1010 |

# Fuel efficiency / CO2 emission (City: Japan)

| Country | No. | Model/Year | Type of Fuel (L) | Rate of Fuel Efficiency | Fuel Efficiency | | Co2 Emissions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Before | After | Co2 emissions/km difference (B /A) | If 30,000km travel kg-CO2/L | If 50,000km travel kg-CO2/L | If 100,000km travel kg-CO2/L |
| Japan | 65 | Isuzu Foward 4 t | Diesel | 111.0% | 5.38 | 5.97 | -0.0481 | -1443.8363 | -2406.3938 | -4812.7876 |
| Japan | 66 | Hino Truck 4 t | Diesel | 109.2% | 7.1 | 7.75 | -0.0309 | -928.4871 | -1547.4784 | -3094.9568 |
| Japan | 67 | Isuzu Fowerd | Diesel | 117.6% | 7.03 | 8.27 | -0.0559 | -1676.4222 | -2794.0370 | -5588.0739 |
| Japan | 68 | Isuzu Fowerd | Diesel | 104.2% | 6.85 | 7.14 | -0.0153 | -458.3348 | -763.8914 | -1527.7828 |
| Japan | 69 | Hino Truck 4 t | Diesel | 109.3% | 7.1 | 7.76 | -0.0315 | -945.4708 | -1575.7847 | -3151.5695 |
| Japan | 70 | Hino Truck 5 t | Diesel | 110.3% | 6.8 | 7.50 | -0.0360 | -1078.8235 | -1798.0392 | -3596.0784 |
| Japan | 71 | Hino Truck 6 t | Diesel | 106.6% | 6.81 | 7.26 | -0.0238 | -715.4039 | -1192.3399 | -2384.6798 |
| Japan | 72 | Toyota HiAce/3000CC/2013 | Gasoline | 113.4% | 9.11 | 10.33 | -0.0301 | -902.2988 | -1503.8313 | -3007.6626 |
| Japan | 73 | Toyota HiAce/3000CC/2102 | Gasoline | 119.1% | 4.4 | 5.24 | -0.0845 | -2535.7391 | -4226.2318 | -8452.4636 |
| Japan | 74 | Toyota HiAce/3000CC/2012 | Gasoline | 120.5% | 5.5 | 6.63 | -0.0719 | -2156.8079 | -3594.6798 | -7189.3597 |
| Japan | 75 | Isuzu Elf 100 | Gasoline | 105.5% | 6.86 | 7.24 | -0.0178 | -532.5129 | -887.5215 | -1775.0431 |
| Japan | 76 | Isuzu Elf 100 | Gasoline | 109.2% | 6.84 | 7.47 | -0.0286 | -858.1695 | -1430.2825 | -2860.5651 |
| Japan | 77 | Hino Dump 10t/2005 | Diesel | 106.5% | 2.15 | 2.29 | -0.0745 | -2234.9954 | -3724.9924 | -7449.9848 |
| Japan | 78 | Hino Dump 10t/2002 | Diesel | 106.1% | 1.97 | 2.09 | -0.0764 | -2290.8217 | -3818.0361 | -7636.0722 |
| Japan | 79 | Hino Truck 5 t /2014 | Diesel | 104.9% | 6.39 | 6.7 | -0.0190 | -569.1262 | -948.5437 | -1897.0873 |
| Japan | 80 | Hino Truck 10 t /2012 | Diesel | 107.1% | 3.79 | 4.06 | -0.0460 | -1379.1804 | -2298.6339 | -4597.2679 |
| Japan | 81 | Toyota Corolla HV | Gasoline | 138.7% | 11.55 | 16.02 | -0.0561 | -1681.7703 | -2802.9505 | -5605.9009 |
| Japan | 82 | Toyota Prius | Gasoline | 128.3% | 12.22 | 15.68 | -0.0418 | -1254.9418 | -2091.5696 | -4183.1392 |
| Japan | 83 | Hino Liesse2/2015 | Diesel | 108.9% | 5.67 | 6.17 | -0.0379 | -1135.6091 | -1892.6818 | -3785.3635 |
| Japan | 84 | Isuzu Elf | Diesel | 108.4% | 7.18 | 7.78 | -0.0284 | -851.8761 | -1419.7934 | -2839.5869 |
| Japan | 85 | Hino Profia Lorry (Tunk) | Diesel | 107.7% | 3.96 | 4.26 | -0.0473 | -1417.8499 | -2363.0831 | -4726.1662 |
| Japan | 86 | Hino Truck | Diesel | 113.1% | 2.48 | 2.81 | -0.1224 | -3672.1580 | -6120.2634 | -12240.5267 |
| Japan | 87 | Unitech | Diesel | 113.6% | 7.00 | 7.95 | -0.0447 | -1341.7790 | -2236.2983 | -4472.5966 |
| Japan | 88 | Flatbed Truck | Diesel | 106.0% | 6.65 | 7.05 | -0.0224 | -670.6127 | -1117.6878 | -2235.3757 |

# Oversea fuel efficiency / CO2 emission (City: India, Vietnam & Philippines)

| Country | No. | Model/Year | Type of Fuel (L) | Rate of Fuel Efficiency | Fuel Efficiency | | Co2 Emissions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Before | After | Co2 emissions/km difference (B /A) kg-CO2/L | 30,000km travel kg-CO2/L | 50,000km travel kg-CO2/L | 100,000km travel kg-CO2/L |
| Vietnam (Ho Chi Minh) | 1 | Toyota Innova 1988cc | Gasoline | 107% | 11.05 | 11.8 | -0.0133 | -400.3374 | -667.2291 | -1334.4582 |
| Vietnam (Ho Chi Minh) | 2 | Toyota Innova 1988cc | Gasoline | 116% | 6.8 | 7.9 | -0.0475 | -1425.1675 | -2375.2792 | -4750.5585 |
| India(Mumbai) | 3 | Tata Indica V2 | Gasoline | 120% | 14 | 16.8 | -0.0276 | -828.5714 | -1380.9524 | -2761.9048 |
| India(Mumbai) | 4 | Tata Indica V2 | Gasoline | 122% | 13 | 15.9 | -0.0325 | -976.4877 | -1627.4794 | -3254.9589 |
| India(Mumbai) | 5 | Tata Indica V2 | Gasoline | 121% | 15 | 18.2 | -0.0272 | -815.8242 | -1359.7070 | -2719.4139 |
| India(Mumbai) | 6 | Tata Indica V2 | Gasoline | 118% | 13.5 | 15.9 | -0.0259 | -778.1971 | -1296.9951 | -2593.9902 |
| India(Mumbai) | 7 | Tata Indica V2 | Gasoline | 121% | 14.5 | 17.5 | -0.0274 | -822.8571 | -1371.4286 | -2742.8571 |
| India(Mumbai) | 8 | Tata Indica V2 | Gasoline | 120% | 14 | 16.8 | -0.0276 | -828.5714 | -1380.9524 | -2761.9048 |
| India(Mumbai) | 9 | Tata Indica V2 | Gasoline | 120% | 14 | 16.8 | -0.0276 | -828.5714 | -1380.9524 | -2761.9048 |
| India(Mumbai) | 10 | Renault Logan | Gasoline | 122% | 13 | 15.9 | -0.0325 | -976.4877 | -1627.4794 | -3254.9589 |
| India(Mumbai) | 11 | Renault Logan | Gasoline | 124% | 14 | 17.4 | -0.0324 | -971.4286 | -1619.0476 | -3238.0952 |
| India(Mumbai) | 12 | Renault Logan | Gasoline | 122% | 12.5 | 15.3 | -0.0340 | -1018.9804 | -1698.3007 | -3396.6013 |
| India(Mumbai) | 13 | Renault Logan | Gasoline | 122% | 13.5 | 16.5 | -0.0312 | -937.3737 | -1562.2896 | -3124.5791 |
| India(Mumbai) | 14 | Renault Logan | Gasoline | 123% | 13 | 16 | -0.0335 | -1003.8462 | -1673.0769 | -3346.1538 |
| India(Mumbai) | 15 | Renault Logan | Gasoline | 119% | 12 | 14.3 | -0.0311 | -932.8671 | -1554.7786 | -3109.5571 |
| India(Mumbai) | 16 | Renault Logan | Gasoline | 123% | 13 | 16 | -0.0335 | -1003.8462 | -1673.0769 | -3346.1538 |
| India(Mumbai) | 17 | Toyota Innova | Gasoline | 120% | 10 | 12 | -0.0387 | -1160.0000 | -1933.3333 | -3866.6667 |
| India(Mumbai) | 18 | Toyota Innova | Gasoline | 122% | 12 | 14.6 | -0.0344 | -1032.8767 | -1721.4612 | -3442.9224 |
| India(Mumbai) | 19 | Toyota Innova | Gasoline | 162% | 13 | 21.1 | -0.0685 | -2055.2680 | -3425.4466 | -6850.8932 |
| India(Mumbai) | 20 | Toyota Innova | Gasoline | 117% | 12 | 14 | -0.0276 | -828.5714 | -1380.9524 | -2761.9048 |
| India(Mumbai) | 21 | Toyota Innova | Gasoline | 120% | 10 | 12 | -0.0387 | -1160.0000 | -1933.3333 | -3866.6667 |
| India(Mumbai) | 22 | Toyota Innova | Gasoline | 120% | 10.5 | 12.6 | -0.0368 | -1104.7619 | -1841.2698 | -3682.5397 |
| India(Mumbai) | 23 | Toyota Innova | Gasoline | 121% | 11 | 13.3 | -0.0365 | -1094.1900 | -1823.6500 | -3647.3001 |
| India(Mumbai) | 24 | Toyota Etios | Gasoline | 123% | 18 | 22.1 | -0.0239 | -717.3454 | -1195.5757 | -2391.1513 |
| India(Mumbai) | 25 | Toyota Etios | Gasoline | 125% | 18 | 22.5 | -0.0258 | -773.3333 | -1288.8889 | -2577.7778 |
| India(Mumbai) | 26 | Toyota Etios | Gasoline | 124% | 19 | 23.6 | -0.0238 | -714.0054 | -1190.0089 | -2380.0178 |
| India(Mumbai) | 27 | Toyota Etios | Gasoline | 120% | 18 | 21.6 | -0.0215 | -644.4444 | -1074.0741 | -2148.1481 |

# Oversea fuel efficiency / CO2 emission (City: India, Vietnam & Philippines)

| Country | No. | Model/Year | Type of Fuel (L) | Rate of Fuel Efficiency | Fuel Efficiency | | Co2 Emissions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Before | After | Co2 emissions/km difference (B /A) kg-CO2/L | 30,000km travel kg-CO2/L | 50,000km travel kg-CO2/L | 100,000km travel kg-CO2/L |
| India(Mumbai) | 28 | Toyota Etios | Gasoline | 123% | 16.5 | 20.3 | -0.0263 | -789.6104 | -1316.0173 | -2632.0346 |
| India(Mumbai) | 29 | Toyota Etios | Gasoline | 123% | 18.5 | 22.8 | -0.0237 | -709.5306 | -1182.5510 | -2365.1019 |
| India(Mumbai) | 30 | Toyota Etios | Gasoline | 124% | 17 | 21.1 | -0.0265 | -795.5394 | -1325.8991 | -2651.7982 |
| India(Mumbai) | 31 | Tata Indigo | Gasoline | 118% | 14 | 16.5 | -0.0251 | -753.2468 | -1255.4113 | -2510.8225 |
| India(Mumbai) | 32 | Tata Indigo | Gasoline | 119% | 12 | 14.3 | -0.0311 | -932.8671 | -1554.7786 | -3109.5571 |
| India(Mumbai) | 33 | Tata Indigo | Gasoline | 119% | 14.5 | 17.3 | -0.0259 | -776.8786 | -1294.7977 | -2589.5954 |
| India(Mumbai) | 34 | Tata Indigo | Gasoline | 115% | 14 | 16.1 | -0.0216 | -648.4472 | -1080.7453 | -2161.4907 |
| India(Mumbai) | 35 | Tata Indigo | Gasoline | 118% | 13 | 15.3 | -0.0268 | -804.8265 | -1341.3776 | -2682.7552 |
| India(Mumbai) | 36 | Tata Indigo | Gasoline | 120% | 14 | 16.8 | -0.0276 | -828.5714 | -1380.9524 | -2761.9048 |
| India(Mumbai) | 37 | Tata Indigo | Gasoline | 118% | 15 | 17.7 | -0.0236 | -707.7966 | -1179.6610 | -2359.3220 |
| India(Mumbai) | 38 | Maruti Esteem | Gasoline | 128% | 9 | 11.5 | -0.0560 | -1681.1594 | -2801.9324 | -5603.8647 |
| India(Mumbai) | 39 | Maruti Esteem | Gasoline | 130% | 10 | 13 | -0.0535 | -1606.1538 | -2676.9231 | -5353.8462 |
| India(Mumbai) | 40 | Maruti Esteem | Gasoline | 129% | 9 | 11.6 | -0.0578 | -1733.3333 | -2888.8889 | -5777.7778 |
| India(Mumbai) | 41 | Maruti Esteem | Gasoline | 126% | 9 | 11.3 | -0.0525 | -1574.0413 | -2623.4022 | -5246.8043 |
| India(Mumbai) | 42 | Maruti Esteem | Gasoline | 128% | 8 | 10.2 | -0.0625 | -1876.4706 | -3127.4510 | -6254.9020 |
| India(Mumbai) | 43 | Maruti Esteem | Gasoline | 128% | 8.5 | 10.9 | -0.0601 | -1802.9142 | -3004.8570 | -6009.7140 |
| India(Mumbai) | 44 | Maruti Esteem | Gasoline | 129% | 11 | 14.2 | -0.0475 | -1425.8643 | -2376.4405 | -4752.8809 |
| India(Mumbai) | 45 | MarutiSwift Dzire | Gasoline | 126% | 16 | 20.2 | -0.0301 | -904.4554 | -1507.4257 | -3014.8515 |
| India(Mumbai) | 46 | MarutiSwift Dzire | Gasoline | 128% | 15.5 | 19.8 | -0.0325 | -975.1711 | -1625.2851 | -3250.5702 |
| India(Mumbai) | 47 | MarutiSwift Dzire | Gasoline | 125% | 17 | 21.3 | -0.0276 | -826.5120 | -1377.5200 | -2755.0400 |
| India(Mumbai) | 48 | MarutiSwift Dzire | Gasoline | 123% | 16 | 19.7 | -0.0272 | -817.0051 | -1361.6751 | -2723.3503 |
| India(Mumbai) | 49 | MarutiSwift Dzire | Gasoline | 126% | 14 | 17.6 | -0.0339 | -1016.8831 | -1694.8052 | -3389.6104 |
| India(Mumbai) | 50 | MarutiSwift Dzire | Gasoline | 126% | 16 | 20.2 | -0.0301 | -904.4554 | -1507.4257 | -3014.8515 |
| India(Mumbai) | 51 | MarutiSwift Dzire | Gasoline | 127% | 15 | 19.1 | -0.0332 | -996.0209 | -1660.0349 | -3320.0698 |
| India(Mumbai) | 52 | Mahindra xuv500 | Gasoline | 124% | 11 | 13.6 | -0.0403 | -1209.6257 | -2016.0428 | -4032.0856 |
| India(Mumbai) | 53 | Mahindra xuv500 | Gasoline | 126% | 9 | 11.3 | -0.0525 | -1574.0413 | -2623.4022 | -5246.8043 |
| India(Mumbai) | 54 | Mahindra xuv500 | Gasoline | 121% | 9.5 | 11.5 | -0.0425 | -1274.1419 | -2123.5698 | -4247.1396 |

# Oversea fuel efficiency / CO2 emission (City: India, Vietnam & Philippines)

| Country | No. | Model/Year | Type of Fuel (L) | Rate of Fuel Efficiency | Fuel Efficiency | | Co2 Emissions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Before | After | Co2 emissions/km difference (B /A) kg-CO2/L | 30,000km travel kg-CO2/L | 50,000km travel kg-CO2/L | 100,000km travel kg-CO2/L |
| India(Mumbai) | 55 | Mahindra xuv500 | Gasoline | 125% | 11 | 13.8 | -0.0428 | -1283.7945 | -2139.6574 | -4279.3149 |
| India(Mumbai) | 56 | Mahindra xuv500 | Gasoline | 125% | 10 | 12.5 | -0.0464 | -1392.0000 | -2320.0000 | -4640.0000 |
| India(Mumbai) | 57 | Mahindra xuv500 | Gasoline | 124% | 10.5 | 13 | -0.0425 | -1274.7253 | -2124.5421 | -4249.0842 |
| India(Mumbai) | 58 | Mahindra xuv500 | Gasoline | 124% | 11 | 13.6 | -0.0403 | -1209.6257 | -2016.0428 | -4032.0856 |
| India(Mumbai) | 59 | Mahindra Xylo | Gasoline | 129% | 9.5 | 12.3 | -0.0556 | -1667.7792 | -2779.6320 | -5559.2640 |
| India(Mumbai) | 60 | Mahindra Xylo | Gasoline | 131% | 9 | 11.8 | -0.0612 | -1835.0282 | -3058.3804 | -6116.7608 |
| India(Mumbai) | 61 | Mahindra Xylo | Gasoline | 130% | 10 | 13 | -0.0535 | -1606.1538 | -2676.9231 | -5353.8462 |
| India(Mumbai) | 62 | Mahindra Xylo | Gasoline | 129% | 9.5 | 12.3 | -0.0556 | -1667.7792 | -2779.6320 | -5559.2640 |
| India(Mumbai) | 63 | Mahindra Xylo | Gasoline | 126% | 9.5 | 12 | -0.0509 | -1526.3158 | -2543.8596 | -5087.7193 |
| India(Mumbai) | 64 | Mahindra Xylo | Gasoline | 131% | 8.5 | 11.1 | -0.0639 | -1917.9650 | -3196.6084 | -6393.2167 |
| India(Mumbai) | 65 | Mahindra Xylo | Gasoline | 129% | 9 | 11.6 | -0.0578 | -1733.3333 | -2888.8889 | -5777.7778 |
| India(Mumbai) | 66 | Mahindra Scorpio | Gasoline | 121% | 8 | 9.7 | -0.0508 | -1524.7423 | -2541.2371 | -5082.4742 |
| India(Mumbai) | 67 | Mahindra Scorpio | Gasoline | 124% | 8.5 | 10.5 | -0.0520 | -1559.6639 | -2599.4398 | -5198.8796 |
| India(Mumbai) | 68 | Mahindra Scorpio | Gasoline | 118% | 8 | 9.4 | -0.0432 | -1295.7447 | -2159.5745 | -4319.1489 |
| India(Mumbai) | 69 | Mahindra Scorpio | Gasoline | 123% | 7.5 | 9.2 | -0.0572 | -1714.7826 | -2857.9710 | -5715.9420 |
| India(Mumbai) | 70 | Mahindra Scorpio | Gasoline | 122% | 9 | 11 | -0.0469 | -1406.0606 | -2343.4343 | -4686.8687 |
| India(Mumbai) | 71 | Mahindra Scorpio | Gasoline | 121% | 8 | 9.7 | -0.0508 | -1524.7423 | -2541.2371 | -5082.4742 |
| India(Mumbai) | 72 | Mahindra Scorpio | Gasoline | 121% | 9 | 10.9 | -0.0449 | -1348.0122 | -2246.6871 | -4493.3741 |
| India(Mumbai) | 73 | Chervolet Spark | Gasoline | 117% | 14 | 16.4 | -0.0243 | -727.5261 | -1212.5436 | -2425.0871 |
| India(Mumbai) | 74 | Chervolet Spark | Gasoline | 118% | 13.5 | 15.9 | -0.0259 | -778.1971 | -1296.9951 | -2593.9902 |
| India(Mumbai) | 75 | Chervolet Spark | Gasoline | 114% | 13 | 14.8 | -0.0217 | -651.1435 | -1085.2391 | -2170.4782 |
| India(Mumbai) | 76 | Chervolet Spark | Gasoline | 117% | 15 | 17.6 | -0.0228 | -685.4545 | -1142.4242 | -2284.8485 |
| India(Mumbai) | 77 | Chervolet Spark | Gasoline | 118% | 14 | 16.5 | -0.0251 | -753.2468 | -1255.4113 | -2510.8225 |
| India(Mumbai) | 78 | Chervolet Spark | Gasoline | 119% | 14 | 16.7 | -0.0268 | -803.7639 | -1339.6065 | -2679.2130 |
| India(Mumbai) | 79 | Chervolet Spark | Gasoline | 117% | 15.5 | 18.1 | -0.0215 | -645.0187 | -1075.0312 | -2150.0624 |
| India(Mumbai) | 80 | Hyundai i10 | Gasoline | 115% | 13 | 15 | -0.0238 | -713.8462 | -1189.7436 | -2379.4872 |
| India(Mumbai) | 81 | Hyundai i10 | Gasoline | 117% | 13.5 | 15.8 | -0.0250 | -750.4923 | -1250.8204 | -2501.6409 |

# Oversea fuel efficiency / CO2 emission (City: India, Vietnam & Philippines)

| Country | No. | Model/Year | Type of Fuel (L) | Rate of Fuel Efficiency | Fuel Efficiency | | Co2 Emissions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Before | After | Co2 emissions/km difference (B /A) kg-CO2/L | 30,000km travel kg-CO2/L | 50,000km travel kg-CO2/L | 100,000km travel kg-CO2/L |
| India(Mumbai) | 82 | Hyundai i10 | Gasoline | 115% | 13 | 15 | -0.0238 | -713.8462 | -1189.7436 | -2379.4872 |
| India(Mumbai) | 83 | Hyundai i10 | Gasoline | 115% | 13 | 15 | -0.0238 | -713.8462 | -1189.7436 | -2379.4872 |
| India(Mumbai) | 84 | Hyundai i10 | Gasoline | 116% | 12.5 | 14.5 | -0.0256 | -768.0000 | -1280.0000 | -2560.0000 |
| India(Mumbai) | 85 | Hyundai i10 | Gasoline | 116% | 14 | 16.2 | -0.0225 | -675.1323 | -1125.2205 | -2250.4409 |
| India(Mumbai) | 86 | Hyundai i10 | Gasoline | 112% | 13 | 14.6 | -0.0196 | -586.7229 | -977.8714 | -1955.7429 |
| India(Mumbai) | 87 | Hyundai Accent | Gasoline | 122% | 11 | 13.4 | -0.0378 | -1133.2429 | -1888.7381 | -3777.4763 |
| India(Mumbai) | 88 | Hyundai Accent | Gasoline | 124% | 11 | 13.6 | -0.0403 | -1209.6257 | -2016.0428 | -4032.0856 |
| India(Mumbai) | 89 | Hyundai Accent | Gasoline | 122% | 10.5 | 12.8 | -0.0397 | -1191.0714 | -1985.1190 | -3970.2381 |
| India(Mumbai) | 90 | Hyundai Accent | Gasoline | 119% | 11.5 | 13.7 | -0.0324 | -971.8819 | -1619.8032 | -3239.6065 |
| India(Mumbai) | 91 | Hyundai Accent | Gasoline | 123% | 10.5 | 12.9 | -0.0411 | -1233.2226 | -2055.3710 | -4110.7420 |
| India(Mumbai) | 92 | Hyundai Accent | Gasoline | 122% | 12 | 14.6 | -0.0344 | -1032.8767 | -1721.4612 | -3442.9224 |
| India(Mumbai) | 93 | Hyundai Accent | Gasoline | 123% | 11 | 13.5 | -0.0391 | -1171.7172 | -1952.8620 | -3905.7239 |
| India(Mumbai) | 94 | Honda Accord | Gasoline | 131% | 7.5 | 9.8 | -0.0726 | -2177.9592 | -3629.9320 | -7259.8639 |
| India(Mumbai) | 95 | Honda Accord | Gasoline | 133% | 8 | 10.6 | -0.0711 | -2133.9623 | -3556.6038 | -7113.2075 |
| India(Mumbai) | 96 | Honda Accord | Gasoline | 131% | 8 | 10.5 | -0.0690 | -2071.4286 | -3452.3810 | -6904.7619 |
| India(Mumbai) | 97 | Honda Accord | Gasoline | 128% | 8 | 10.2 | -0.0625 | -1876.4706 | -3127.4510 | -6254.9020 |
| India(Mumbai) | 98 | Honda Accord | Gasoline | 130% | 7 | 9.1 | -0.0765 | -2294.5055 | -3824.1758 | -7648.3516 |
| India(Mumbai) | 99 | Honda Accord | Gasoline | 131% | 7 | 9.2 | -0.0793 | -2377.6398 | -3962.7329 | -7925.4658 |
| India(Mumbai) | 100 | Honda Accord | Gasoline | 131% | 7.5 | 9.8 | -0.0726 | -2177.9592 | -3629.9320 | -7259.8639 |
| India(Mumbai) | 101 | Tata Sumo | Diesel | 124% | 10.5 | 13 | -0.0480 | -1439.5604 | -2399.2674 | -4798.5348 |
| India(Mumbai) | 102 | Tata Sumo | Diesel | 126% | 10.5 | 13.2 | -0.0510 | -1531.1688 | -2551.9481 | -5103.8961 |
| India(Mumbai) | 103 | Tata Sumo | Diesel | 125% | 10 | 12.5 | -0.0524 | -1572.0000 | -2620.0000 | -5240.0000 |
| India(Mumbai) | 104 | Tata Sumo | Diesel | 124% | 10.5 | 13 | -0.0480 | -1439.5604 | -2399.2674 | -4798.5348 |
| India(Mumbai) | 105 | Tata Sumo | Diesel | 125% | 11 | 13.8 | -0.0483 | -1449.8024 | -2416.3373 | -4832.6746 |
| India(Mumbai) | 106 | Tata Sumo | Diesel | 121% | 11 | 13.3 | -0.0412 | -1235.6801 | -2059.4668 | -4118.9337 |
| India(Mumbai) | 107 | Tata Sumo | Diesel | 124% | 10.5 | 13 | -0.0480 | -1439.5604 | -2399.2674 | -4798.5348 |
| India(Mumbai) | 108 | Maruti eeco | Gasoline | 125% | 14.5 | 18.1 | -0.0318 | -954.6961 | -1591.1602 | -3182.3204 |

# Oversea fuel efficiency / CO2 emission (City: India, Vietnam & Philippines)

| Country | No. | Model/Year | Type of Fuel (L) | Rate of Fuel Efficiency | Fuel Efficiency | | Co2 Emissions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Before | After | Co2 emissions/km difference (B /A) kg-CO2/L | 30,000km travel kg-CO2/L | 50,000km travel kg-CO2/L | 100,000km travel kg-CO2/L |
| India(Mumbai) | 109 | Maruti eeco | Gasoline | 125% | 15.5 | 19.4 | -0.0301 | -902.6937 | -1504.4895 | -3008.9790 |
| India(Mumbai) | 110 | Maruti eeco | Gasoline | 125% | 15 | 18.8 | -0.0313 | -937.8723 | -1563.1206 | -3126.2411 |
| India(Mumbai) | 111 | Maruti eeco | Gasoline | 122% | 15 | 18.3 | -0.0279 | -836.7213 | -1394.5355 | -2789.0710 |
| India(Mumbai) | 112 | Maruti eeco | Gasoline | 126% | 14.5 | 18.3 | -0.0332 | -996.7213 | -1661.2022 | -3322.4044 |
| India(Mumbai) | 113 | Maruti eeco | Gasoline | 127% | 14 | 17.8 | -0.0354 | -1061.3162 | -1768.8604 | -3537.7207 |
| India(Mumbai) | 114 | Maruti eeco | Gasoline | 126% | 14.5 | 18.3 | -0.0332 | -996.7213 | -1661.2022 | -3322.4044 |
| India(Mumbai) | 115 | Mercedes Benz E250 | Gasoline | 140% | 6.5 | 9.1 | -0.1020 | -3059.3407 | -5098.9011 | -10197.8022 |
| India(Mumbai) | 116 | Mercedes Benz E250 | Gasoline | 137% | 6.5 | 8.9 | -0.0962 | -2887.4676 | -4812.4460 | -9624.8920 |
| India(Mumbai) | 117 | Mercedes Benz E250 | Gasoline | 142% | 6 | 8.5 | -0.1137 | -3411.7647 | -5686.2745 | -11372.5490 |
| India(Mumbai) | 118 | Mercedes Benz E250 | Gasoline | 140% | 6.5 | 9.1 | -0.1020 | -3059.3407 | -5098.9011 | -10197.8022 |
| India(Mumbai) | 119 | Mercedes Benz E250 | Gasoline | 141% | 7 | 9.9 | -0.0971 | -2912.5541 | -4854.2569 | -9708.5137 |
| India(Mumbai) | 120 | Mercedes Benz E250 | Gasoline | 142% | 5 | 7.1 | -0.1372 | -4117.1831 | -6861.9718 | -13723.9437 |
| India(Mumbai) | 121 | Mercedes Benz E250 | Gasoline | 140% | 6 | 8.4 | -0.1105 | -3314.2857 | -5523.8095 | -11047.6190 |
| India(Mumbai) | 122 | BMW 3 Series | Gasoline | 142% | 10 | 14.2 | -0.0686 | -2058.5915 | -3430.9859 | -6861.9718 |
| India(Mumbai) | 123 | BMW 3 Series | Gasoline | 144% | 9 | 13 | -0.0793 | -2379.4872 | -3965.8120 | -7931.6239 |
| India(Mumbai) | 124 | BMW 3 Series | Gasoline | 142% | 10 | 14.2 | -0.0686 | -2058.5915 | -3430.9859 | -6861.9718 |
| India(Mumbai) | 125 | BMW 3 Series | Gasoline | 142% | 10 | 14.2 | -0.0686 | -2058.5915 | -3430.9859 | -6861.9718 |
| India(Mumbai) | 126 | BMW 3 Series | Gasoline | 143% | 10 | 14.3 | -0.0698 | -2092.8671 | -3488.1119 | -6976.2238 |
| India(Mumbai) | 127 | BMW 3 Series | Gasoline | 139% | 11 | 15.3 | -0.0593 | -1778.2531 | -2963.7552 | -5927.5104 |
| India(Mumbai) | 128 | BMW 3 Series | Gasoline | 143% | 9.5 | 13.6 | -0.0736 | -2208.6687 | -3681.1146 | -7362.2291 |
| India(Mumbai) | 129 | Audi A6 | Gasoline | 151% | 6.5 | 9.8 | -0.1202 | -3605.6515 | -6009.4192 | -12018.8383 |
| India(Mumbai) | 130 | Audi A6 | Gasoline | 147% | 6 | 8.8 | -0.1230 | -3690.9091 | -6151.5152 | -12303.0303 |
| India(Mumbai) | 131 | Audi A6 | Gasoline | 151% | 7.5 | 11.3 | -0.1040 | -3120.7080 | -5201.1799 | -10402.3599 |
| India(Mumbai) | 132 | Audi A6 | Gasoline | 147% | 7 | 10.3 | -0.1062 | -3185.5756 | -5309.2926 | -10618.5853 |
| India(Mumbai) | 133 | Audi A6 | Gasoline | 152% | 6 | 9.1 | -0.1317 | -3951.6484 | -6586.0806 | -13172.1612 |
| India(Mumbai) | 134 | Audi A6 | Gasoline | 151% | 6.5 | 9.8 | -0.1202 | -3605.6515 | -6009.4192 | -12018.8383 |
| India(Mumbai) | 135 | Audi A6 | Gasoline | 151% | 6.5 | 9.8 | -0.1202 | -3605.6515 | -6009.4192 | -12018.8383 |
| India(Mumbai) | 136 | Toyota Fortuner | Gasoline | 124% | 10 | 12.4 | -0.0449 | -1347.0968 | -2245.1613 | -4490.3226 |

# Oversea fuel efficiency / CO2 emission (City: India, Vietnam & Philippines)

| Country | No. | Model/Year | Type of Fuel (L) | Rate of Fuel Efficiency | Fuel Efficiency | | Co2 Emissions | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Before | After | Co2 emissions/km difference (B/A) kg-CO2/L | 30,000km travel kg-CO2/L | 50,000km travel kg-CO2/L | 100,000km travel kg-CO2/L |
| India(Mumbai) | 136 | Toyota Fortuner | Gasoline | 124% | 10 | 12.4 | -0.0449 | -1347.0968 | -2245.1613 | -4490.3226 |
| India(Mumbai) | 137 | Toyota Fortuner | Gasoline | 126% | 10 | 12.6 | -0.0479 | -1436.1905 | -2393.6508 | -4787.3016 |
| India(Mumbai) | 138 | Toyota Fortuner | Gasoline | 124% | 9 | 11.2 | -0.0506 | -1519.0476 | -2531.7460 | -5063.4921 |
| India(Mumbai) | 139 | Toyota Fortuner | Gasoline | 124% | 9.5 | 11.8 | -0.0476 | -1428.0107 | -2380.0178 | -4760.0357 |
| India(Mumbai) | 140 | Toyota Fortuner | Gasoline | 125% | 11 | 13.8 | -0.0428 | -1283.7945 | -2139.6574 | -4279.3149 |
| India(Mumbai) | 141 | Toyota Fortuner | Gasoline | 125% | 8 | 10 | -0.0580 | -1740.0000 | -2900.0000 | -5800.0000 |
| India(Mumbai) | 142 | Toyota Fortuner | Gasoline | 121% | 10 | 12.1 | -0.0403 | -1207.9339 | -2013.2231 | -4026.4463 |
| India(Mumbai) | 143 | Maruti Wagon R | Gasoline | 122% | 16 | 19.5 | -0.0260 | -780.7692 | -1301.2821 | -2602.5641 |
| India(Mumbai) | 144 | Maruti Wagon R | Gasoline | 124% | 12 | 14.9 | -0.0376 | -1128.8591 | -1881.4318 | -3762.8635 |
| India(Mumbai) | 145 | Maruti Wagon R | Gasoline | 123% | 17 | 20.9 | -0.0255 | -763.9741 | -1273.2902 | -2546.5804 |
| India(Mumbai) | 146 | Maruti Wagon R | Gasoline | 122% | 16 | 19.5 | -0.0260 | -780.7692 | -1301.2821 | -2602.5641 |
| India(Mumbai) | 147 | Maruti Wagon R | Gasoline | 122% | 15 | 18.3 | -0.0279 | -836.7213 | -1394.5355 | -2789.0710 |
| India(Mumbai) | 148 | Maruti Wagon R | Gasoline | 119% | 15 | 17.9 | -0.0251 | -751.7318 | -1252.8864 | -2505.7728 |
| India(Mumbai) | 149 | Maruti Wagon R | Gasoline | 123% | 11 | 13.5 | -0.0391 | -1171.7172 | -1952.8620 | -3905.7239 |
| Philippines(Manila) | 150 | Toyota Fortuner Gas | Gasoline | 130% | 8 | 10.4 | -0.0669 | -2007.6923 | -3346.1538 | -6692.3077 |
| Philippines(Manila) | 151 | Hyundai Elantra Gas | Gasoline | 135% | 20 | 27 | -0.0301 | -902.2222 | -1503.7037 | -3007.4074 |
| Philippines(Manila) | 152 | Mitsubishi Strada GLX-V Diesel | Diesel | 143% | 16 | 22.8 | -0.0488 | -1465.1316 | -2441.8860 | -4883.7719 |
| Philippines(Manila) | 153 | Hyundai Starex Diesel | Diesel | 136% | 10 | 13.6 | -0.0694 | -2080.5882 | -3467.6471 | -6935.2941 |
| Philippines(Manila) | 154 | Mitsibishi L300 FB Diesel | Diesel | 131% | 15 | 19.6 | -0.0410 | -1229.7959 | -2049.6599 | -4099.3197 |
| Philippines(Manila) | 155 | Isuzu D-Max Diesel | Diesel | 140% | 14 | 19.6 | -0.0535 | -1604.0816 | -2673.4694 | -5346.9388 |

# Thank you for your undivided attention!

Vector Japan Co., Ltd.