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250 > 385 PPM

PUBLIC HEALTH AND INDIRECT COSTS:

Private transportation > traffic jams
> congestion

Air pollution is increasing dangerously and, according to the World Health Organization, 30% of illnesses are due to pollution!

In 1750, air contained 250 ppm CO₂
(concentration of particles per million)
In 2007, air included 385 ppm CO₂

WHEN I TRAVEL BY BUS

it's on average:

- > 3 times less pollution per person carried
- > 30 times less public space used

30 times
less

WHEN I TRAVEL BY BUS I USE LESS ENERGY*:

1 bus carrying 20 people = 115 miles
Compact car = 45 miles
Sedan = 35 miles
Large sedan = 22 miles
SUV = 15 miles

*with 1 US gallon

WHAT I PAY WHEN I TRAVEL BY:

Bus* = \$0.9 per mile
Compact car** = \$0.41 per mile
Sedan** = \$0.53 per mile
Large sedan** = \$0.65 per mile
SUV** = \$0.66 per mile

*Source: ADEME, the French Environment and Energy Management Agency (2007)
** Source: Pacebus (2006)

IN TERMS OF VALUE FOR MONEY FOR TRIP DURATION/DISTANCE, THE BUS CANNOT BE BEATEN:

The bus trip costs me:

- 12 times less than an identical trip carried out by taxi, even if it lasts a little longer
- 4 times less than an identical trip carried out by private car.

quality



QUALITY OF SERVICES AND SAFETY

In 2008 Veolia Transport introduced a reinforced Quality Approach. It used its knowledge of passenger expectations to create a pyramidal approach that is simple and educational.

Three stages must be successfully achieved by applying a scoring system that ranges from the basics up to excellence and enables concrete, visible actions to be put in place for each country.

Four guiding principles: the staff, the client, measurement and communications. Currently, 30% of our transit systems are certified ISO 14001, 9001 or OHSAS 18001.

PUBLIC TRANSPORTATION: SOCIAL MOBILITY = SUSTAINABLE MOBILITY!

Services for the community in off-peak hours: links to hospitals, government offices, stores, markets, stations, etc.
Business development for the area: buses, coaches, light rail, trolley buses, metro, transportation on demand, etc.

Transportation for People with Reduced Mobility provided by Veolia Transport in 2008:

- 12,491 vehicles accessible for disabled passengers
- 2,275 dedicated vehicles for disabled passengers (paratransit)

- CHARTER
- CARDS
- QUICKLISTS
- CHECKLISTS
- > KEY FIGURES

12,491 + 2,275

sustainable development kit



14%

26%

**URBANIZATION/MOBILITY:
IT'S ON THE MOVE!**

- > 180,000 more urban dwellers per day, or the equivalent of a city such as Tempe, Arizona (USA)
- > 2025: 5 billion urban dwellers
- > 2015: 80% of demographic growth will be in megacities
- > 2025: 10 megacities with 20 million inhabitants
- Transportation in general (journeys, goods, etc.) will account for 14% of the CO₂ generated worldwide

CHANGE IN TRAFFIC WORLDWIDE:

- > 1980-2003: the number of cars was x2 (= 800 million)
- > 2025: the number of international tourists will be x3
- > 1955-2005: the total distance covered per year worldwide was x8
- > 1985-2005: the number of journeys by air worldwide was x3
- > 1905-2005: global goods traffic was x1,000
- > 1975-2005: transportation by ship was x2
- > 1995-2020: global freight carried by heavy goods vehicles will be x2

800million

GLOBAL RESOURCES:

- > There remain 40 to 50 years of oil reserves under current conditions of extraction
- > 2030: global energy demand = X2

**My bus is fitted with systems that minimize pollution discharges:
1 soot trap = from 70% to 90% less CO, PM and hydrocarbons**

Fame (B30) (at 30%) or biofuel ≈ 15% CO₂ gain in the life cycle of fuel

Shipping freight by rail is very low in pollution:
1 train carrying 1,000 metric tons of goods is equivalent to 40 trucks (at density 1)

MY TRIP BY PUBLIC TRANSPORTATION PRODUCES VERY LITTLE CO₂

- For example:
- Miami-Washington = 1,000 miles
- Car (for 1 person) = 360 kg CO₂
- Airplane* = 240 kg CO₂
- Ferry = 600 kg CO₂
- Heavy train* = 150 kg CO₂
- *occupancy rate 80%

150 kg CO₂

136 g / mile / person

MY TRIP BY PUBLIC TRANSPORTATION GENERATES LITTLE CO₂ COMPARED WITH A PRIVATE CAR:

- 1 bus carrying 20 people = 136 g / mile / person
- Toyota COROLLA = 320 g / mile / person
- Ford FUSION = 368 g / mile / person
- Cadillac CTS = 464 g / mile / person
- Toyota TENDRA = 672 g / mile / person



ACCESS THE CITY CENTER WITHOUT PARKING PROBLEMS!

- An edge-of-town park and ride facility with 100 parking spaces connected to a transportation system with a service frequency of 3 to 7 min =
- > 42,000 people per year in the city center without their car
- > 120 metric tons less CO₂
- > 60,000 more city-center parking spaces freed up per year
- > optimal use of city-center space
- > fewer accidents
- etc.

no problems!

IF I TRAVEL BY PUBLIC TRANSPORTATION IN BUILT-UP AREAS, TOGETHER WE ARE VERY EFFECTIVE

- In peak traffic hours the equivalent of:
- 1 bus (20 people) = 16 fewer cars
- 1 full bus = 58 fewer cars
- 1 articulated bus = 90 fewer cars
- 1 metro/tram car = 250 fewer cars
- 1 commuter train = 500 fewer cars
- 1 rapid transit system train = 1,300 fewer cars

LIFE IS SAFER USING PUBLIC TRANSPORTATION:

- Percentage of deaths per transportation mode
- Cars/LTV = 70.6%
- Pedestrians (caused by car) = 12.79%
- Motorcycles = 12%
- Ships = 1.67%
- Train/Light rail = 1.42%
- Airplane = 1.24%
- Bus/Coach = 0.09%

32 times safer