



SERVE THE PLANET 2018

Module 2: Study Circle Part 3

Energy Use in Daily Life: TRANSPORTATION



Outline

- ▶ Meaning of Transportation and its evolution
- ▶ Modes, elements and energy sources
- ▶ Environmental impact of energy use in Transportation
- ▶ Transportation and energy saving
- ▶ Ceiling on Desires and energy saving tips

The purpose of this study circle is to better understand the impact of our transportation use on the planet, and how it can be used responsibly to make the planet more sustainable.



Meaning of Transportation



- The movement of people or goods from one place to another
- A vehicle or system of vehicles, such as buses, trains, etc. for getting from one place to another



Evolution of Transportation



<https://www.youtube.com/watch?v=o-XPufM4i8E>

Video duration – 1 min 44 secs



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Modes of Transport



Land



Air



Water



Elements of Transport

Vehicle

- Device used to move people and goods



Infrastructure

- Fixed installations that allow a vehicle to operate



Operation

- Entity which operates the vehicle



Energy Sources in Transportation

Gasoline

- Cars, Motorcycles, Light trucks, Boats

Diesel Fuel

- Trucks, Buses, Trains, Boats, Ships

Jet Fuel

- Airplanes, Helicopters

Residual Fuel

- Ships

Bio Fuel

- Cars, Buses, Trucks, Boats, Ships

Natural Gas

- Cars, Buses, Trucks

Propane

- Cars, Buses, Trucks

Electricity

- Cars, Motorcycles, Buses

Hydrogen

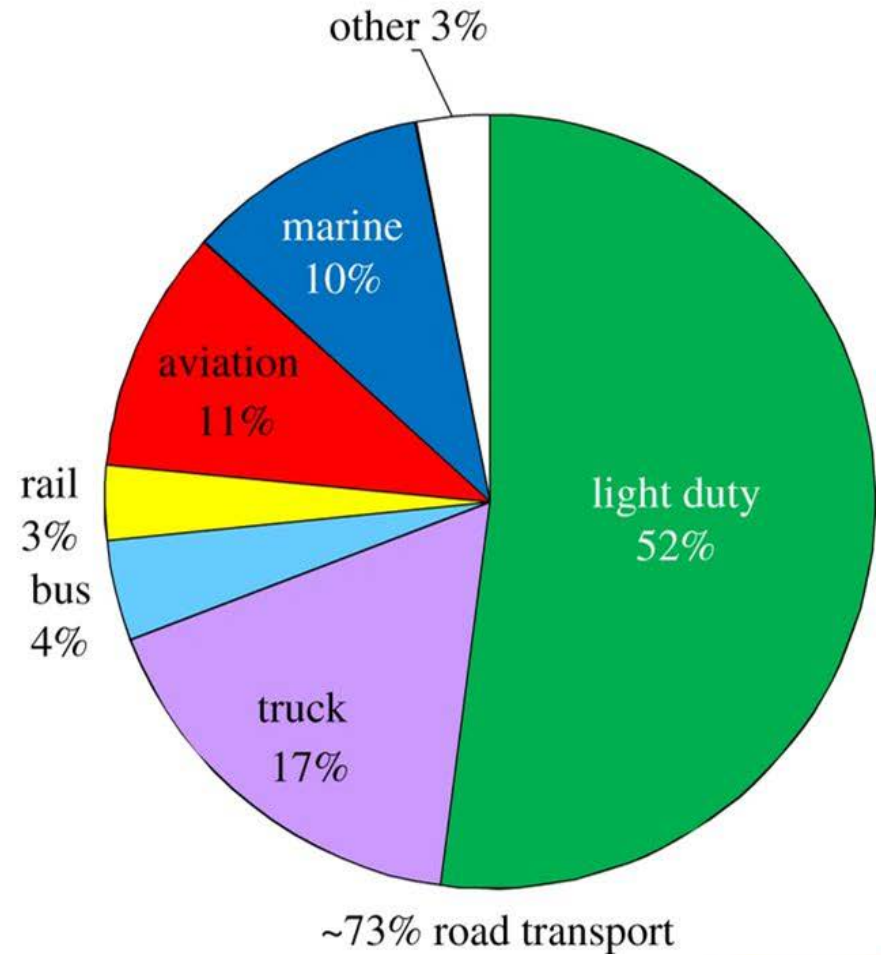
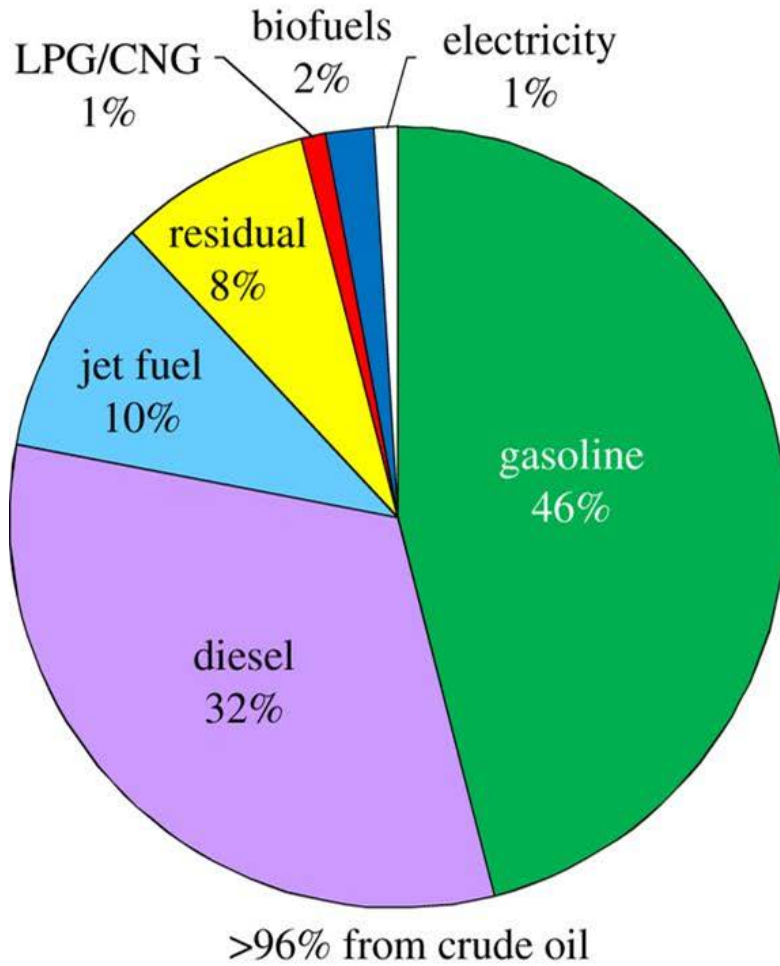
- Cars, Buses, Space rockets

Source: The Royal Society Publishing



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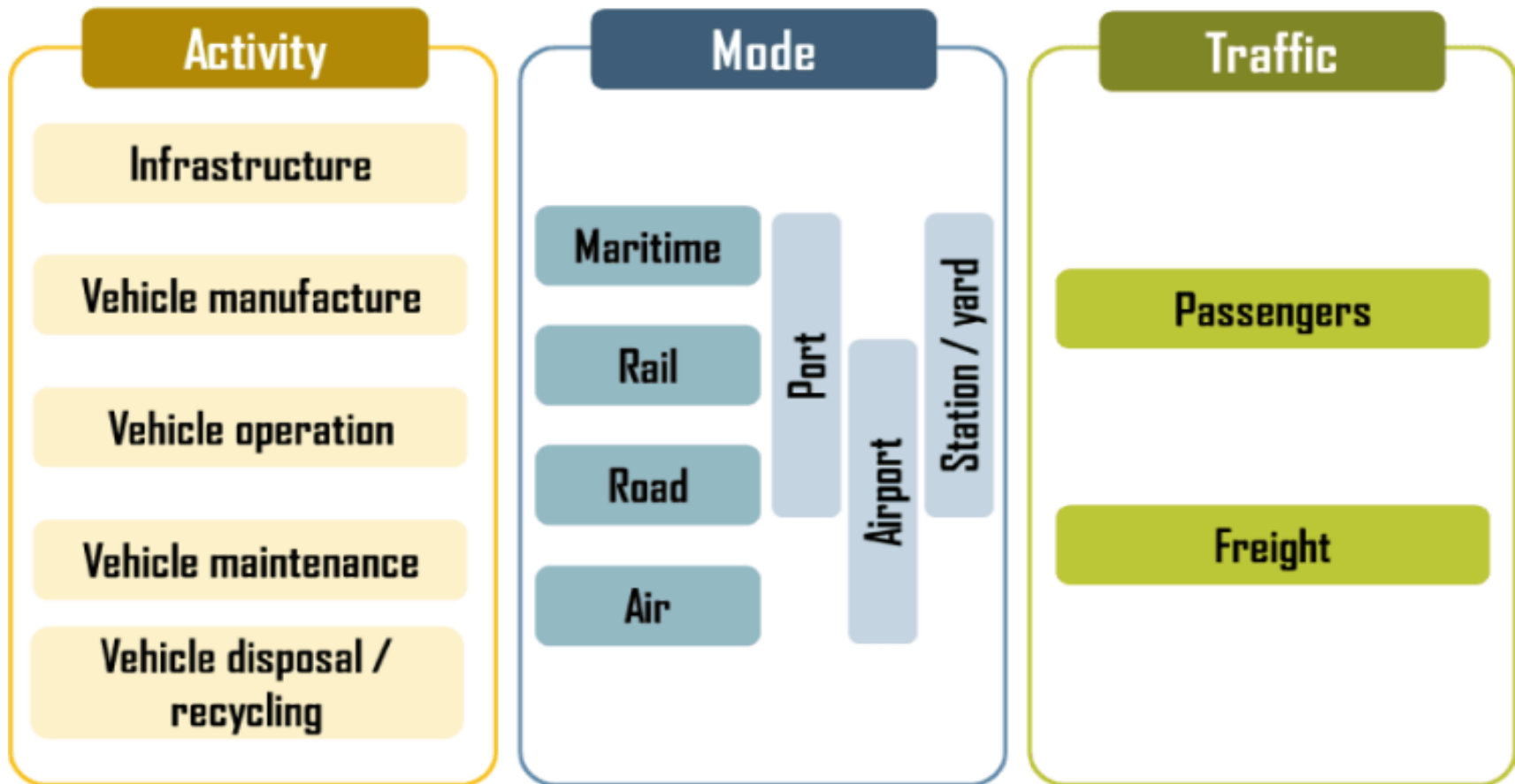
Energy Consumption in Transportation



Source: The Royal Society Publishing



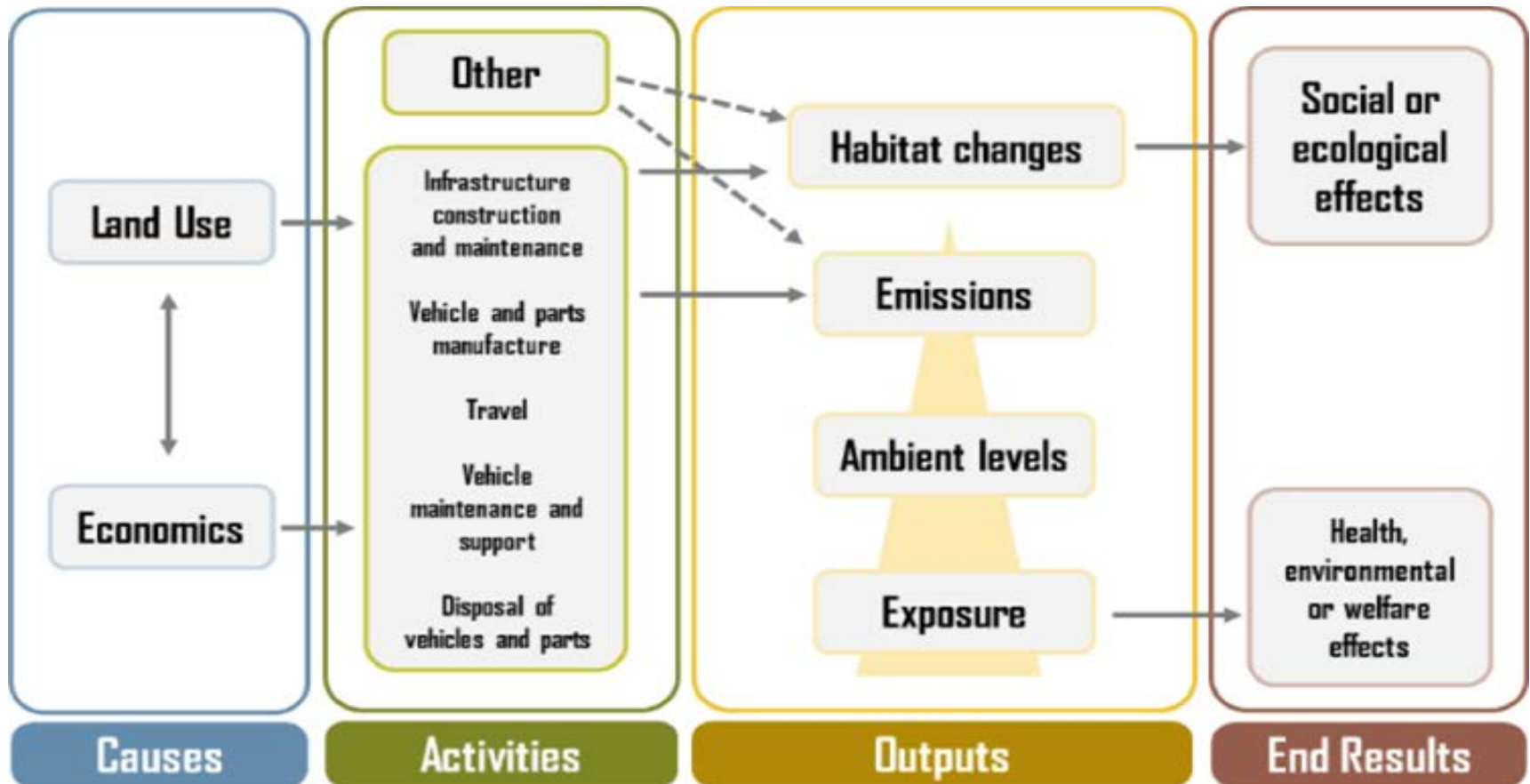
Environmental Impact of Transportation



Source: The Geography of Transport Systems



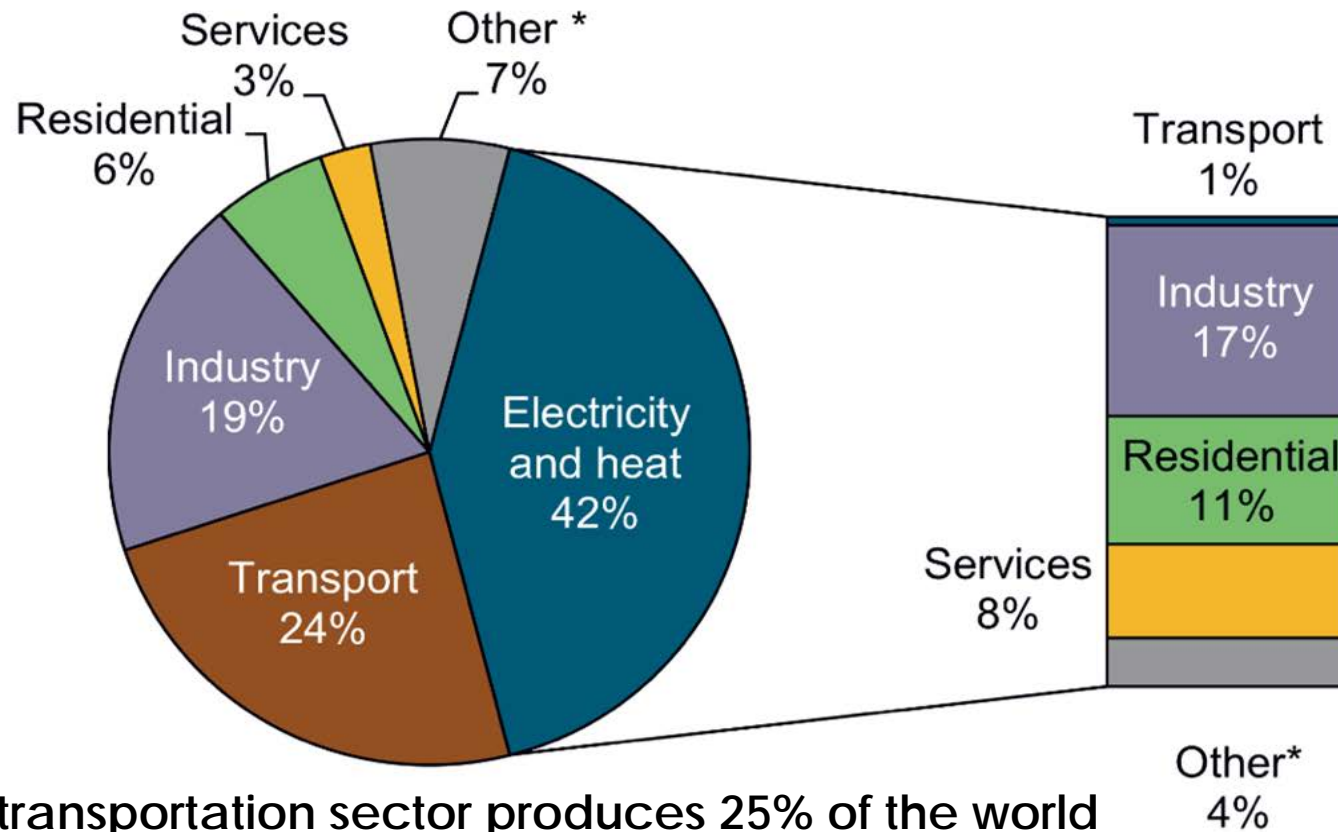
Environmental Impact of Transportation contd.



Source: The Geography of Transport Systems



Environmental impact of Transportation contd.



The transportation sector produces 25% of the world CO₂ emissions in 2015

Source: International Energy Agency



Environmental impact of Transportation contd.



<https://www.youtube.com/watch?v=Heqd7IH7ZTA>

Video duration – 1 min 38 secs



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Environmental Impact of Transportation contd.

Energy Consumption and Pollution

Air Pollution

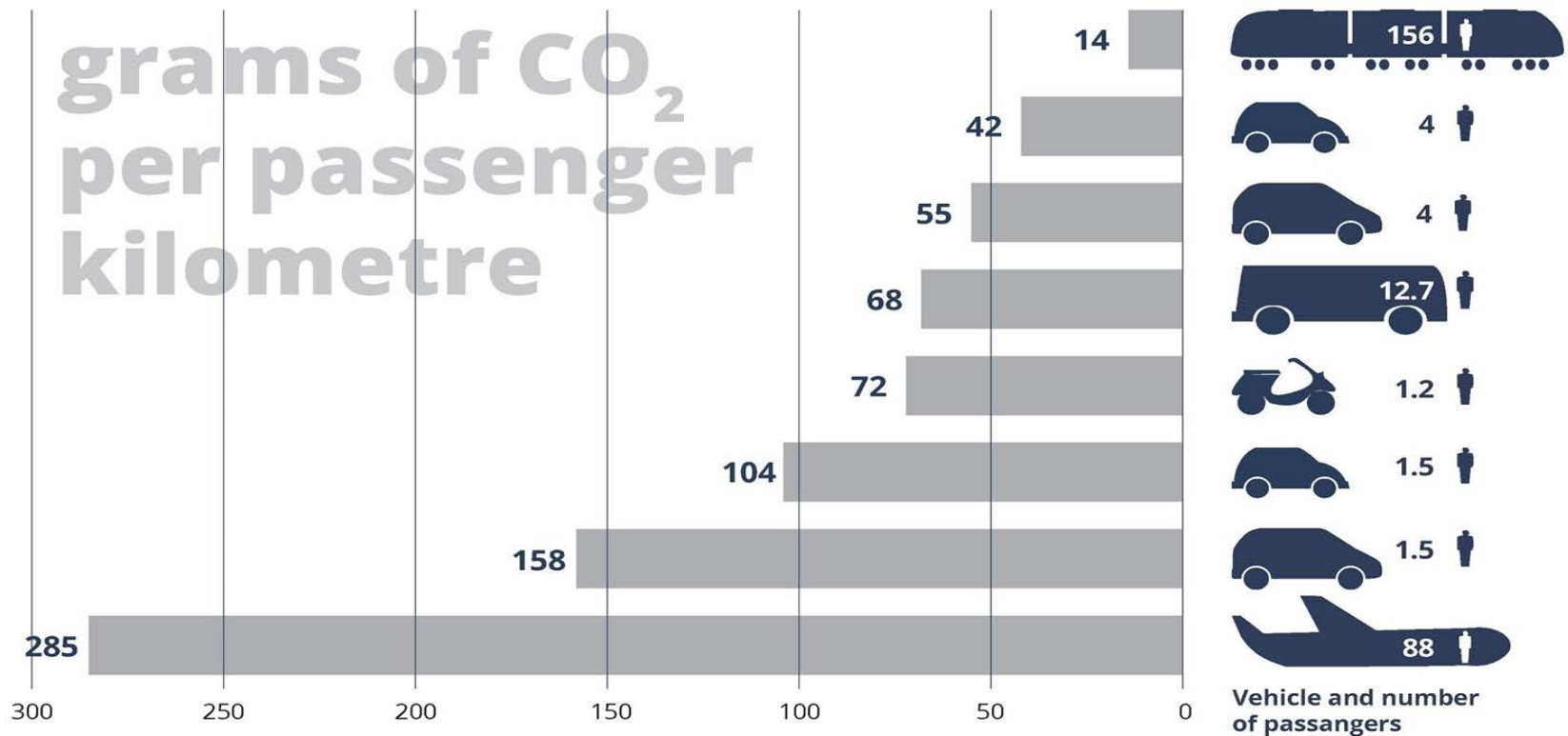
Noise Pollution

Land Consumption and Landscape Damage

Ecological Degradation



Environmental Impact - CO₂ Emissions from Passenger Transport

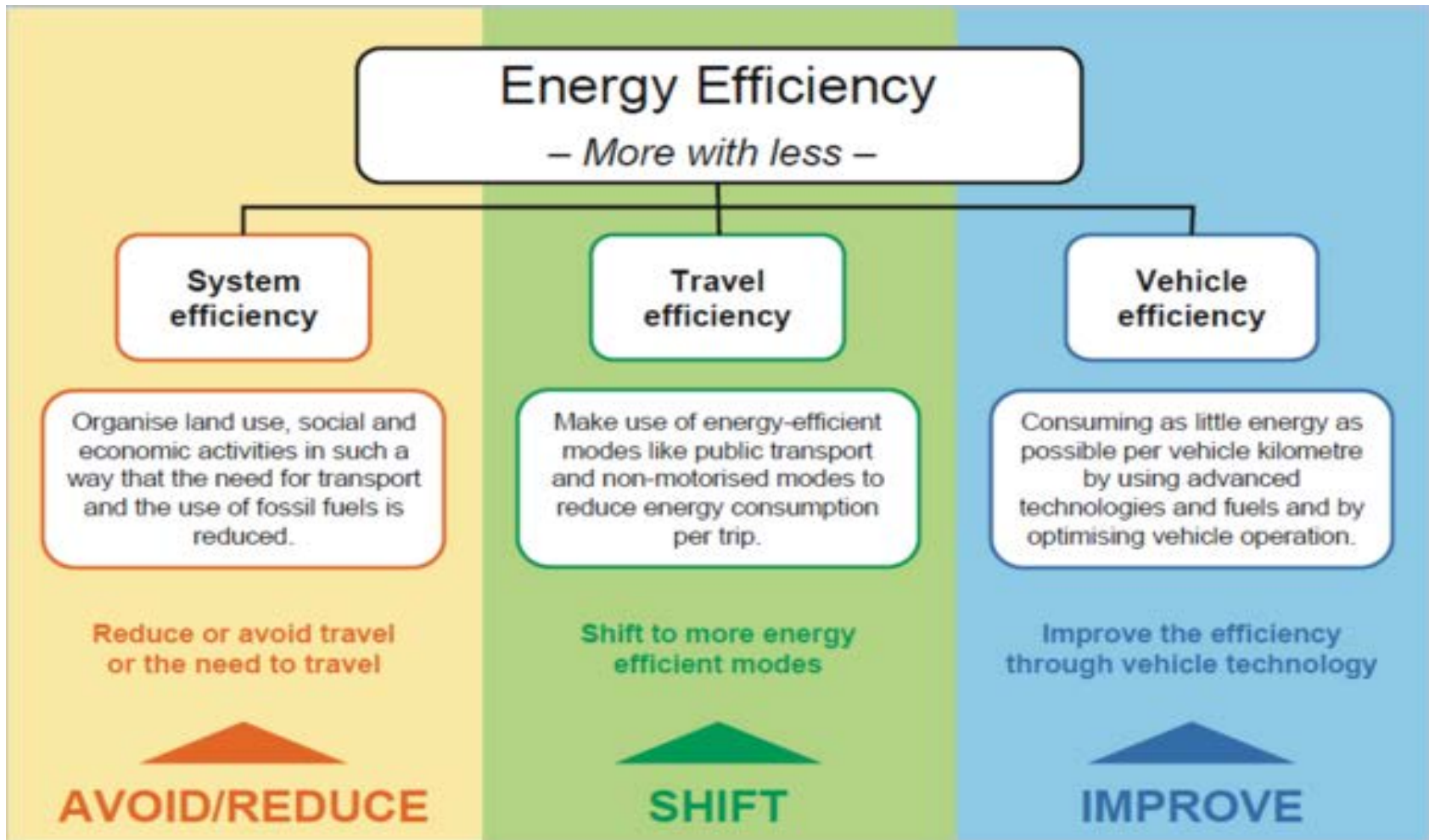


Note: The figures have been estimated with an average number of passengers per vehicle. The addition of more passengers results in fuel consumption - and hence also CO₂ emissions - penalty as the vehicle becomes heavier, but the final figure in grams of CO₂ per passenger is obviously lower. Inland ship emission factor is estimated to be 245 gCO₂/pkm but data availability is still not comparable to that of other modes. Estimations based on TRACCS database, 2013 and TERM027 indicator.

Source: EEA report TERM 2014
eea.europa.eu/transport



Transportation and energy saving



Source: Energypedia



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Ceiling on Desires on Transportation

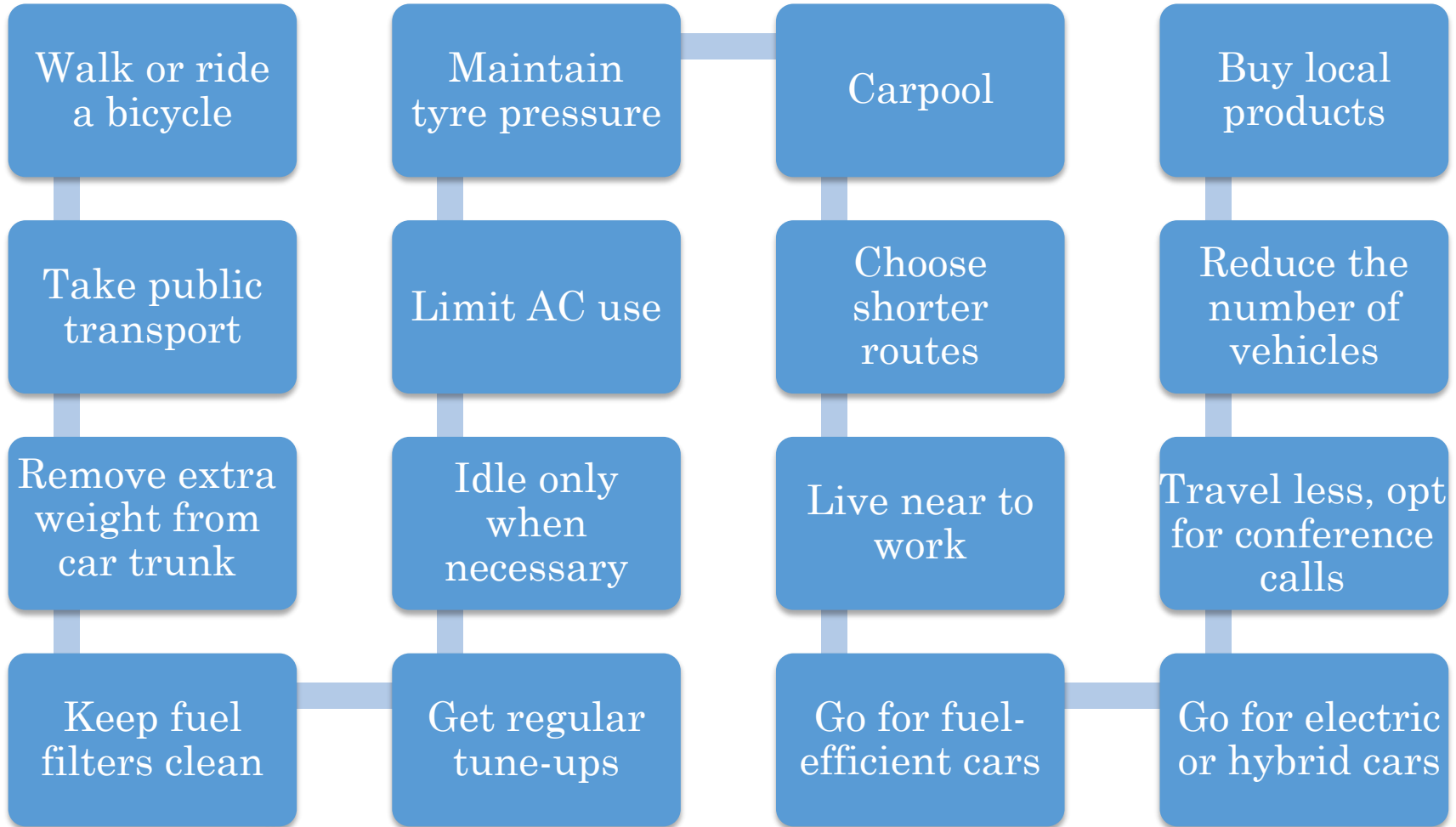
“Though man is eager to attain peace, he confronts many obstacles in the path. Those who travel by train may be well acquainted with the slogan, “Less luggage, more comfort, make travel a pleasure.” Now, man is burdening himself with limitless desires. Because of this extra heavy luggage of desires, he finds it extremely difficult to carry on the journey of life. By such proliferation of desires, he loses his balance, moves far away from his goal, and even tends to go mad.

It is for this reason that I have been stressing the need for ceiling on desires. By limiting your desires, you can attain peace to a certain extent. You have to exercise a check on your desires and make comforts to get the Grace of the Divine.”

– Sathya Sai Baba (SSS 31.18: April 25, 1998)



Energy Saving Tips in Transportation



Recap



<https://www.youtube.com/watch?v=c4iVCJ00BYA&t=12s>

Video duration – 2 min 47 secs



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Recap

- ▶ Meaning of Transportation and its evolution
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In PART 4 of Module 2 study circle series, we will cover: Energy & Technology

- ▶ Technology - meaning, evolution, and advantages & disadvantages
- ▶ Environmental impact of energy use in technology
- ▶ Relation between technology and spirituality
- ▶ How can we practice ceiling on desires in relation to technology. Identifying our 'needs' versus 'wants'
- ▶ How can Technology help the environment



Get in Touch

If you have any questions, feedback or ideas on the Serve The Planet Programme, please get in touch with the team at servetheplanet.ssio@gmail.com

JAI SRI SAIRAM!



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