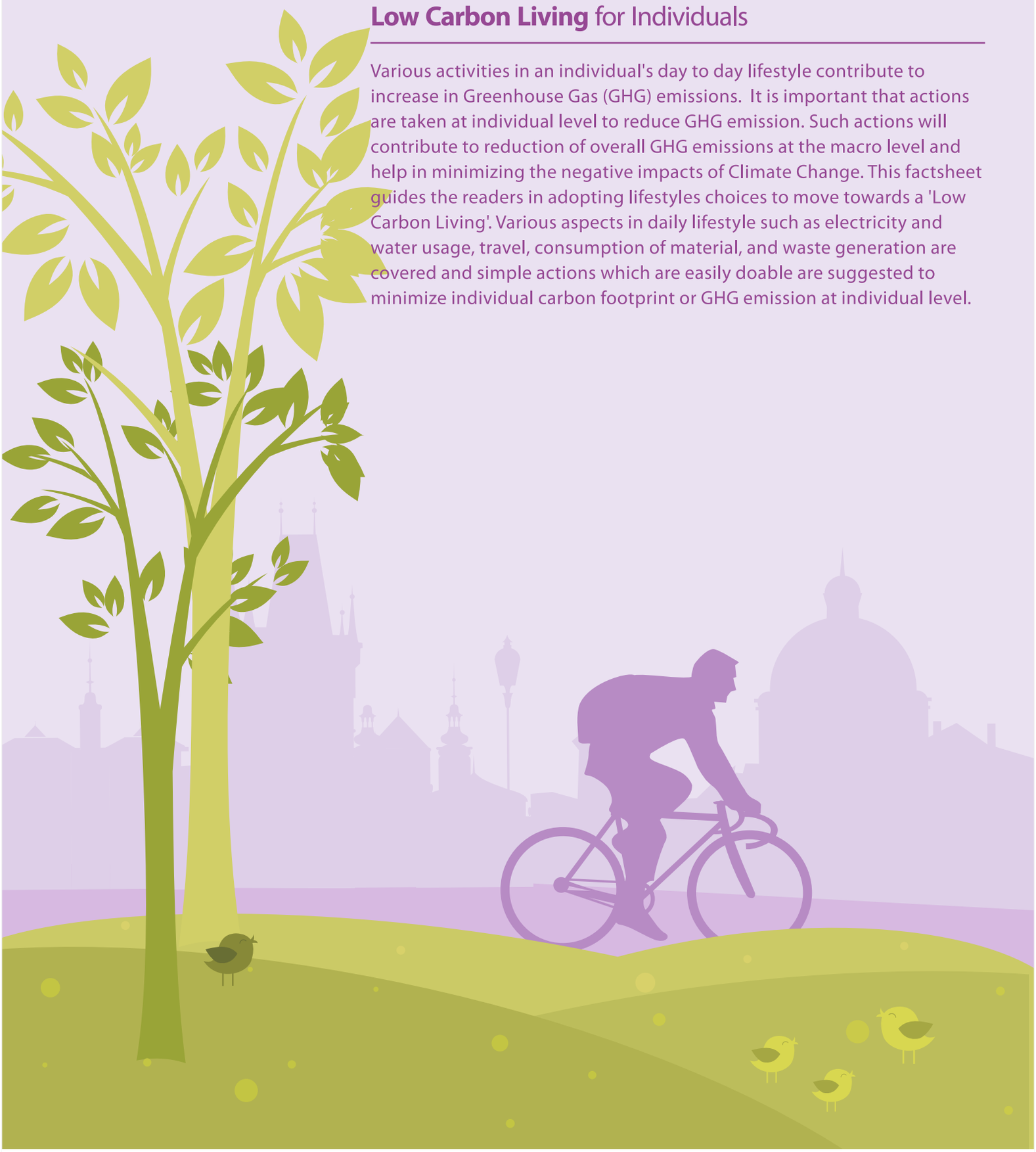
Low Carbon Living for Individuals

Various activities in an individual's day to day lifestyle contribute to increase in Greenhouse Gas (GHG) emissions. It is important that actions are taken at individual level to reduce GHG emission. Such actions will contribute to reduction of overall GHG emissions at the macro level and help in minimizing the negative impacts of Climate Change. This factsheet guides the readers in adopting lifestyles choices to move towards a 'Low Carbon Living'. Various aspects in daily lifestyle such as electricity and water usage, travel, consumption of material, and waste generation are covered and simple actions which are easily doable are suggested to minimize individual carbon footprint or GHG emission at individual level.



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Importance of voluntary actions by individuals to reduce Greenhouse Gas emissions

Various initiatives have been started on a global level and national level, such as the 'National Action Plan on Climate Change' (NAPCC) for India, to reduce the human induced Greenhouse Gas (GHG) emissions that lead to global warming and Climate Change. While such actions address global warming on a macro level, each individual should also be aware of his/her contribution to global warming and ways to reduce it. Most of the GHGs are emitted due to burning of coal for power generation, combustion of fuels such as petrol and diesel for transport, construction work, decomposition of waste and activities in residential and commercial buildings. **The sum of GHG emissions from activities pertaining to the personal life of an individual is his/her 'personal carbon footprint'. Carbon footprint is greatly influenced by the type of lifestyle choices (such as transport modes, residential energy use, electrical appliances purchased) that an individual adopts on a day to day basis.** Shifting to a 'Low Carbon Living' by voluntarily changing thelifestyle choices. This can enable individuals to greatly reduce their personal carbon footprint, and increase their contribution in combating to Climate Change. Moreover, as Low Carbon Living can be practiced mainly by behavioral changes, **the accompanying costs are negligible compared to macro level and policy actions.**

Lifestyle choices to move towards Low Carbon Living

Major contributors to an individual's carbon footprint are seen to be electricity use at home and fuel used for transport. Food, consumption of materials and water, and waste generation also influence the individual's carbon footprint. Tips for practices that can be adopted to reduce carbon footprint both individually and collectively, in various aspects of daily lifestyle are as following:

1. Electricity Use

- Save wastage of electricity by switching off appliances such as TVs, lights, air conditioners (ACs), computers/laptops and fans when not in use
- Switch off appliances completely from the main plug switch, instead of keeping the devices on standby mode. Devices such as TV and set top box, when switched off by the remote and not from the main plug switch, consume significant electricity on standby
- Use energy efficient lighting such as Compact Fluorescent Lamps (CFLs) and Light Emitting Diodes (LEDs) which consume lesser electricity than the conventional incandescent lamps (ICLs)
- Buy 'Energy Star' rated appliances like refrigerators, fans, washing machines, and air conditioners, which although having relatively higher cost of purchase, help save electricity costs greatly during their lifetime and payback for the high initial costs in a short time
- Try using natural daylight as much as possible and use focus lighting such as study table lamps instead of lighting up the entire space
- Install solar water heaters, which have zero GHG emission, in place of electrical geysers
- Raise the temperature setting of ACs to 25°C to realize substantial reduction in electricity consumption

2. Transport

- Avoid using vehicles for short distances or running errands, try walking or bicycling instead
- For longer distances, try to use public transport such as buses or trains which carry more passengers and thus have less GHG emission per passenger for the same distance as compared to private vehicles
- If using a car is not avoidable, start carpooling with co-workers, family, or friends
- Reduce kilometers travelled, especially by flights abroad during vacations, instead selecting locations closer to home
- Follow good driving practices such as maintaining a steady speed, switching off ignition at traffic signals, inflating tires on a timely basis, and carrying out regular maintenance
- Retrofit the cars with Liquid Petroleum Gas (LPG) or Compressed Natural Gas (CNG) kit, as these fuels have lower GHG emission

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3.

Food

- Follow energy efficient cooking practices such as cooking in covered containers or using pressure cookers, keeping burner pans clean, and bringing refrigerated food items to room temperature before cooking
- Avoid buying processed food items and items from foreign countries as the manufacturing, packaging and transport process involved in these contribute to increased level of GHGs
- Buy locally grown vegetables and fruits as they have don't need to be transported over large distances

4.

Consumption of materials

- Minimize paper use and print only when absolutely essential. Print back to back to save usage of paper
- Avoid using plastic bags and carry cloth bags while shopping or running errands
- Avoid buying disposable items and also materials that come with excessive packaging such as paper and paperboard used for packaging, etc

5.

Water

- Ensure that the tap is not running continuously while brushing or cleaning utensils
- Install water saving faucets and shower heads, and ensure that the water flow pipes are leak free and well insulated
- Ensure that the washing machine is always run at full loads. Try to minimize use of hot water for washing. Also avoid using a dryer and try to 'line dry' the clothes in sunlight
- Installing rainwater harvesting systems can ensure adequate water supply while also reducing the energy required for pumping water from municipal water sources or bore wells.

6.

Waste

- Try to reduce the quantity of waste you generate thereby reducing the carbon footprint due to increased disposal of waste
- Try to reuse old items as much as possible and repair broken items, if needed
- Recycle your paper, plastic and glass waste by handing it over to an authorized recycling dealer in your area
- Separate wet waste like food, which can be used for composting, from the dry waste. If there is no community composting facility available to deposit the wet waste, try 'home composting' methods.

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Decarbonize your life

Annual reduction of CO_2 emission and monetary savings for a few simple low carbon actions

	Annual CO_2 emission reduction	Annual monetary savings
Using a fan instead of an AC (4 hours daily use for 6 months)	**1,327 kg**	**₹ 7,464**
Taking one car off the road by car pooling to work (40 km daily)	**1,321 kg**	**₹ 42,045**
Replacing a no-star 1.5 ton split AC by BEE rated 5 star AC (8 hours daily use for 6 months)	**791kg**	**₹ 4,450**
Installing a solar water heater instead of 25 liter electrical geyser	**670 kg**	**₹ 3,770**
Avoiding air travel for distance 5,000 km during vacations	**600 kg**	**₹ 13,000**
Regularly inflating the tyres of the car	**150 kg**	**₹ 4,790**
Cooking rice and dal in a pressure cooker instead of cooking pots or pans	**125 kg**	**₹ 1,320**
Switching off TV and set top box from the plug point and not on standby (18 hours daily)	**104 kg**	**₹ 585**
Reducing paper use by printing only when necessary and on both sides for 500 sheets	**87 kg**	**₹ 230**
Replacing 100 watt incandescent lamp by 20W CFL (3.5 hours daily use)	**82 kg**	**₹ 461**
Reducing daily municipal water consumption with various measures by 100 liters	**63 kg**	**₹ 127**
Reducing gas use by 20 minutes per day by using fuel efficient cooking methods	**62 kg**	**₹ 660**
Walking for short trips instead of using a car (1 km daily)	**48 kg**	**₹ 1,534**

(Adapted from Ministry of Environment and Forests (2010): 'Low Carbon Lifestyle')

For further information, Refer to :

1. Ministry of Environment and Forests (2010): 'Low Carbon Lifestyle' for Low Carbon Campaign during Commonwealth Games 2010, New Delhi
Available at:
http://moef.nic.in/downloads/public-information/toolkit-sgp.pdf

2. The Low Carbon Lifestyle Tour (2007): **The Guide to Low Carbon Lifestyles**
Available at:
http://www.lowcarbonlifestyle.org/downloadables.html

3. WSP Environment & Energy: **Opinions on a Low Carbon Future-A new research study**
Available at:
http://www.wspenvironmental.com/media/docs/newsroom/Low_Carbon_Futures_-_Research_Study.pdf