

[RETURN TO ONLINE PROFILE](#)

TIPS FOR GOOD PRACTICE

Management and monitoring

- Establish benchmarks for your energy use: calculate average energy consumption per guest (eg 50 kwh per bed per night and/or kwh per m² of serviced area).
- Introduce sub metering.
- Nominate Green champions and reward performance.
- Draw up an inventory of main energy-consuming devices, processes and areas and identify options to save energy.
- Set targets to reduce your annual energy consumption and review annually. Aim for a minimum of 5% reduction each year.
- Measure your electricity and on-site fuel consumption on a regular basis to monitor progress.
- Set and monitor targets for increasing your renewable energy use. Aim for 20% or more in five years.
- Measure your carbon footprint and aim to be carbon neutral in five years.

Energy efficiency measures can reduce the energy costs of lighting by more than 50% while still maintaining the atmosphere crucial to business.

Raising awareness



Green Team at Evolve Back Coorg

- Brief staff to conserve energy through notices, checklists, stickers/notes on appliances and awareness training (eg turning off lights and turning down heating/air conditioning in unoccupied rooms or staff only areas).
- Encourage guests to conserve energy through notices and briefings.

Equipment and maintenance

- Choose energy efficient labelled appliances and equipment and ensure they are regularly maintained. For India see [BEE star](#) - five star is best.
- Repair or replace faulty equipment.
- Turn off lights, computers and other equipment at night or when not in use.
- Regularly check and power down unused equipment (eg kitchen exhaust fans).
- Regularly inspect equipment and repair or replace damaged equipment. Energy consumption can increase by up to 30% if regular maintenance is not undertaken.⁸
- Service all major energy using equipment regularly in accordance with supplier recommendations.
- Clean or replace air conditioner filters regularly. Dirty filters restrict airflow and can cause the system to run longer increasing energy use.
- Clean light fittings on a regular basis.
- Include filter changes, coil cleaning, thermostat calibration and damper adjustments in your ongoing maintenance plan.

GO GREEN SAVE ENERGY, SAVE MONEY		
APPLIANCES	Average kWh p/a	Average cost p/a INR
Swimming pool pump	2,000	14,000
Air conditioner room	1,070	7,490
Colour television on	197	1,379
Computer	130	910
Coffee maker	100	700
Stereo / Radio	75	525
Hair dryer	50	350
Ceiling fan	50	350
Iron	50	350
Telephone	36	252
Colour television (on standby)	33	231
Vacuum cleaner	25	175

(Average Cost of Power in India is INR 7 per kWh)

Guest rooms

- Display notices or provide briefings which encourage energy saving.
- Use a one switch system for turning off electricity in guest accommodation; a key operated system is best.
- Ensure staff turn off electricity and air conditioning as soon as the guest leaves if you do not have a one switch system.
- Close blinds or curtains in unoccupied rooms.
- Keep equipment such as lamps, televisions and hair dryers away from air conditioning thermostats. Heat from these appliances can affect the thermostat reading and increase energy consumption.
- Allow your guests to immerse themselves in the wilderness; cut out televisions and save energy.



Photo: Singinawa Jungle Lodge.

Lighting

- Change lighting to LEDs. CFL bulbs also offer energy saving benefits but use more energy than LEDs and contain mercury which requires careful disposal.
- Switch off or dim lights in areas that receive natural daylight during the day.
- Use solar power for pathways.
- Reduce unnecessary light pollution in exterior spaces and turn off decorative exterior lights when guests are asleep.
- Install occupancy or movement sensors for lighting walkways, corridors or rooms not regularly used.
- Replace battery torches with solar torches.

A one-switch system for guest rooms can reduce energy consumption by 15-30%.

LEDs use 25%-75% less energy than CFL bulbs

Laundry

- Operate washing machines only with full loads.
- Reduce the temperature of water used for laundry. Wash in cold water where possible using cold water detergents; this will greatly reduce energy consumption.
- Use machines with high speed spinning to reduce drying times.
- Clean the lint filter in driers before use. Lint build up blocks airflow, extends drying time and can be a fire hazard.
- Turn off lights, ventilation and air conditioning when the area is not in use.
- Schedule laundry for night-time to reduce environmental impact and cost.



Portable solar lighting at Mahua Kothi - Taj Safaris

Kitchen

- Gas for cooking is a lower carbon option than electricity in India which still relies heavily on coal. A number of lodges use a combination of liquid petroleum gas (LPG) and solar energy (see below) or biogas from biodegradable waste. LPG is a cleaner fuel than traditional biomass in Nepal such as wood. Electricity (from hydropower) is a lower carbon option than LPG.
- Minimise the opening of oven, fridge and freezer doors. Every time you open the oven door, approximately 25% of the heat escapes.
- Do not preheat ovens, fryers, grills etc for longer than necessary.
- Turn off extraction fans and lights when the kitchen is not in use.
- Ensure food has cooled before placing it in the refrigerator.
- Keep refrigerators or freezers as full as possible whilst still allowing air to circulate. A full refrigerator or freezer uses less energy.
- Clean the fridge condenser coils every three months. 25% more energy is consumed maintaining the right temperature if dust and dirt accumulates on the coils.
- Don't block air circulation around refrigerant coils or fans by putting items right in front of them.
- Check and clean kitchen equipment daily.



Photo: Pugdundee Safaris.

Back of house

- Turn off all equipment, lights and air conditioning in offices and back of house areas when not in use.
- Post notices and stickers in office and back of house areas reminding staff to turn off electricity.

Air conditioning

- Monitor and regulate temperature – every degree in reduced heating or cooling can significantly reduce energy.
- For cooling, set thermostats between 22°C-26°C; by increasing the indoor design temperature from 20°-22°C, the annual energy saving is 12.8%. Increasing the temperature to 24°C or 26°C, increases the saving to 20% and 28.44% respectively.⁹
- Maximise natural air and shading from trees to minimise air conditioning.
- Choose five star BEE (India) energy efficient ceiling fans or room air conditioners.
- Select approved low or zero-GWP (global warming potential) refrigerants. Avoid commonly used refrigerants which are particularly harmful.¹⁰

Insulation

- Ensure all water heaters and pipes are adequately insulated to minimise energy loss, inspect them regularly and repair as required.
- Assess whether roof and wall insulation can be improved using local or sustainable materials where possible.

Building and construction

- Plan building orientation and design to take advantage of natural light and ventilation balancing the use of natural light against the potential for cooling demand.
- Design building envelope to minimise energy use/loss through adequate insulation.
- Position buildings to use the natural shade from trees to reduce the need for air conditioning.
- Reducing heat gain by shading, installing double / triple glazed units and/ or having low-E coating can reduce daily cooling demand by 30%.¹¹
- Use local, sustainable materials and labour where possible to minimise carbon footprint.
- Minimise the use of concrete, an energy intensive material to produce, particularly in areas such as pathways and source it from companies certified by GreenPro (in India).
- Position water tanks close to the point of use and install gravity-fed water systems where possible.
- Plan and install renewable energy from the outset.



Ceilings at Kanha Earth Lodge are tripled lined for natural cooling. Interiors have large windows to maximise natural light and air. See case study in [Sustainable Building profile](#).

Exterior spaces

- Reduce unnecessary light pollution in exterior spaces and turn off decorative exterior lights when guests are asleep.
- Consider solar water heating systems for hotel pools where heating is needed. Use a pool cover when the area is not in use.

Use of wood and fossil fuels

- Prioritise energy efficient and less polluting fuels such as liquid petroleum gas (LPG) in India for cooking instead of wood; renewable energy is best. LPG is a cleaner fuel than traditional biomass in Nepal such as wood. Electricity (from hydropower) is a lower carbon option than LPG.
- Ensure sustainable use of wood; all firewood should come from legal sources.

Renewable Energy

- Review renewable energy options appropriate to your area (see briefing).
- Integrate renewable energy such as solar water heating and solar lighting for pathways into your energy use as appropriate.
- Monitor the share of renewable energy in relation to your total energy use; aim for 20% or more in five years. The best examples are self-sufficient with star performers contributing more energy to the grid than they consume.
- Consider developing off-site renewable energy to become carbon neutral or carbon positive.



Photo: Jim's Jungle Lodge.

Carbon Footprint

- Calculate your carbon footprint annually (see further guidance in the Resources section).
- Plan to become carbon neutral over five years.

Local Procurement and Local Transport

- Set a minimum target for procurement from local sources; the best examples achieve the majority within 50 miles or less.
- Monitor your local procurement and increase over time.
- Prioritise local, fair-trade and organic goods.
- Use local, sustainable building materials and labour.
- Grow your own organic fruit and vegetables; your guests may also enjoy visiting your growing facilities. Star performers are certified organic.
- Provide bicycles and other eco-friendly modes of transport for staff and clients eg electric buggies and e-rickshaws.
- Offer shared safaris to reduce your carbon footprint.



Photo: Kanha Earth Lodge, Pugdundee Safaris.

Community Support

- Support local community clean energy, tree planting initiatives, soil fertility and sustainable agriculture – you will be bringing benefits to your local area, reducing carbon and supporting Sustainable Development Goals.

Note on Carbon Offsetting

If you decide to offset your carbon emissions, choose a programme using independent verifiers such as [Gold Standard](#) set up by WWF. Offsetting should not be a substitute for reducing your carbon emissions.

Information included may not be appropriate to every situation, destination and country and is intended for general guidance only and may be subject to change.

REFERENCES

⁸ [Heating, Ventilation and Air Conditioning](#), The Carbon Trust 2017

⁹ [India Cooling Action Plan](#), Ozone Cell, Ministry of Environment, Forest & Climate Change, Government of India, March 2019, See p 24 - Adaptive Thermal Comfort per Ozone Cell

¹⁰ [Hotel Carbon Measurement Initiative v.1.1 Methodology](#), World Travel & Tourism Council and International Tourism Partnership, December 2016. See Appendix 3: Global Warming Potential (GWP) of Refrigerants for GWP listing of different refrigerants.

¹¹ [India Cooling Action Plan](#), Ozone Cell, Ministry of Environment, Forest & Climate Change, Government of India, March 2019, See p 24

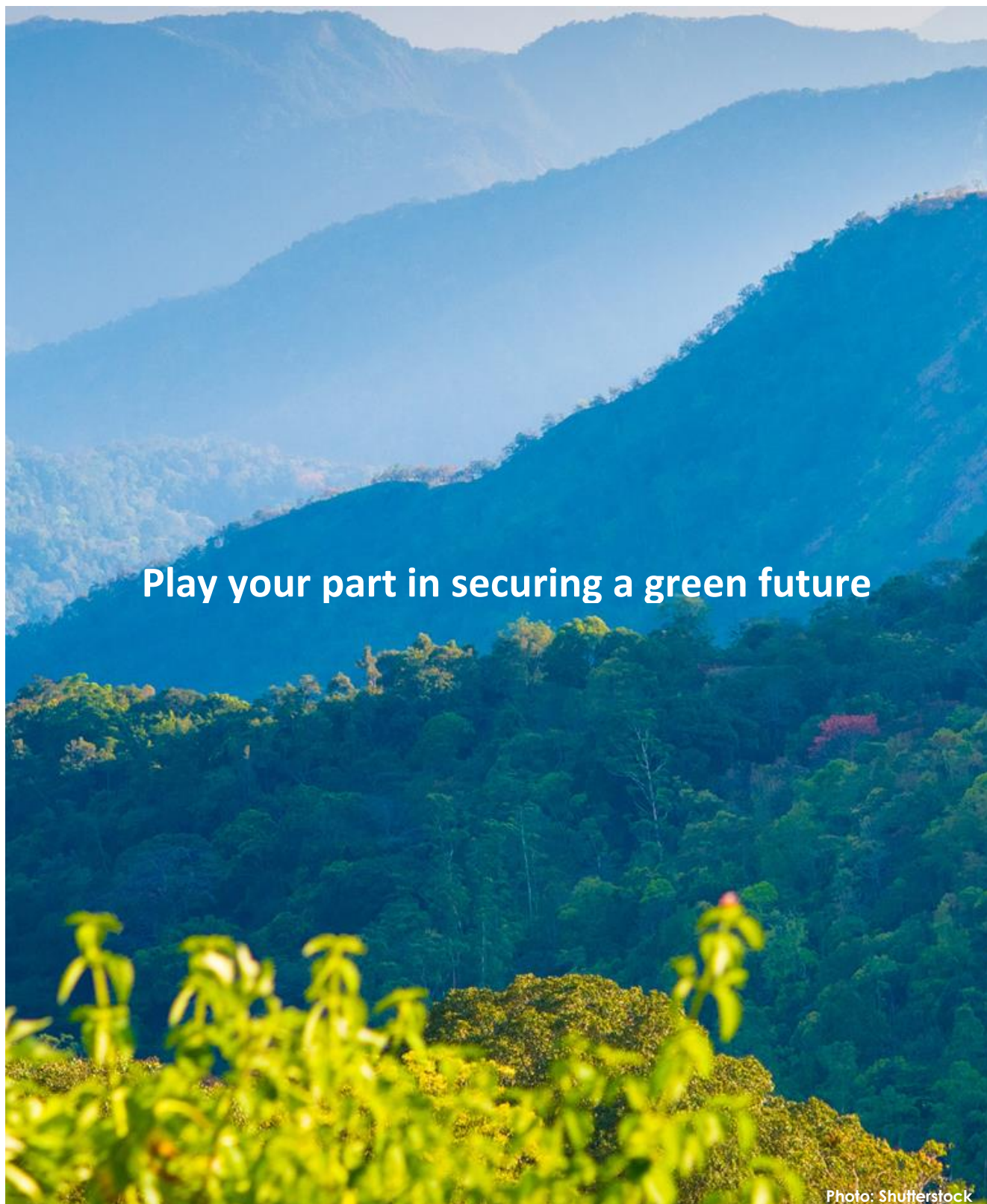


Photo: Shutterstock

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Compiled for TOFTigers by [Positive Nature](#) and [Sycom Projects Consultants Pvt Ltd](#), March 2021

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