

Jetwing YALA

YALA • SRI LANKA



GREEN DIRECTORY



GREEN DIRECTORY

Other Jetwing Green Directories:

Jetwing Ayurveda Pavilions, Ethukale, Negombo, Sri Lanka

Jetwing Beach, Ethukale, Negombo, Sri Lanka

Jetwing Blue, Ethukale, Negombo, Sri Lanka

Jetwing Kaduruketha, Wellawaya, Sri Lanka

Jetwing Lagoon, Thalahena, Negombo, Sri Lanka

Jetwing Lake, Dambulla, Sri Lanka

Jetwing Lighthouse, Dadella, Galle, Sri Lanka

Jetwing Sea, Palangaturai, Kochchikade, Sri Lanka

Jetwing St Andrew's, Nuwara Eliya, Sri Lanka

Jetwing Vil Uyana, Rangirigama, Sigiriya, Sri Lanka

www.jetwinghotels.com

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The Green Directories of Jetwing Hotels

Jetwing is active in many facets of Corporate Responsibility and the purpose of this book is to document some of our work in the sphere of environmental and community activities. We hope this will be useful to our guests, tour operators, students and the media to understand better some of the work in which we are engaged in.

Some of our informed and conscious decisions may not be readily apparent. For example, it may not be evident that a hotel has asked suppliers to reduce unnecessary packaging, has invested in training local service suppliers so that they became quality-accredited business partners or has switched to energy efficient lights etc.

What you see here is only a snapshot in time, of a continuous process, of striving for excellence and serving the community to discharge our responsibilities as a responsible corporate citizen of Sri Lanka.

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The Jetwing Vision

To Be World Class In Everything We Do

Our values

Passion: We are passionate about what we do.
Enthusiasm and devotion are part of our DNA.

Humility: We demonstrate humility by being open-minded
and having a healthy respect for others.

Integrity: Integrity is a part of who we are.
We value honesty and say and do the right things consistently.

Tenacity: Always tenacious, we take big challenges
and persist until we succeed consistently.

The Jetwing Mission

We are a family of people and companies
committed to legendary and innovative service
leading to high stakeholder satisfaction.



Jetwing Hotels' Sustainability Strategy

Sustainability underscores all aspects of operation and lifestyle at our hotels. We aim to provide world class service to our guests, while striving towards social and economic progress for all stakeholders and reducing our ecological footprint.

The Sustainability Strategy guides us in our continuous improvement in key impact areas.

- Carbon Dioxide released through burning fossil fuels is the largest source of greenhouse gas responsible for global climate change. We strive towards carbon neutrality at the operations level of each hotel, not primarily through carbon offset but by minimizing emissions through innovation and tenacious efforts to reduce our fossil fuel usage and increase generation of renewable energy.
- With population growth, natural resources and services are in high demand and limited supply. The hospitality industry is an intense resource consumer and in an effort to reduce our burden on the environment, we focus on resource optimization and management to reduce consumption as well as increase reusability of waste produced on our sites.
- With high rates of habitat loss occurring globally, we are ever conscious about impacting the natural systems and organisms with which we share this planet. We strive to protect, and spread awareness about the flora and fauna in the diverse and sensitive habitats in and around our hotel properties.
- Our undying love for Sri Lanka and her culture has us eager to preserve and share the country's rich and diverse heritage with our guests while also being mindful to retain its unique authenticity. We are also committed towards passing along the economic and social benefits of sustainable tourism to the community through livelihood development and support.
- As a family of people we are committed to providing our associates with an enriching and equal opportunity work environment to promote employee satisfaction, welfare and empowerment. Through personal and professional development opportunities and interest based organizations and events we encourage a holistic experience marked by innovation, exploration and growth.
- Our islandwide presence requires the transport and movement of large quantities of material and supplies. In order to minimise the negative impact on people and the environment we are dedicated to minimising imports, supporting the local economy, internalizing the supply chain wherever possible and encouraging supplier responsibility.

Jetwing Energy Management Policy

Respect for the environment and a commitment to the principles of sustainable environmental management are among the guiding principles of Jetwing Hotels. We at Jetwing understand and believe that energy is a valuable commodity and conservation of energy is the need of the hour. In this endeavour, to continually improve our energy performance we commit to:

- Integrate energy conservation strategies in all our activities and consider our commitment to the environment when making business decisions.
- Purchase energy efficient equipment, goods and services and increase energy performance by design improvements.
- Promote wherever possible renewable and sustainable energy sources, taking advantage of energy resources available in the area.
- Set energy targets and regularly monitor and evaluate energy performance among the group hotels.
- Document and communicate energy performance data to all levels within the group.
- Review objectives and targets on an annual basis with the aim to continually improve on minimizing the environmental impact of our operations.
- Raise awareness on energy conservation of all new and existing employees through the provision of appropriate training.
- Comply with all applicable local laws, international regulatory standards and other requirements.
- Monitor and reduce our carbon footprint and work towards a carbon neutral future.

While it is the responsibility of all associates to apply the principles of this policy through commitment and actions, the policy will be implemented under the authority of the Energy Manager of the hotel.

Jetwing Environmental Policy

Jetwing Hotels take all possible steps to protect and maintain a clean and healthy environment.

We are committed to:

- Conserving our natural resources by minimising our negative impacts through the implementation of routine actions and by sustainable management, as well as through education;
- Wherever possible, protecting and enhancing all ecosystems;
- Conserving energy and water;
- Minimising pollution by reducing the use of harmful substances;
- Reducing, reusing and recycling waste;
- Making all efforts to mitigate and adapt to climate change;
- Continual improvement by means of minimising environment aspects;
- Complying with relevant environmental legislation and regulations;
- Employing local people wherever possible;
- Purchasing local products and services, where possible and feasible, in accordance with our environmental purchasing policy;
- Always seeking to achieve a safe and sustainable environment for our community, future generations and ourselves.





Introduction: Infinite Growth Economy in a Finite Planet

There are over seven billion people on earth who need food, clean water, clothing, shelter, good health and other basic amenities. All these services are obtained from the environment — from ecosystems, to be specific. Provisioning ecosystem services provide humans with goods such as food, fuel, medicines, clothes and shelter. Supporting ecosystem services such as the diversity of flora and fauna; primary production (the manufacture of food by green plants that sustains life on earth); pollination; soil formation; the balancing of gases in the atmosphere that provides oxygen for most life on earth; degradation of waste; cycling of essential nutrients and water — all affect human health and well-being. Mangrove ecosystems for example provide a physical barrier to storms and their roots serve to regulate floods, while forests make the climate even, providing regulating ecosystem services. Cultural ecosystem services provide humans with non-material benefits through spiritual enrichment, development of learning, recreation and aesthetic experience.

Ironically, although human well-being is so intimately inter-linked with ecosystems, in seeking to improve their well-being, humans are over-using, over-stressing and over-exploiting biological resources and damaging the environment. By doing so, they are destroying the very resources they need to improve the quality of their lives.

Although the use and consumption of biological resources are so critical for life, in recent decades and, indeed, during the whole of the last century, this consumption has been not only extreme and inequitable, but frequently unwarranted. Energy and water are used excessively and wasted. The accumulation of carbon dioxide and other gases is causing the earth to overheat with disastrous long-term consequences. Over-use of ground water is causing water tables to decrease in many countries and the quality of freshwater is being diminished continuously by runoff with industrial, agricultural and domestic pollutants. Our waste, notably plastic — the wonder product of the mid 20th century — is filling up arable and liveable land.

As stated by the World Wildlife Fund in the Living Planet report of 2012, humanity's annual demand on the natural world has exceeded what the Earth can renew in a year since the 1970s, and this 'ecological overshoot' has continued to grow over the years, reaching a 50 percent deficit in 2008. Which means that it now takes more than 1.5 years for the Earth to regenerate the renewable resources that people use, and absorb the CO₂ waste they produce, in that same year.

Tourism can place heavy, additional stresses on an already seriously overstretched environment by its greater consumption, waste production and pollution. Thus, there is a very urgent need for promotion of responsible and sustainable practices within the industry.



Jetwing Yala: Untamed Nature and Unmatched Luxury

Akin to a phoenix rising from the ashes - recovering after a decade from the devastating tsunami of 2004, Jetwing brings a truly one-with-nature concept to a more refined and elegant form with Jetwing Yala. Set within the immediate outskirts of the Yala National Park, Jetwing Yala boasts a tremendous commitment to sustainability and the environment, bringing a wildlife experience complemented with the finest in luxury and comfort.

Opened in January of 2014 and designed by renowned architect Murad Ismail, a protégé of the legendary Geoffrey Bawa, the 80 room property overlooks spectacular sand dunes and the Indian Ocean. Featuring a beautifully designed swimming pool and a spa offering a variety of treatments; along with the adjacent Jetwing Safari Camp inclusive of 10 tents, Jetwing Yala is the perfect blend of luxury and nature and a landmark that changes the face of the Deep South of Sri Lanka. Set on 38 acres of natural habitat, the hotel is about 240 km from Colombo and just 35km away from the new Mattala International Airport.

Jetwing Yala has been created from ground up to be as sustainable as possible; with the intention of conserving energy and resources, to reuse and recycle; being a part of the environment causing no harm to nature.



Biomass boiler



Vapour absorption chiller



Restaurant lit with LED lights

Energy Conservation

Energy is obtained from various environment-related sources such as fossil fuels (coal, peat and gas), wood, wind, sun and water. Since 1971, global energy use has increased by 70% and is expected to continue to increase by 2% per annum in the future.

The two largest sources of global CO₂ emissions are combustion of fossil fuels for energy and the transportation sector; and since 1970, CO₂ emissions have grown by approximately 80%. As a result of excessive use of fossil fuels, during the last century, and the subsequent increase of CO₂ concentration in the atmosphere, has contributed greatly to the greenhouse effect and warming of the Earth.

Sri Lanka's electricity consumption has been increasing through the years, doubling between 1992 and 2002. In the past Sri Lanka relied heavily on hydro-power for its electricity and therefore was dependent on the vagaries of annual monsoonal rains. During years with inadequate rainfall daily power cuts — up to eight hours a day — were imposed, seriously disrupting public life and the economy.

It is essential, therefore, that frugal use of power and energy becomes routine for everybody.

Energy conservation at Jetwing Yala

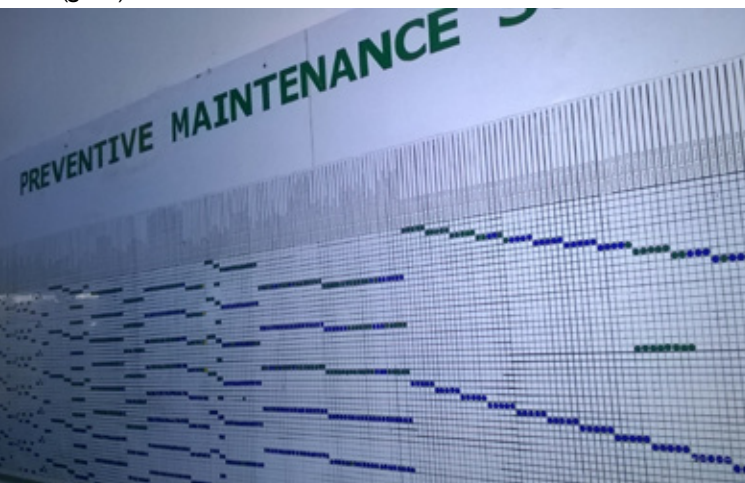
- Jetwing Yala hosts one of the largest privately owned solar PV installations in the country — a net metered system with an installed capacity of 300 kW_p. Generating on average 1500 kWh per day, this system supplies more than 80% of the hotel's 'day' time electricity demand, which amounts to 40% of the hotel's daily electricity requirement.
- Only the second hotel in Sri Lanka to use one, the Vapour Absorption Chiller (VAC) at Jetwing Yala caters the hotel's entire air conditioning requirement. The absorption chiller, run sustainably via steam generated from the biomass boiler drastically reduces the usage of grid electricity.
- The hotel by design has maximized the use of natural light and ventilation, significantly reducing the need for artificial lighting during daylight hours and artificial cooling. The reception area, restaurant, and public washrooms are designed to be open and spacious not just to be aesthetically pleasing but to allow in maximum light and ventilation.
- 100% of the artificial illumination at the hotel is provided by energy efficient Light Emitting Diode (LED) bulbs - including guest rooms, gardens and swimming pool.
- A colour coded system is used to switch on/off lights on a scheduled basis, with four switching patterns been identified according to their use. In addition, areas with large numbers of bulbs (e.g.: restaurant, conference room, garden) have pre-planned multiple switching circuits, which help reduce the energy waste from single circuit switches.



Biomass stoves in the staff kitchen



Illuk (grass) covered roofs



Preventive maintenance schedule

- A card-key system is in operation in rooms to ensure that lights, TV, fans etc., are not left on when guests are not in their room.
- Each guest room is fitted with a dual set point thermostat, which sets the air conditioner to an energy saving, set back temperature once the key card is removed. Digital pressure balancing valves have been introduced to control unnecessary flow of chilled water across fan coil units, minimizing the load on the central chiller system.
- A centralized hot water system is used at the hotel with the total hot water requirement generated through 100% renewable energy. During day time water is heated through solar hot water panels and at night time it is heated through steam produced by the biomass boiler, which uses Cinnamon wood as a carbon neutral energy resource.
- Cooking in the staff cafeteria is entirely fuelled through sustainable means; this includes the use of industrial biomass stoves, cooking stoves fuelled by biogas and a rice steamer which is driven by steam produced by the biomass boiler. A separate biogas digester at Jetwing Safari Camp premises caters the unit's cooking fuel requirement.
- Natural material such as illuk grass (*Imperata cylindrica*) is used to cover the Zinc-Alum roof, which minimizes the heat gain through the roof to the room level below and doors fitted with door closers have minimized the escape of conditioned air from rooms.
- LED screen monitors are used for all desktop computers and LED-backlit LCD televisions, which are more energy efficient compared to traditional CRT or CCFL-backlit LCD televisions are installed in all guest rooms and public areas.
- Variable Frequency Drives (VFD) which control the speed of motors according to the load requirement or climate conditions, have been introduced for pumps and motors where the energy demand is high; such as the chilled water, fresh water and condenser water pumps and Reverse Osmosis plant to reduce the maximum demand and energy.
- A sub-metering system is in place for daily monitoring and recording of electricity consumption. A modern web-based power analyzer monitors consumption patterns in real time and provides historical data as well.
- Energy loss through cold rooms has been reduced through the installation of freezer curtains and carefully monitored door opening schedules.
- Preventive maintenance is carried out on a planned schedule. During these checks temperature controls are examined to prevent over-heating and over-cooling, light fixtures are cleaned and other equipment serviced.
- All staff including newly recruited associates are routinely trained on energy conservation.



Annual savings from energy efficiency improvements and use of renewable energy sources at Jetwing Yala

Initiative	Savings		
	Amount (Units)		LKR
300 kW _p Solar PV system ¹	446,920	kWh	6,547,378
Vapour absorption chiller ²	614,993	kWh	3,943,555
LED lighting ³	204,639	kWh	3,764,397
Key card system - room lighting ⁴	15,287	kWh	281,202
Dual set point thermostat ⁵	299,553	kg	2,396,422
LED televisions ⁶	7,636	kWh	140,457
Solar hot water system ⁷	16,322	kWh	1,773,448
Biomass boiler for hot water / steam ⁷	154,884	Litres	12,072,652
Biomass cooking stoves ⁸	10,478	kg	1,244,355
Variable Speed Drives	169,016	kWh	3,109,098

¹Financial saving calculated based on 'day-time' electricity tariff

²Associated 'Net' financial savings

³Calculated on 70% of bulbs being used for 6 hours per day

⁴Calculated on 70% of bulbs being used for 6 hours per day

⁵Calculated for 4 hours per day on stand-by mode; savings compared to biomass use (steam generation for VAC)

⁶Calculated for use of 3 hours per day

⁷Calculated compared to diesel fuel

⁸Calculated compared to LP Gas

Water Conservation

Two-thirds of the earth is water but of this, most is salt water and only three percent of all the world's water is fresh water. Of this fresh water, two percent is trapped as ice, leaving only one percent of this planet's fresh water to support all life on earth.

The rate of global freshwater consumption increased six fold between the beginning and end of the 20th century. About 20% of the world's population lacks access to safe drinking water and about 50% lacks adequate sanitation. This means that about one-third of the world's population already lives in countries in areas where water consumption exceeds the renewable freshwater supply. It has been estimated that if present consumption trends continue, two-thirds of the world's population will live in water-stressed conditions by the year 2025.

Not only is water scarce, but it is also polluted by sewage, fertilisers, pesticides and industrial effluents.

The tourism industry generally over-uses water resources for their hotels; with high consumption for swimming pools, golf courses and personal use by tourists etc. Thus, water conservation becomes extremely important in hotels.

Water conservation at Jetwing Yala

- 100% of the wastewater generated at the hotel is treated onsite and reused - saving up to 70m³ of fresh water per day.
- Main wash water and final rinsing water from the laundry is collected and treated separately, with the treated final rinse water being re-used as primary wash water. By doing so, fresh water consumption is reduced by 30% in laundry processes.
- All cisterns installed at the hotel are equipped with dual flushing capability. When compared to single flushing systems, a dual flush system can reduce water usage by up to 60% per flush.
- Rain-shower showerheads installed in guest rooms are more water efficient, using 20-30% less water in comparison with standard showerheads.
- Water-saving messages are kept in guest bathrooms to encourage guests to reuse towels, so that water and energy used for towel washing and drying can be reduced.
- Throughout the hotel, separate water meters have been installed in different departments allowing for daily monitoring of use and highlighting any excessive use.
- Preventive maintenance is carried out on a planned schedule, and during these checks, water storage tanks and taps are examined for leaks. Housekeeping staff have also been made aware about the need for vigilance about water leaks in guest rooms.
- Kitchen staff have also been trained to reduce water when rinsing dishes before using the dishwasher.
- All new and existing staff is routinely trained on the importance of water conservation.



Water saving message, to enlist guest support



Water sub meters



Dishwashing with pressure nozzle

Wastewater Management

It is estimated that of the wastewater produced globally 90% remains untreated, causing widespread pollution, especially in low income countries. Construction of hotels, recreation and other facilities often leads to increased wastewater (laundry and bath wastes, kitchen water etc.) and sewage generation. Untreated wastewater and sewage runoff can lead to the pollution of seas and lakes surrounding tourist attractions, not only damaging the environment, but also posing serious threats to human health.

Wastewater management at Jetwing Yala

- From the design stage of Jetwing Yala itself minimizing the energy use in wastewater treatment and the reusability of the treated wastewater was considered and was designed so that all grey water, black water and laundry wastewater generated at the hotel is collected and treated separately.
- 100% of the wastewater generated at the hotel is treated onsite and reused, and treatment is done via biological systems (anaerobic and aerobic) along with the gravity filtration systems.
- All grey water collected at the hotel is treated through a system consisting of an equalization tank, an aeration tank, a clarifier, a reed bed and a surface aeration system. All black water collected at the hotel is treated via a system consisting of an equalization tank, an anaerobic digestion tank, an aeration tank, a clarifier, a reed bed and a surface aeration system.
- Treated grey water is reused for the cooling towers and treated black water is reused for garden watering throughout the property. Sludge collected from the wastewater treatment plant is used as a nutrient rich soil enhancer.
- The quality of treated water is routinely checked by an accredited external company to ensure that it meets the required standards of the Central Environmental Authority.
- Reuse of treated wastewater results in a saving of 25,100m³ of freshwater, a year on average.



Wastewater treatment plant



Reed bed of the wastewater treatment plant



Treated sewage water being used for the hotel garden



Waste bins for different waste types



Windrow / batch-type composting unit



Onsite biogas digester

Solid Waste Management

In natural ecosystems, animal and plant waste and other organic matter are disposed of speedily by a suite of detritivores ('dirt eaters'), decomposing bacteria and fungi. Humans have seriously disrupted this balance by producing vast mounds of waste, much of which is non-degradable. Human trash is, therefore, accumulating globally at an alarming rate.

Urban and developed areas can generate an enormous amount of solid waste. In Asia, it is estimated that urban areas generate 760,000 tonnes of waste daily, and this is predicted to increase by 2025 to 1.8 million tonnes per day. It is estimated that the total waste generation in Sri Lanka is approximately 6,400 tonnes per day.

Apart from looking unseemly, solid waste increases the breeding spots of many disease carriers — such as mosquitoes and rats — and therefore, increases the spread of disease. Solid waste can also wash into waterways, causing water pollution or leach into and contaminate ground water. Large trash dumps can also generate methane, a greenhouse gas.

Solid waste management therefore, needs to ensure that the waste a) generation is minimised, b) collected effectively (separated into non-degradable and biodegradable waste), c) treated and d) disposed of responsibly.

The key to sustainable solid waste management is, therefore, to reduce, reuse and recycle waste.

Solid waste management at Jetwing Yala

In order to minimise waste,

- From its inception, Jetwing Yala has drastically minimised its use of plastic, for example laundry is collected and delivered in linen bags. (See also under *Use of Environmentally Friendly Materials and Purchasing*).
- Instead of plastic water bottles, Jetwing branded glass bottles are currently kept in the guest rooms. Plastic bottles are only provided for guests who are travelling on excursions or departing the hotel permanently.
- Use of plastic straws have been replaced with paper straws and the cocktail stirrers are made out of wood.
- Plastic cutlery and plastic grocery bags are not used at all.
- Plastic garbage bag use is minimised and are only used to clean-up oil from grease traps
- Office stationery is reused.



For effective separation of waste,

- All garbage and trash generated are separated at their sources of origin in all departments such as the kitchen, restaurant and bar, housekeeping, linen room, maintenance, stores and guest rooms.
- Colour coded garbage bins that separately hold glass, paper and cardboard, wet garbage, polythene and plastic are kept in each of these areas for collection.
- Housekeeping staff have bags with correspondingly colour-coded pockets on their trolleys for waste collection from the guest rooms.
- All staff have been trained and monitored in the separation of garbage.
- Guests are requested to bring back picnic boxes and plastic water bottles so that they can be disposed of properly.

For treatment and disposal of solid waste,

- All organic waste generated at the hotel is treated onsite.
- Food waste is treated via an onsite biogas digester, which generates renewable energy (for cooking); and a conventional composting system (windrow method) is utilized to compost all garden sweepings and other tree clippings.
- Dry solid waste (such as cardboard, plastic, glass bottles and metal) is sold to a third party for recycling or reuse. Income from these sales is credited to the staff welfare society.



Air Quality Management

Emissions of greenhouse gases such as carbon dioxide (CO_2), nitrous oxide and methane have increased since the time of the industrial revolution. These gases function much like glass panes in a greenhouse, allowing light in, but preventing heat from escaping resulting in a warming of the interior. During the last century, the concentration of CO_2 in the atmosphere rose by twelvefold. Humans excessively use coal, oil and petrol; factories spew out enormous quantities of CO_2 into the atmosphere; forests (that serve to absorb up CO_2) are decimated world over. Every year, globally, over 30 billion metric tonnes of CO_2 are emitted into the atmosphere. The impact of these emissions and the resultant increased greenhouse effect is a measurable warming of the earth. The last century recorded the largest increase in global temperature, with 2016 being ranked the warmest (combined land and ocean surface temperature) year on record.

As a result of this warming, profound changes are occurring in global weather patterns and resulting in climate change. Global warming is, inter alia, causing glaciers to melt, with an associated sea level rise, increasing extreme weather events (such as intense rainstorms and cyclones, floods, increased heat and drought), as well as causing changes in the world's water availability. All these changes have overwhelmingly negative effects both on human and ecosystem well-being.

Climate change, therefore, is an extremely grave environmental issue with over-arching and long-term consequences.

Effective and prompt response to the impacts of climate change has, therefore, become imperative. One way to do this would be to mitigate the effects of climate change, i.e., reduce carbon emissions. But, mitigation alone will not be enough. Even if greenhouse gas emissions are reduced drastically, the current effects of climate change will be felt for several decades more. Therefore, a second strategy for dealing with climate change — adaptation — also becomes essential. Adaptation, simply, is accepting that climate change and natural disasters will occur, and being prepared.

Meanwhile, the ozone layer, which protects the earth from harmful radiation from the sun, is being destroyed by certain air pollutants, mainly Chlorofluorocarbons (CFCs). Again, the effect of ozone depletion is acutely damaging, particularly to human health. CFCs are used in the manufacture of aerosol sprays, blowing agents for foams and packing materials, as solvents, and as refrigerants. Reducing emissions of CFCs is also, therefore, essential for wise management of the environment.



Natural oils used as air fresheners



Electric buggy carts



Tree planting by associates

Air quality management and reduction of air pollution at Jetwing Yala

- Natural air fresheners, mainly essential oils such as lemongrass, are used instead of chemical air fresheners.
- The use of other aerosols have also been reduced drastically and only used in emergencies.
- The pest control service uses biodegradable chemicals such as synthetic pyrethroids (natural pesticides found in plants of the Chrysanthemum family) for spraying.
- Picnic boxes given to guests are made of paper, not from Polystyrene foam.
- Incineration is never used as a means of garbage disposal on hotel premises.
- Vehicles and the boiler are serviced on a regular schedule to ensure optimum performance and minimum emissions.
- Environmental performance (energy star / CFC free / energy efficiency rating) is considered in the purchase of all new appliances.
- Electric buggy carts which produce zero direct emission is used to transport people and goods within the hotel premises..

Responding to climate change at Jetwing Yala: Mitigation

In order to reduce the GHG emissions associated with the hotel's operations Jetwing Yala has actively reduced its grid electricity consumption by both reducing its energy demand via energy conservation measures and promoting non-fossil fuel based (renewable) energy generation. (Discussed in *Energy Conservation*).

Overall reduction of greenhouse gas emissions as a result of actions taken at Jetwing Yala

Carbon Footprint of the hotel (metric tonnes CO ₂ per year)	1,080
Carbon footprint per guest stay (kg CO ₂ per guest stay)	24.4
Carbon emissions avoided by use of renewable energy sources and energy saving initiatives (metric tonnes CO ₂ per year)	1,323
Omission of Carbon Footprint (kg CO ₂ per guest stay)	29.8
Percentage of emissions avoided	55%

Carbon dioxide emissions reduced from hotel operations is equivalent* to Carbon sequestered by approximately 60,785 trees

*Assumption: a mature tree can absorb 48 pounds of carbon dioxide per year, (<https://www.americanforests.org/discover-forests/tree-facts/>)



Environmentally friendly chemicals used at the hotel



Natural flowers used as air fresheners



Composed organic waste used as fertilizer

Prevention of Chemical Pollution

Pesticides, herbicides and fungicides are all poisons designed to destroy pests, weeds and fungi respectively. When these poisons are washed off to waterways or leach into ground water, they cause serious water pollution, with very damaging effects for both human health and the environment. Some pesticides are known to be carcinogens, while others can cause reproductive defects and damage vital human organs. Persistent chemicals — such as DDT and Hexachlorobenzene (HCB), by definition chemicals that last without breaking down for a long time — as well as relatively fast-acting chemicals (such as N-Methyl Carbamates), have been and are being used as pesticides. When these chemicals are washed off or accumulate, animals and plants which are not target species but are beneficial to humans are also poisoned. This disrupts the ecological balance in food webs and chains — which, in turn, is detrimental to the functioning of ecosystems and thus, the various services they provide to humans.

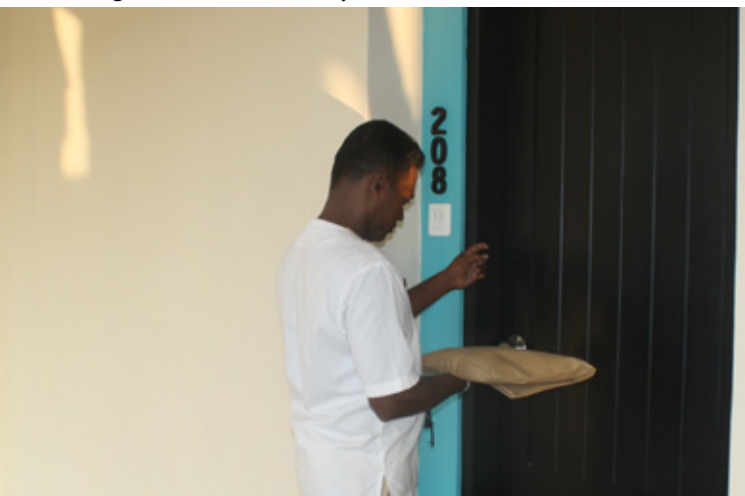
Fertilisers used to boost agricultural productivity are also detrimental to the environment because they add excess nitrates and phosphates to soil and water. In the last 50 years, nitrogen and phosphorus pollution from excess fertiliser use has escalated dramatically, poisoning both soil and water; affecting natural ecosystem functioning, and also reducing the services that the system provides to humans: clean water, fish and crustaceans, for example.

Prevention of chemical pollution at Jetwing Yala

- No chemical fertilizer is used in the hotel garden; only compost produced at the hotel is used as organic fertilizer.
- No pesticides, fungicides or weedicides are used in the hotel's garden.
- The pest control service uses biodegradable chemicals such as synthetic pyrethroids (natural pesticides found in plants of the Chrysanthemum family) for spraying.
- Natural air fresheners, mainly essential oils such as lemongrass, are used instead of chemical air fresheners.
- Chemical suppliers who are certified in selling environmentally friendly and non-hazardous products are selected preferentially.
- All chemicals are used only as per manufacturer recommendation and only when necessary.



Reusable glass bathroom amenity bottles



Laundry collected and delivered in cloth bags



Drinks served without plastic straws

Using Environmentally-Friendly Materials

Plastic, the boon of the mid 20th century, is proving to be the bane of the 21st century. Plastic may be light-weight, low cost and water-proof, but it is an ecological and waste management nightmare. It takes only 2-3 weeks for a banana peel to breakdown in the soil but it may take 100 -1,000 years for a plastic bag to do so.

Plastic not only causes waste management problems (non-degradable waste inevitably piles up) but also ecological disasters. It is reported that, every year, plastic bags kill about 100,000 whales, sea turtles, and other marine animals (many of which are endangered), often by choking on the plastic bags which resemble edible squid and jellyfish. Polyethylene Terephthalate (PET) — which is used to replace glass for containers because it is strong, cheap, unbreakable and lightweight — also does not degrade and accumulates in the environment.

Plastic and its 'relatives' are not friends of the environment, and their use must be reduced drastically, if not banned totally. The use of environmentally-friendly products in its place should be encouraged in the process of responsible environmental management.

Using environmentally-friendly materials at Jetwing Yala

The use of plastic has been drastically reduced in the hotel, and in its place more environmentally friendly alternatives are used.

- Instead of plastic water bottles, Jetwing branded glass bottles - which are bottled onsite - are currently kept in the guest rooms
- Use of plastic straws have been replaced with paper straws and the cocktail stirrers are made out of wood.
- Plastic cutlery, plastic shopping bags and plastic flowers are not used at all.
- Bathroom amenity containers such as shampoo and conditioner bottles are reusable and re-fillable glass bottles.
- Shampoo, conditioner and soaps are all herbal and natural products.
- Laundry is collected and delivered to guest rooms in linen bags.
- Coasters and good night cards are made of recycled paper and carry environmental messages.
- Fruit platters/baskets are presented without cellophane wrapping.
- Electric buggy carts are used rather than fuel driven vehicles to transport people and goods within the hotel premises.
- Wherever possible, natural material was used for the hotel's construction: for instance, flooring in all guest rooms and some public areas is made of Bamboo.



Reusable plastic crates used by suppliers



Goods delivered without secondary packing



Goods delivered in biodegradable packing

Environmentally-friendly Purchasing

As noted under *Solid Waste Management*, waste that humans accumulate is damaging the environment. The manufacture of certain products that we purchase may heavily use power and energy, thereby draining already depleted natural resources. In order to reduce this damage, we have to ensure that the products we buy a) generate waste that is mostly biodegradable, b) are energy and power saving and c) do not add to the degradation of air quality by adding CO₂ and CFCs into the atmosphere.

In addition, transporting produce and food products from far away adds to generation of more greenhouse gases. Hotels, which purchase products in bulk and transport these long distances, need to be acutely conscious of the above. To this end, environmentally-friendly purchasing is an important and vital tool of environmental management in hotels.

Environmentally-friendly purchasing at Jetwing Yala

- Whenever possible, Jetwing Hotels promote maximum purchase from local suburbs.
- Reusable crates are used when purchasing fruits and vegetables.
- Bulk purchases are made whenever possible to reduce waste from packaging material.
- Local suppliers who use environmentally-friendly packaging are selected preferentially.
- Over 90% of the suppliers deliver purchases without secondary packing or in environmentally friendly wrappings.
- The purchasing officer has been trained and made aware of the need for reduction of unnecessary and damaging packaging and therefore makes choices accordingly.
- In the replacement of pumps and motors only equipment in IE1 and IE2 energy efficiency categories will be purchased.
- When purchasing electronic items such refrigerators, only CFC free, energy-star appliances with a minimum of a three star rating are considered.

Health and Eco-consciousness

While in many parts of the world, infectious diseases such as malaria, tuberculosis and HIV/AIDS pose serious problems, in other parts of the world the so-called 'diseases of affluence' - e.g. diabetes and heart diseases - are on the increase. Although in part, these diseases are on the increase because human life expectancies have increased due to better living conditions, they have also increased due to certain lifestyles that include poor eating habits among other factors. Eating animal products high in saturated fat and cholesterol is linked to heart disease. Dietary factors are also estimated to account for approximately 30% of cancers in industrialized countries.

In addition, for the first time in recorded history, the number of overweight people rivals the number who are underweight. This spread of obesity is no longer confined to rich countries, but is linked to all the diseases of affluence. Being conscious of what you eat in terms of your health has become extremely important in today's world.

Meanwhile, some people also crave luxury foods that are rare and exotic. In addition to being grossly expensive, the increased demand for these foods has led to over-exploitation of many species. When species become threatened, often their international trade is either prohibited or regulated strictly and national laws prevent their harvest. Thus, it is important to be conscious and aware of what you may legally eat in a given country.

Health and eco-consciousness at Jetwing Yala

- To encourage guests to maintain a wholesome lifestyle, healthy alternatives are provided at all meals.
- Herbal porridges, fresh fruits and traditional Sri Lankan dishes are served at meal times.
- Only local fresh fruit are displayed and served at the hotel. Imported fruits such as apples, oranges and grapes are kept in limited quantities and served only upon guest requests.
- Wherever possible, the hotel serves organically grown vegetables from the hotel garden.
- Meats of protected species are never served in the hotel. All kitchen staff is trained to identify specimens (such as immature or egg-bearing lobsters) that are illegal to purchase.
- The Hotel is HACCP certified in food safety standards.



Herbal porridges served at buffets with write-ups



Fruit platters served only featuring seasonal local fruits



Organically grown crops harvested for hotel use



Organic vegetables grown on hotel premises



Vertical gardens along the buildings



Beach cleanup carried out by hotel associates

Landscaping and Organic Gardening

Because tourism is the world's fastest growing industry, its sheer speed and scale has had a serious impact on the environment. Where tourist infrastructure development (e.g. hotels, marinas, waste treatment facilities, groynes, golf courses, beach access and parking, etc.) has been careless, without reference to existing environmental laws, many forms of environmental damage – such as erosion, pollution, habitat destruction (clearing of forests, filling of wetlands) have and still ensue, damaging the services that natural ecosystems provide to humans.

Erosion not only causes severe ecological problems but also economic ones and facilities sited on beaches are extremely susceptible to extreme weather events and the effects of accelerated sea level rise. The erosion of beaches and consequent loss of recreational areas due to the construction of tourist facilities on the coast has led a number of countries to adopt coastal laws. In Sri Lanka too, a Coastal Zone Management Plan exists, where set-backs of no-build zones are recommended according to the vulnerability of the site.

In the global Millennium Ecosystem Assessment - habitat change, overexploitation, invasive alien species (IAS), pollution, and climate change, are identified as the most important direct drivers of change in ecosystems. IAS are introduced species that do not stay confined to the area into which they were introduced, compete vigorously with native species and have the potential of eradicating them. Pollution in the form of pesticides and fertilisers can poison waters. As reported in the Assessment, since 1960, flows of reactive nitrogen in terrestrial ecosystems have doubled, and flows of phosphorus have tripled; signifying the importance of cultivation without chemicals.

Therefore, it is imperative, that hotels ensure that their built infrastructure minimises damage to the environment, their garden landscaping is carried out with conscious efforts to minimise damage from IAS, minimise chemical pollution and to maximise ecosystem services from the environment.

Landscaping and organic gardening at Jetwing Yala

- Landscaping of the hotel was done with minimal disturbance to the native vegetation and the hotel has taken every measure to feature vegetation which is unique to the location.
- Vertical gardens are also created along the buildings - improving the aesthetic appeal of the hotel while also serving to refresh the air.
- Invasive Alien Species are controlled, as it is not practical to eradicate them.
- An organic garden spread across half an acre of land is maintained; harvesting a wide variety of fruits, vegetables and herbs for use in the hotel kitchen.
- Beach clean-ups extending beyond the boundaries of the hotel are carried out routinely.



Leopards sighted at Yala National Park



Tusker sighted at Yala National Park



Water donation to the Yala National Park during drought period

Biodiversity Conservation and Education

At the United Nations Millennium Summit held in 2000, the world's leaders acknowledged the enormity of the challenge of mitigating environment-related problems. In the same year, the then UN Secretary General Kofi Annan called for the first-ever international scientific assessment of the health of the world's ecosystems, the Millennium Ecosystem Assessment.

The results of this assessment five years later (involving over 1,000 experts from 95 countries) were alarming. Approximately 60% (15 out of 24) of the ecosystem services evaluated in this assessment are being degraded or used unsustainably. The services to humans from those ecosystems - such as fisheries, supply of freshwater, water purification, flood control, air quality and climate regulation and pest control - have also been damaged. As identified by the assessment the most important direct drivers of change in ecosystems are habitat change, overexploitation, invasive alien species, pollution, and climate change. All these threats severely affect the well-being of humans, including the collapse of the fisheries industry, the higher incidence of existing diseases, the emergence of new diseases and the increase of natural disasters. Worst of all, this degradation is worsening living conditions for the world's poor.

Thus, the creation of awareness about the present state of the planet and what individuals can do about it, as well as conservation education, has become essential facets of good environmental management.

Biodiversity conservation and education at Jetwing Yala

- The hotel's resident Naturalist interacts with the guests, staff, school children and university students to create awareness about biodiversity conservation and environmental management.
- Several excursions, promoting the conservation of Sri Lanka's natural and cultural heritage are offered by Jetwing Yala. These tours include wildlife safaris to the National Parks in the vicinity: Yala, Bundala, Lunugamavehera, Udawalawe and Kumana.
- Jetwing Yala, like other Jetwing Hotels, supports conservation activities by providing board and lodging for researchers, students and academics.
- All associates are routinely provided in-house and external training on biodiversity conservation and environmental management.
- The resident Naturalist also works closely with the local schools in the area and conducts environmental awareness programmes to the school children.
- Awareness on environmental issues is raised amongst hotel guests, associates and the local community through a series of events organized for special environmental awareness days such as Earth Hour, World Environment Day and World Tourism Day.



Future Plans for Environmental Management

The innovative sustainability efforts of Jetwing Yala has been recognized and awarded many times over the few years since its commencement. In 2015, Jetwing Yala was selected as the Best in Resource Efficiency at the Wild Asia Responsible Tourism Awards; was honoured with the PATA (Pacific Asia Travel Association) Grand Award in the Environment category, and won the Silver Award at the National Green Awards and the Gold Flame award at the Sri Lanka National Energy Efficiency Awards. In 2016, Jetwing Yala was honoured with the HICAP Sustainable Hotel Award in the Sustainable Operations category.

Jetwing Yala, as an environmentally responsible corporate citizen, plans not only to maintain these outstanding environmental standards, but also to expand their green initiatives in the years to come.

- Jetwing Yala an ISO 14001 (Environment Management System) certified establishment is now in the process of finalizing its ISO 50001 (Energy Management System) certification.

Jetwing Yala will continue its routine in house training of staff in environmental management, and periodic audits of its green initiatives will be carried out to ensure that high environmental standards are maintained.



Awareness program for local schools' students



Tree planting program carried out by hotel associates



Shramdana campaign carried out by hotel associates

Involvement in Community Development

The development of tourism can lead to social problems when local communities are excluded from that development. When jobs in both the service and support sectors are given to non-locals and products are purchased from out of town, then local communities begin to feel displaced, local livelihoods suffer and community resentment against a hotel can accumulate.

To this end, contributions to community development and improving economic linkage with local livelihoods is essential in the hospitality industry.

There is a general perception that the private sector is exploitative. In the early 20th century, corporate social responsibility by the private sector merely meant large donations to religious organisations. In the 1990s, a model of CSR that practised stakeholder involvement began to take hold in Sri Lanka's private sector. With the triple focus of people, planet and profits in sustainability reporting, such models have become extremely important.

Presently many companies now ensure that their social responsibility portfolio encompasses a wide range of issues, including responsible environmental management and community development at which Jetwing Hotels have been at the forefront.

Community involvement initiatives by Jetwing Yala

- The hotel naturalist routinely conducts conservation education programmes for students of local schools.
- The hotel maintains strong links with National Parks/ Forest department/ schools/ religious places of worship in creating a learning environment for all stakeholders.
- Donations in kind are made regularly to various local temples, hospitals and schools.
- Hotel associates routinely carry out clean-up programmes of the beach area.

Local sourcing

- Whenever possible products and services are purchased or procured locally.
- Buying local products as much as possible, essentials such as seafood, salt and sugar as well as cinnamon wood are all purchased from the locality of Jetwing Yala.
- The hotel frequently organizes safaris and excursions to the nearby national parks and the surrounding areas, and essentially employs drivers and guides who are local.



Jetwing Youth Development Programme

While industries in the country face a huge manpower shortage, in Sri Lanka we also have a massive problem with the unemployment of youth, especially in rural areas. In seeking to address these two major issues, the objectives of the Jetwing Youth Development Programme (JYDP) are:

- To address the issue of, and provide solutions for the shortage of manpower in our hotels as well as the Sri Lankan hotel industry in general.
- To involve and engage local communities in tourism, passing on its benefits to them.
- To contribute towards resolving the problem of Sri Lanka's youth unemployment.

Focusing on bridging the gap between the unskilled and the skilled, and equipping them for employment, the first Jetwing Youth Development Programme conducted at Jetwing Vil Uyana, provided free training to school leavers from disadvantaged farming families in the Sigiriya area. Based on the success of the initial JYDP, which won Jetwing Vil Uyana the PATA Grand Award (2007) in the Education & Training category, to date, 30 editions of JYDPs have been successfully completed at Jetwing properties around the island.

The 7th successive programme under the JYDP umbrella, conducted in Tissamaharama, Hambantota District, provided training for youth from the villages of Kirinda, Katharagama, Tissamaharama and Hambantota. The 8 month programme which commenced on the 15th January 2013 and concluded on the 16th August 2013; was held in collaboration with the Kavantissa Vocational Training Centre (KVTC), CARE International Sri Lanka and World University services of Canada (WUSC).

The participants of the programme are given a comprehensive training on entry level technical inputs on the four core operational areas, which are: Front Office, Housekeeping, Kitchen and Food & Beverage service. These four areas are supported with personal and professional development inputs. As it was realised that a fair level of proficiency in English was imperative to the progress of the trainees, English language classes are also conducted regularly focusing on practical, spoken English. All sessions are held under the guidance of members of the Training and Development team of Jetwing Hotels. The trainees, who are short-listed in to the departments they are potentially allocated to work at, are given on the job training at other Jetwing Hotels. Upon successfully completing the program the trainees who graduated are given an opportunity to work with the hotel and recruited as full time Associates.

At the JYDP conducted for Jetwing Yala, a total of 86 school leavers from the Tissamaharama region were given on-the-job training in hotel operations and 63 students who successfully completed the program were absorbed to the hotel carder.

The continuing success of this long running community outreach initiative was recognized and won Jetwing Hotels yet another PATA Grand Award for Education & Training in 2016.



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Abbreviations

CF	Carbon footprint
GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
LKR	Sri Lankan Rupee
JYDP	Jetwing Youth Development Programme

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Jetwing YALA

YALA • SRI LANKA

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