

Jetwing Vil Uyana

GREEN DIRECTORY



Jetwing Vil Uyana

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Designed, written and compiled by Sriyanie Miththapala

Other Jetwing Green Directories:

Jetwing Lighthouse Hotel & Spa, Galle, Sri Lanka (www.jetwinghotels.com)

Jetwing Hunas Falls Hotel, Ekaduwa, Sri Lanka (www.jetwinghotels.com)

Jetwing Beach Hotel, Ethikala, Negombo, Sri Lanka (www.jetwinghotels.com)



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THE GREEN DIRECTORIES OF JETWING HOTELS

Jetwing is active in many facets of Corporate Social Responsibility (CSR). 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.

Some of our informed and conscious decisions are not readily apparent. For example, it may not be obvious that the decision not to use plastic water bottles in our restaurants was a conscious choice. Similarly, it may not be evident that a hotel has asked suppliers to reduce unnecessary packaging, had switched to energy efficient lights or had an active programme of always striving to reduce wastage, promptly replacing leaking taps, etc.

Thanks to Jetwing, practices such as the use wildlife information boards and bird watching hides are becoming an established practice in hotels in Sri Lanka. Some areas of our work may not be so obvious. An example is the effort and money spent on training local service suppliers such as trishaw drivers so that they became quality-accredited business partners.

We would like to thank Dr Sriyanie Miththapala who is engaged in a series of on-going training programs to educate our staff on environmental best practices. She has introduced a framework of environmental audits and has documented work at our hotels in the form of Green Directories such as this.

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 Mission

To be a family of people and companies committed to provide legendary
and
innovative service with high stakeholder satisfaction.



Vil Uyana Environmental Policy

Completed in 2006, using local and rural traditions, the buildings of Vil Uyana grow not out, but into the landscape. Different 'habitats' naturalised by local flora and fauna create the timelessness of a healthy ecosystem, and provides the setting for peace and tranquility.

The challenge of introducing a wetland system on previously developed agricultural lands within the dry zone provides the unique backdrop for this exciting new property.

With rooms tastefully designed but boasting of space as its prime characteristic of luxury, and located within sight of the '8th Wonder of the World' - Sigiriya - a world heritage site, Vil Uyana is the creation of a truly 'Lifestyle Hotel'.

In creating the 'Lifestyle' within, from its inception, Vil Uyana also introduced practices to minimise environmental impact and conserve biodiversity in its environs.

The property extends over 10.1 hectares; two of this extent is used to re-grow paddy using traditional and organic harvesting methods; 1.6 hectares are dominated by the water reservoir and its associate flora and fauna; 1.2 hectares acres are being re-forested using species native to the dry zone. Encircled thus by nature, it is no surprise that the staff of Vil Uyana is committed not only to preserving and enhancing the naturalness of the environment, but also to actively prevent damage and destruction.

Vil Uyana practices responsible environmental management with the 3R concept that Reduces, Reuses and Recycles resources.

To this end, sound practices of energy and water conservation, air quality management and pollution reduction, use of environment friendly resources, recycling, environmental friendly purchasing in keeping with existing laws and regulations, have been introduced. Regular awareness programmes for both staff and guests are carried out and the need for involving local communities in these efforts is recognised. Already, Vil Uyana has been involved in providing environmental education in the area and from its inception, consulted community leaders to identify the training needs of young people who, today, form the backbone of the staff.



Introduction

There are six 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 ecosystems 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. *Regulating ecosystem services* attenuate the effects of climates and floods. *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 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. Global use of coal, oil and natural gas is 4.7 times higher now than in the middle of the last century. The accumulation of carbon dioxide and other gases is causing the earth to overheat with disastrous long-term consequences. Overuse of ground water is causing water tables to decrease in many countries and the quality of freshwater is being poisoned by runoff from industrial, agricultural and domestic pollutants. Our waste, notably plastic - the wonder product of the mid 20th century - is filling up arable and liveable land.

Tourism can place heavy, additional stresses on an already seriously overstretched environment by its greater consumption, waste production and pollution.

As stated in the World Wide Fund for Nature Living Planet Index 2006 “Effectively, the Earth’s regenerative capacity can no longer keep up with the demand – people are turning resources into waste faster than Nature can turn waste back into resources. Humanity is no longer living off Nature’s interest, but drawing down its capital.”

Thus, there is a very urgent need for responsible and sustainable use of biological resources that reduces, re-uses and recycles.



Jetwing Vil Uyana

Vil Uyana, a path breaking, ambitious project of Jetwing Hotels, located within 5km of the Sigiriya rock fortress - is the creation of a truly 'Lifestyle Hotel.' Situated within view of the fortress, on the flatlands that stretch to the west, it integrates into an ancient plan - a plan to irrigate, in the tradition of the Sinhala kings.

The hotel is the first in Sri Lanka to construct a wetland system with lakes and reed beds, from abandoned agricultural land and forest to form a private nature reserve. Based on a long history in this region of man-made lakes, for the first time in Sri Lanka, here in Vil Uyana, there are rooms built over water. Five acres of land are used to re-grow paddy using traditional harvesting methods, providing a new and exciting feature - rooms within paddy fields - yet another first in Sri Lanka!

The transformation of the land into patches of forested areas will create the feeling of ultimate privacy in the Forest Villas, the largest of the villas.

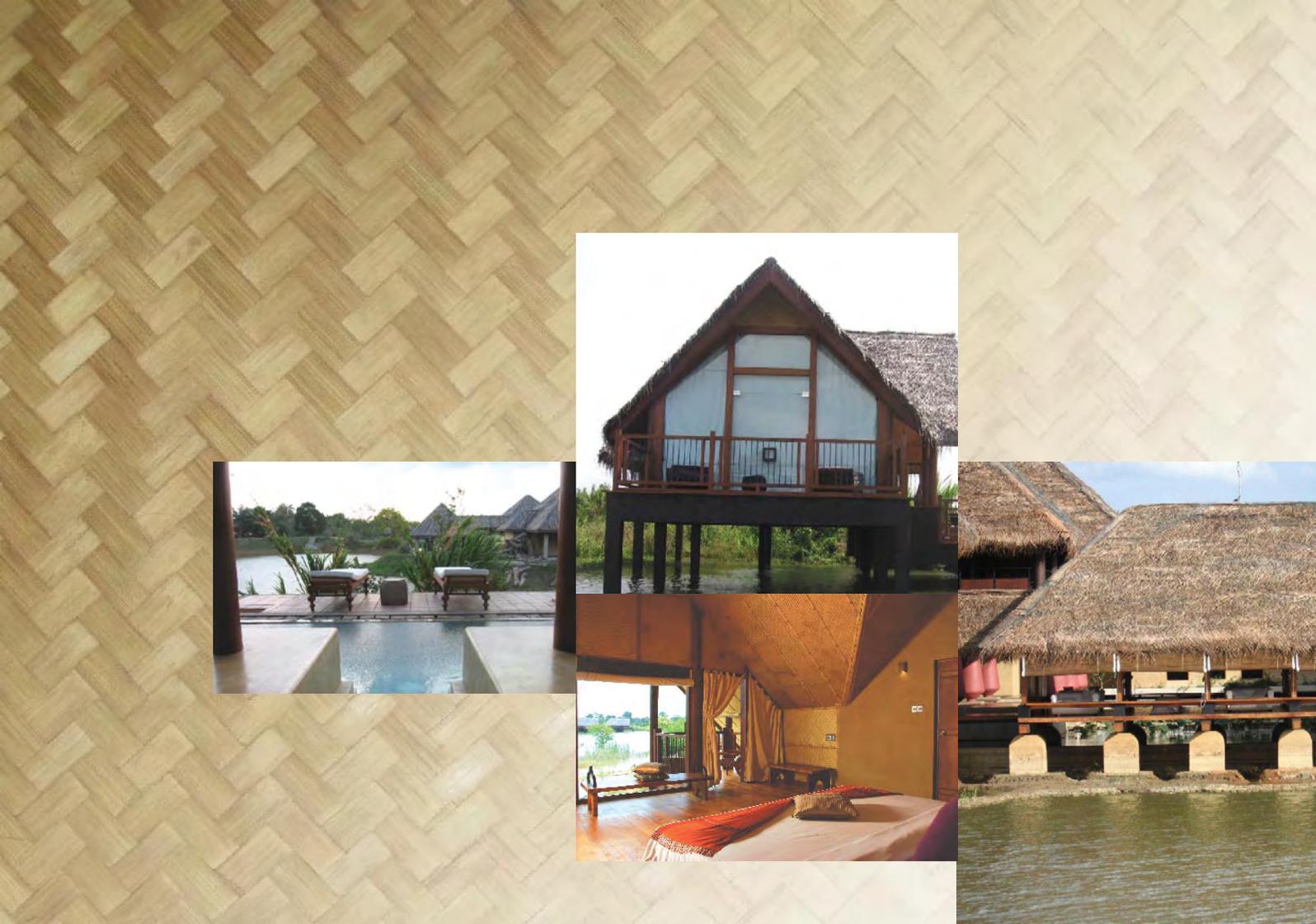
Rooms are designed tastefully, boasting of space as its prime characteristic of luxury. There are 25 beautifully designed *avasas* or dwellings set in three distinct 'habitats': seven Water Villas jutting into the water; eight Paddy Field Villas with dining decks and swimming pools facing the paddy fields; and 18 Forest Villas bordering the forested area, with dining decks and swimming pools - all spread over an area of 10.1 hectares of land. These dwellings are inter-connected by gravel roads and boardwalks.

Just three to four hours away from Colombo, located 142 kilometres northwestwards, Jetwing Vil Uyana - a member of Small Luxury Hotels of the World - offers a lifestyle change - relaxation in luxury, with minimum opulence, maximum comfort and in truly peaceful natural surrounds.

Central to the making, maintenance and management of Vil Uyana, is environmental responsibility and biodiversity conservation. Basing their actions on their holistic environmental policy, Vil Uyana staff integrate environmental management into daily management. Regular awareness programmes for both staff and guests are carried out.

Key performance areas for environmentally-sound management at Vil Uyana

Energy conservation and optimisation; Water conservation; Waste water management; Waste management; Maintenance of air quality and reduction of emissions of greenhouse gases; Prevention of chemical pollution; Erosion control and landscaping; Using environmentally-friendly products; Environmentally-friendly purchasing; Health and eco-consciousness; Corporate Social Responsibility and Biodiversity Conservation.



Energy Conservation

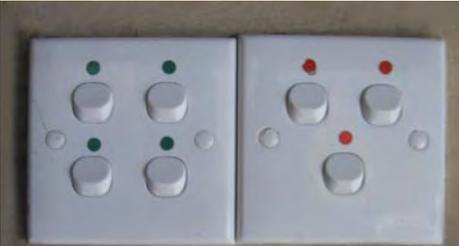
Since 1971, global use of energy has increased by 70% and is expected to continue to increase by 2% in the future. Energy is obtained from various environment-related sources such as fossil fuels (coal, peat and gas), wood, wind, sun and water. The burning of fossil fuels to obtain energy releases carbon dioxide (CO₂) into the atmosphere. As a result of excessive use of fossil fuels, during the last century, the concentration of CO₂ in the atmosphere rose by twelvefold. In Sri Lanka, the net consumption of electricity doubled between 1992 and 2002. As a result of this increase, energy resources will be depleted and atmospheric pollution will increase.

Sri Lanka relies heavily on hydro power for its electricity, and is, therefore, dependent on the vagaries of annual monsoonal rains. When there was inadequate rain in 2001, daily power cuts - increasing up to 8 hours a day - were imposed, seriously disrupting public life and the economy.

It is essential, therefore, that power and energy are used frugally in Sri Lanka.

Energy conservation measures at Vil Uyana

- A colour code system is used to switch on/off lights on a scheduled basis and a daily shift supervisor is held responsible for this.
- A card-key system is in operation in every room to ensure that lights are not used when guests are not in their room. Currently, the card key system is being fixed to the air-conditioners to save further energy.
- From its inception, Vil Uyana has been aggressive in saving electricity. Eighty three percent of the bulbs used in the hotel is energy saving, translating to a saving of 154,080 kilowatt hours of electricity per year.
- Minimum wattage is used on all lights in the hotel to reduce electricity consumption.
- Staff quarters and office areas are all built with high ceilings to maximise fresh air and without air-conditioning, translating to a saving of 2,361,600 kilowatt hours of electricity per year.
- Because solar panels could not be fitted onto the thatched roofs of Vil Uyana buildings, heat generated from condensers of air-conditioning units is re-used to generate hot water for the dwellings.
- Dimmer switches are installed in the restaurant.
- Staff are trained routinely about energy conservation.
- Energy loss through cold rooms is monitored by use schedules put up on each fridge or cold room door.
- Preventative maintenance is carried out on a planned schedule. During these checks, temperature controls are examined to prevent overheating and over cooling, light fixtures are cleaned and equipment serviced.



Water Conservation

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 overuses water resources for their hotels, swimming pools, golf courses and personal use by tourists.

Water conservation measures at Vil Uyana

- Treated water from the sewage treatment plant is used for the garden.
- Water storage tanks and taps are checked daily for leakages by a duty technician.
- Housekeeping staff have been made aware about the need for vigilance about water leaks in guest rooms.
- Notices in rooms give guests the option of reusing their towels to conserve water. This also cuts down laundry costs and use of detergents.
- The staff has been trained to reduce water when rinsing dishes for the dishwasher.
- Leaks and water tanks are checked on a roster basis, signed off daily by a designated staff member.
- Water saving cisterns have been installed.
- Preventative maintenance is carried out on a planned schedule. During these checks, *inter alia*, valves and level controls of water tanks are examined for leaks.

- Each small leak wastes a lot of water. A leak that fills up a coffee cup in 10 minutes will waste over 11,000 litres of water a year.
- A leaky toilet can waste over 83,000 litres of water in one year.
- If you leave the water running while brushing your teeth you will waste nearly 19 litres of water - that is enough to fill 13 cans of soda.
- If you leave the water running while washing the dishes you waste up to 114 litres of water - enough to wash a car.
- Water consumption in hotels is usually 500–800 litres per guest per day.
- If bed linen and towels are not washed daily, 30-50% less water and energy is used!



Waste Water Management

Human development settlements - such as hotels - result in increased sewage pollution, increased wastewater (laundry and bath wastes, kitchen water etc.). In the past, such waste has polluted seas and lakes surrounding tourist attractions, not only damaging the environment, but also posing serious threats to human health. In Sri Lanka, this practice has been stopped, in most part as a result of coastal legislation.

Many tourist facilities in the developing world lack proper sewage disposal facilities. A 1994 study of Caribbean hotels revealed that 80-90% of sewage was being discharged without proper treatment into coastal waters.

Waste water management at Vil Uyana

- Sewage is treated in a biological sewage treatment plant (STP). Sewage is collected in five raw sewage collection sumps from which it is then pumped to an equalisation tank. The sewage is then pumped into three anaerobic tanks, where anaerobic bacteria digest it. Overflow from these tanks passes into an aerated tank which clarifies the waste water and sends clear water into a garden tank, from which pipelines to the gardens extend. In this STP, no sludge is produced.
- A technician has been dedicated to check the STP every day. Every three months an external company checks the water quality, so that discharged water meets the required standards of the Central Environmental Authority.
- Kitchen water is sent through two grease traps and solid grease is treated with an effective micro-organism solution where everything is digested.

- A city of one million people produces 500,000 tons of sewage each year.
- It has been estimated globally, that the world's cruise ships discharge 90,000 tons of raw sewage and garbage each day into the world's oceans.



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 disrupted seriously 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. Sri Lanka is estimated to generate 0.89 kg per capita per day of municipal solid waste.

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. It also generates methane, a greenhouse gas.

Solid waste management therefore, needs to ensure that the generation of waste is a) 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 Vil Uyana

In order to minimise waste,

- From its inception, Vil Uyana has minimised drastically its use of plastic. (See also under Use of Environmentally Friendly Materials).
- Plastic shampoo bottles, plastic laundry bags, plastic straws and cutlery, plastic shopping bags, garbage bags have never been used at Vil Uyana. Plastic water bottles are only provided with packed lunches.
- Office stationery is reused.

For effective separation of solid waste,

- From the inception, staff in all departments have separated garbage and trash at their sources of origin. In these areas, there are colour-coded garbage bins that separately hold glass and plastic, paper and cardboard, polythene and plastic and wet garbage.
- All staff have been trained and are monitored in the separation of garbage.



For treatment and disposal of waste,

- Garden waste is composted using both above ground pits and Vermicompost pits. The latter uses earthworms - natural soil makers - to speed up the process of decomposition and yield compost (about 155kg) in one month. Excess Vermicompost generated will be sold as organic fertiliser.
- Wet garbage is sent to a piggery.
- Plastics, glass, metal and paper are sold for recycling.
- Income from selling recyclable garbage is credited to the staff welfare fund.

REDUCE!

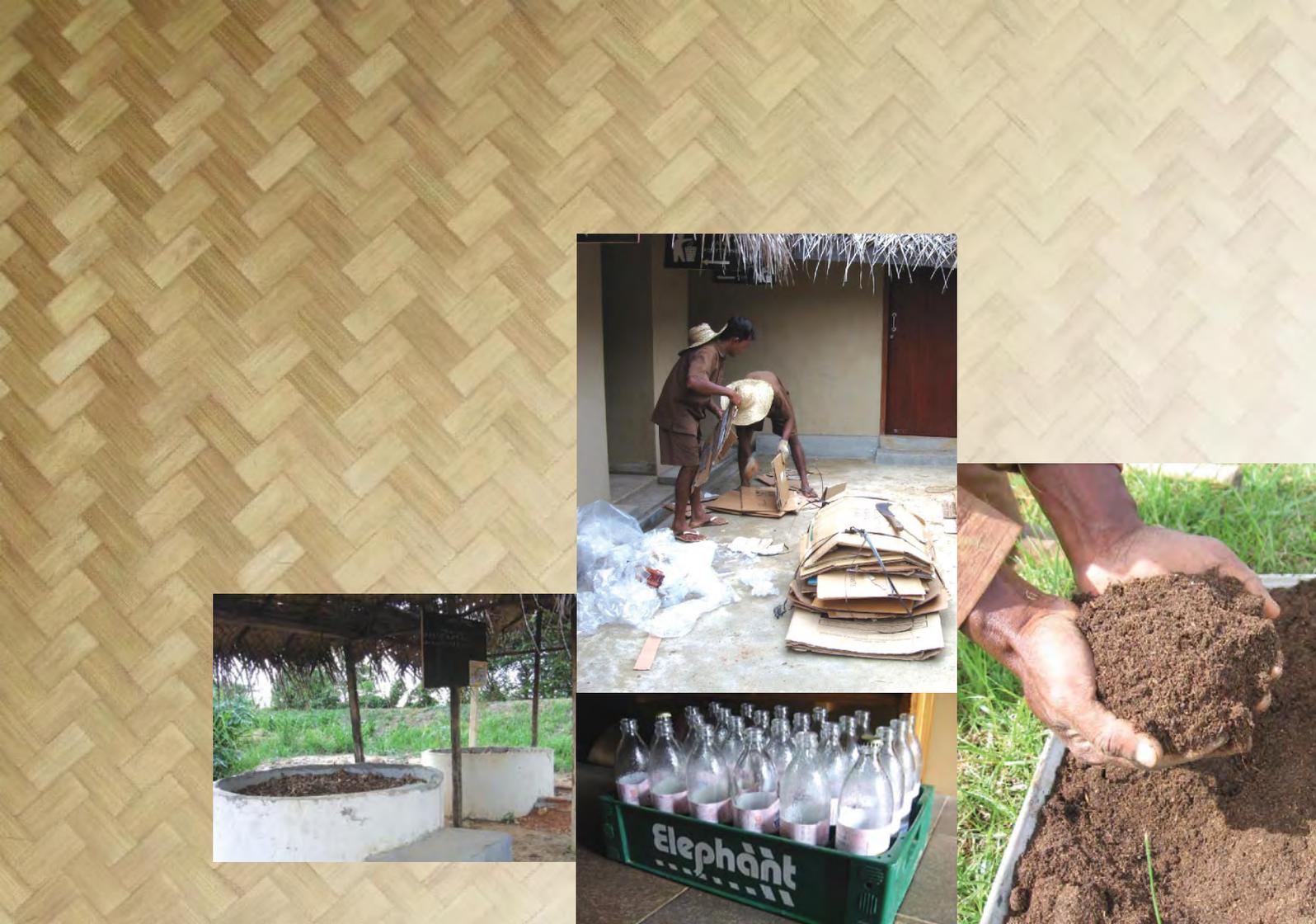
In New York City alone, one less grocery bag per person per year would reduce waste by five million pounds and save 250,000 USD in disposal costs.

REUSE!

Recycling and reusing the material in tin cans reduces related energy use by 74%; air pollution by 85%; solid waste by 95%; and water pollution by 76%.

RECYCLE!

Recycling 35% of our trash reduces global warming emissions equivalent to taking 36 million cars off the road.



Maintenance of Air Quality and Reduction of Emissions of Greenhouse Gases

Emissions of carbon dioxide (CO₂), nitrous oxide and methane (collectively called greenhouse gases) 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. During the last century, the concentration of CO₂ in the atmosphere rose by twelvefold. Humans excessively use coal oil and petrol; factories spew out enormous quantities of CO₂ into the atmosphere; forests (that serve to soak up CO₂) are decimated. Every year, about 23 billion metric tonnes of CO₂ are emitted into the atmosphere. The result of these emissions and the resultant increased greenhouse effect is a distinct warming of the earth. The last century recorded the largest increase in global temperature, with the 90s as the warmest decade in a century, and 2005 was the hottest of all.

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, as well as increased heat and drought), as well as causing changes in the world's hydrological cycles. All these changes have overwhelming effects both on human well-being and ecosystem well-being.

Global warming and climate change, therefore, are extremely grave environmental issues with over-arching and long-term consequences. Reducing the emissions of greenhouse gases has, therefore, become imperative in today's world.

Meanwhile, the ozone layer, which protects the earth from harmful radiation from the sun, is being destroyed by certain air pollutants: 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.

Air quality maintenance and the reduction of greenhouse gas emissions at Vil Uyana

- Because the garden area of the hotel is extensive (10.1ha), there is a need to transport guests to and from the reception and to their dwellings. Garden, maintenance and kitchen staff also need to transport goods from one location to another. For all these purposes, Vil Uyana uses two vans and two golf carts ('buggies') that are powered by electricity. If vehicles had run on petrol, they would have emitted approximately 7,200kg of CO₂ each year, merely for their use within the premises. (In addition to the saving of greenhouse emissions, there is also a considerable cost saving - of nearly 75,000 Sri Lankan rupees per year.)
- The use of aerosols are minimised and used only in emergencies.
- Natural air fresheners - mainly flowers - are used instead of chemical air fresheners.
- Refrigerators are all CFC free.



Prevention of Chemical and other Pollution

Pesticides, herbicides, 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 cause reproductive defects and damage vital 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 short 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 humans.

Fertilisers used to boost agricultural productivity are as detrimental because they add excess nitrates and phosphates to soil and water. In the last 40 years, nitrogen and phosphorus from sewage and excess fertiliser use has doubled and tripled respectively in the soil, poisoning both soil and water.

Excessive use of light and sound (light and sound pollution) can also affect human and ecosystem well-being.

Measures taken to prevent chemical, light and sound pollution at Vil Uyana

- Only compost from the hotel's compost pits are used as fertiliser in these extensive premises.
- Pesticides, fungicides and weedicides have never been used. For the control of mosquitoes, a natural pesticide, citronella oil, is sprayed in rooms and also provided in each dwelling. For pest attacks on plants, margosa (*neem*) oil, another natural pesticide, is used as needed. Cleaning agents are used reduced in strength and are certified as biodegradable and environment-friendly.
- Natural air fresheners - such as fresh flowers - are used instead of chemical air fresheners.
- The Pest control service uses synthetic pyrethroids (natural pesticides found in plants of the Chrysanthemum family) for spraying.
- Swimming pool water is usually disinfected with bleach (Sodium Hypochlorite), which, concentrated, is a severe irritant to the skin and ingested, is caustic and a neurotoxin. Instead of using bleach, salt water chlorination systems for pools produce chlorine by passing an electric current over special electrodes through water containing salt – a similar process that occurs in nature when lightning strikes the ocean. Such systems avoid handling dangerous chemicals, and have a low maintenance cost, but the capital expenditure needed is extensive. As a pilot project, Vil Uyana has one salt water plunge pool.
- The lights along the roadways and walkways are not only of low wattage but are also set low to reduce light pollution.
- The generator has been sound-proofed to avoid sound pollution.



Landscaping

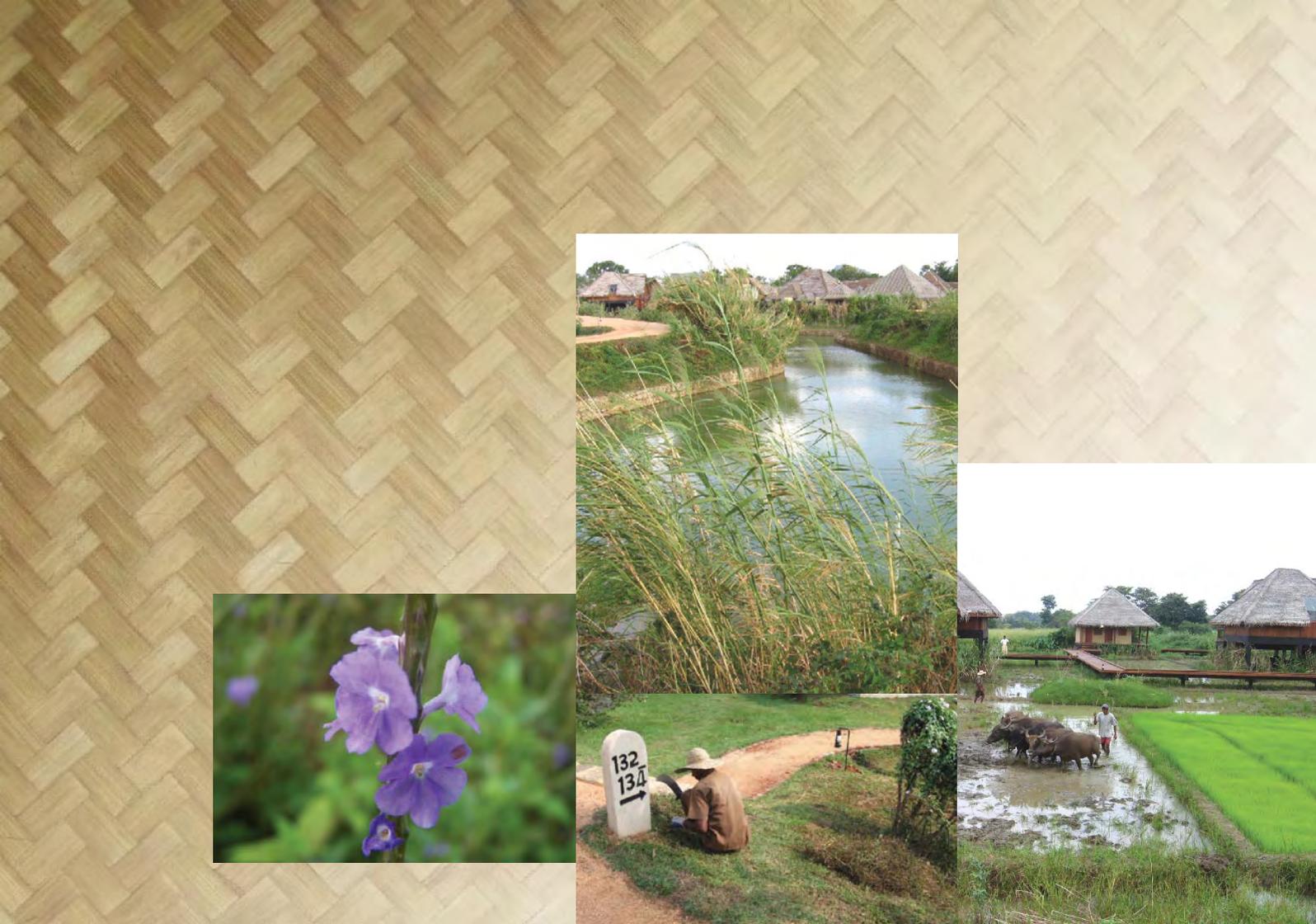
Because tourism is the world's fastest growing industry, its sheer speed and scale has had a serious impact on the environment. Where tourist infrastructure development (e.g. hotels, marinas, transport, waste treatment facilities, groynes, golf courses, beach access and parking, etc.) has been careless,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

The recent global Millennium Ecosystem Assessment has revealed that pollution, habitat destruction and Invasive Alien Species (IAS) are three of five major drivers that damage ecosystem services. (IAS are introduced species that do not stay confined to the area into which they were introduced, compete vigorously with native species, become established in natural ecosystems, and have the potential of eradicating native species. If IAS are present on hotel premises, there is always the possibility that they can spread in the surroundings.)

It is imperative, therefore, that hotels ensure that their built infrastructure minimises damage to the environment and that their garden landscaping is carried out with conscious efforts to minimise damage from IAS and to maximise ecosystems services from the environment.

Landscaping and the creation of new habitats at Vil Uyana

- Considerable care has been taken at Vil Uyana not only to keep its surrounds natural, but also to create and maintain various natural habitats; encouraging the natural growth of indigenous flora and enticing local fauna to maintain ecosystems services. A wetland habitat, comprising water bodies extending over 1.6ha; a growing forest habitat of 1.2ha and 2ha of paddy land have now been created.
- Root-balled indigenous trees were transplanted but obtained only from home gardens and not from forested areas.
- Only these indigenous trees and some native fish species have been introduced. All other flora and fauna have come in naturally.
- Vil Uyana opened in October 2006. In a space of an year, paddy has been harvested twice. Traditional methods of paddy cultivation, now fast dying elsewhere in the country, are used. Fields are ploughed using buffaloes; only wild, varieties of paddy indigenous to the region are sown; and paddy is harvested by hand and threshed in the traditional *kamatha*, again, using buffaloes. A total of 766 kg has been harvested during the course of this last year, and has been used in the staff kitchens. It is hoped that the next year's harvest will be used for guests as well.
- An organic vegetable plot is already providing some vegetables for kitchen use.
- Given the extent of land, control of IAS - particularly of the Sensitive Plant (*Mimosa pudica*) and Common Tilapia (*Oreochromis mossambicus*) both of which have invaded from nearby land - is extremely difficult. However, every effort is being made to control the former. Because these wetlands contain aquatic predators such as the Marsh crocodile (*Crocodylus palustris*) and the Water Monitor (*Varanus salvator*) it is hoped that the Tilapia population will be kept under natural control.
- Butterfly and bird attracting flora have been planted in the various habitats to enhance species richness.
- Citronella grass (*Cymbopogon nardus*) has been grown near dwellings as a natural mosquito barrier.



Using Environmentally-friendly Products

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 at least 100-1000 years for a shopping bag to do so. Plastic not only causes waste management problems (non-degradable waste will pile 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 them. Plastic bags resemble edible squid and jellyfish. In Dhaka, Bangladesh, irresponsibly disposed of plastic bags clogged up town drains and were blamed for exacerbating floods at the turn of this century.

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.

Instead, the use of environmentally-friendly products encouraged in the process of responsible environmental management.

Using environmentally-friendly materials at Vil Uyana

From its roofs to its floors and the contents in its dwellings, Vil Uyana exemplifies the use of environmentally-friendly products.

- The Architect of Vil Uyana designed the buildings with thatched roofs, woven ceilings and wooden floors - all natural products.
- Care kits, coffee, tea are kept in pouches/containers woven from reeds; room slippers are woven from reed; laundry is taken and delivered in baskets woven from the inflorescence of the Fish Tail Palm (*Caryota urenes*)
- Shampoo and conditioner bottles are in reusable and re-fillable glass bottles.
- Plastic butter containers, plastic cutlery, plastic shopping and garbage bags, plastic straws and plastic flowers have never been used at Vil Uyana.
- The shop at Vil Uyana does not sell products made from threatened or protected species.
- Whole fruits are presented in wooden baskets.
- Even the paints used in the hotel murals were all natural dyes.
- All Christmas decorations were made of biodegradable materials.
-



Environmentally-friendly Purchasing

The waste that humans accumulate is damaging the environment. (See section on Solid Waste Management.) 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.

Hotels, which purchase products in bulk, need to be acutely conscious of the above. To this end, environmentally-friendly purchasing is an important and vital tool in environmental management in hotels.

Environmentally-friendly purchasing at Vil Uyana

- Only 2% of the suppliers still use secondary packing that is not environmentally-friendly. Efforts are being made to have this packing changed.
- Awareness has been created amongst local suppliers, who now bring their goods in degradable bags or re-usable plastic crates.

- To encourage companies to use environmentally-friendly materials in packaging many governments are now adopting extended producer responsibility (EPR) laws that require manufacturers to take back products at the end of their working life.
- More than 30 countries now have EPR laws.
- Many companies are now manufacturing goods with parts that can be either recycled or reused. For example, 70-90% of weight of Xerox brand machines returned to the parent company can be rebuilt.



Health and Eco-consciousness

While in many parts of the world, infectious diseases such as diarrhoea, malaria, tuberculosis and HIV/AIDS pose serious problems, in other parts of the world the so-called 'diseases of affluence' - cancer, diabetes and heart disease - 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. In North America and Europe, more than 30% of cancers are associated with diet.

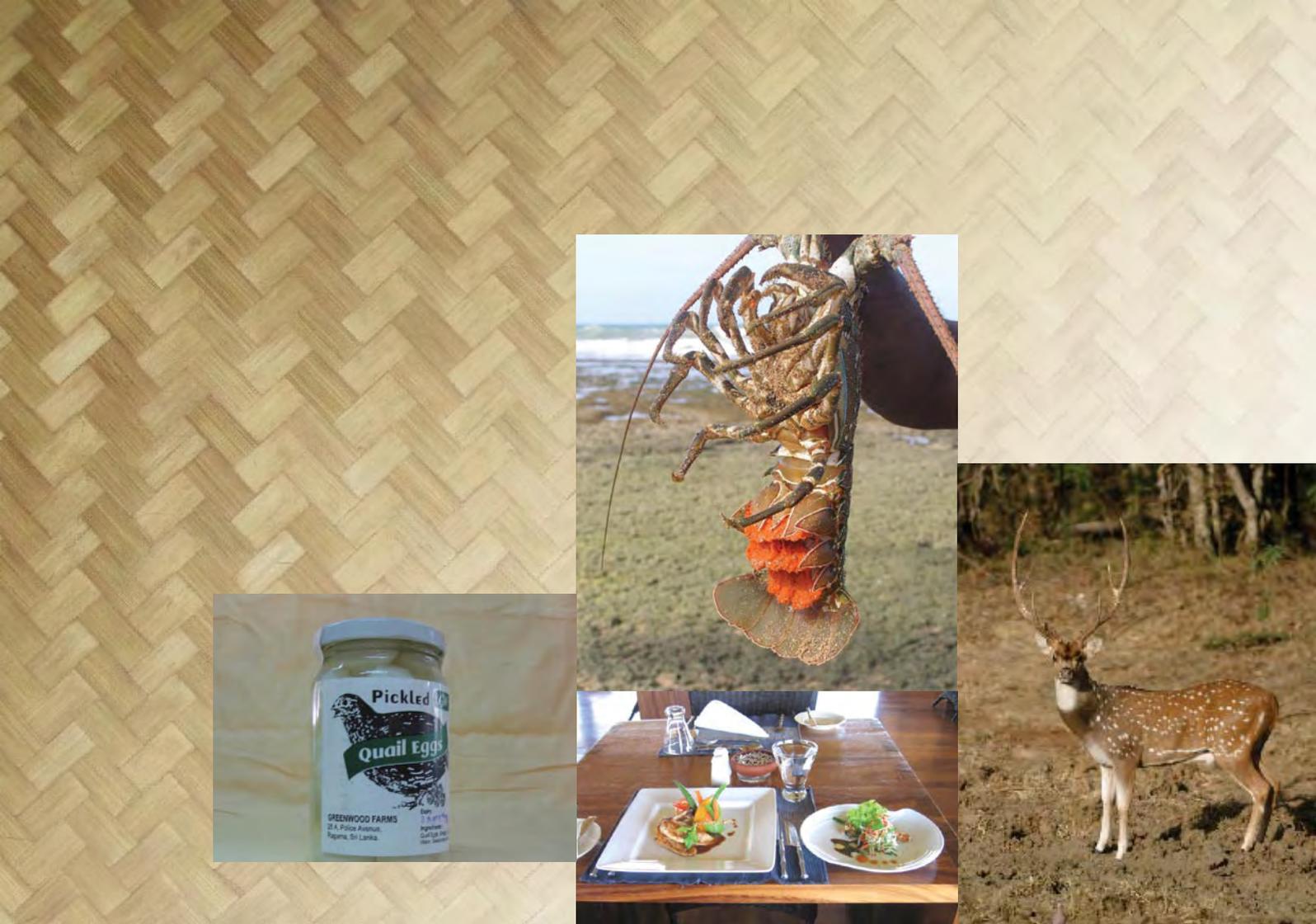
In addition, chemical pollution and excessive use of pesticides and fertilisers can make many foods unsafe for consumption.

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 extremely important to be conscious and cognisant of what you may eat in a given country.

Health and eco-consciousness at Vil Uyana

- An à la Carte menu containing healthy meals is available.
- Wherever possible, the hotel serves organically grown vegetables from the hotel garden.
- Meats of protected species - such as venison - are not served in the Hotel.
- Lobsters are purchased according to environmentally specified characteristics. During the lobster breeding season, lobsters are not served in the hotel.
- Quail eggs served in the hotel are purchased only from farms.
- Caviar is not served in the hotel.

Caviar is the unfertilised eggs of female sturgeons (and recently also of salmon and paddlefish) - a large fish that is found mainly in the Caspian sea. Over-harvesting has been the primary cause of a drastic decline in the number of sturgeons and all species of sturgeon are threatened. Americans alone import 40% of the global supply of caviar, paying 2,000 US\$ per kg.



Corporate Social Responsibility: 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.

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. It was only in the 90s and the turn of the century, that there was a growing sense that businesses had to face up to their social obligations. In the 90s, a model of CSR that practised stakeholder involvement began to take hold in Sri Lanka's private sector.

Presently many companies now ensure that their CSR portfolio encompasses a wide range of issues, including responsible environmental management and community development. In the private sector, Jetwing Hotels has been at the forefront of developing CSR programmes.

CSR programmes at Vil Uyana

Training

- The Jetwing Youth Development Project is an initiative designed to develop rural youth for suitable employment within Jetwing Hotels or create the opportunity to find employment elsewhere. This was begun at Vil Uyana, where English training was carried out for six months. On successful completion 60 youth obtained certificates. Some of the trainees are now employed at Vil Uyana. This programme won the Pacific Asia Travel Association (PATA) grand award for Education and Training.
- Staff training is carried out monthly. In all departments, environmental management is integrated into general training.

Other community involvement

- Jetwing Construction built and donated a school building for Kimbissa school, a meditation chamber for Rangirigama temple and c) part of another building in the same temple.
- Educational equipment has been donated to Palutawa and Kimbissa temples.
- A shramadana - helping to clean up the environment - was carried out in the Palutawa school ground.
- Both murals in the hotel were painted by local artists.
- Sinhala and Tamil New Year celebrations are hosted for the community by Vil Uyana.



Conservation Education and Biodiversity Conservation

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 nearly 2000 experts from 95 countries) were alarming. Of 24 ecosystems assessed, 15, or 60%, are being degraded. 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. The five major drivers of ecosystem degradation were identified as a) over-exploitation, b) invasive alien species, c) habitat destruction and change, d) pollution and e) climate change. All these threats severely affect the well being of humans, including the collapse of the fisheries industry, the emergence of disease and the increase of natural disasters. In addition, 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, become essential parts of good environmental management.

Conservation education and biodiversity conservation at Vil Uyana

- From its inception, Vil Uyana has been aware acutely of its conservation responsibilities. While the hotel was being constructed, an assessment was carried out of the species richness in the premises. After habitat creation and enrichment, a follow up assessment showed an increase in species diversity. Detailed records are kept of seasonal abundance and species variation for monitoring purposes.
- The hotel has a resident naturalist who interacts with the guests and staff to create awareness about biodiversity conservation and environmental management.
- A wildlife board for guests to note down sightings is displayed prominently in the reception.
- Nature tours – promoting biodiversity conservation – are important features of the services listed.
- The naturalist carries out routine environmental awareness programmes for the community.
- All members of staff are regularly given training and briefings on biodiversity conservation and environmental management. Most staff are capable of identifying many of the species on the premises.
- Vil Uyana, like other Jetwing hotels, supports conservation activities by providing board and lodging for researchers, students and academics. However, unlike other hotels, Vil Uyana has a dedicated dormitory and separate meeting room for this purpose, so that researchers are not dependent on low hotel occupancy to carry out their work.



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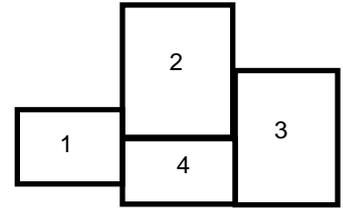
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Photocredits



Page number	Title
Cover	(1) Common Crows (<i>Euploea core</i>) and Blue Tigers (<i>Tirumala limniace</i>) (2) <i>Thelambu</i> (<i>Stercularia foetida</i>) an indigenous plant (3) Pond Heron (<i>Ardeola grayi</i>) © Gehan de Silva Wijeyeratne (4) Wildflower.
Contents page	(1) View of the dining area from the reception (2) Welcoming receptionist (3) View of dwellings from across the water (4) Lamps in the reception area.
2	View of the reception, library and dining room from across the water.
4	View of the island Spa
6	(1) Colour-coded waste bins in the maintenance area (2) Colour-codes for garbage separation (3) Reusing bags and curd pots from the kitchen to plant seedlings (4) Weighing garbage prior to selling recyclable items.
8	View of a Forest Villa.
10	(1) Looking out to the island Spa from a Forest Villa (2) A Water Dwelling (3) The Library (4) The interior of a Forest Villa
12	
14	(1) Water conservation notice in rooms (2) Maintenance staff checking the water storage tank (3) Waste water used for water the garden (4) A water saving cistern.
16	(1) Cleaning the sewage treatment plant (STP) (2) Checking the STP (3) Putting on one of the waste water taps (4) STP.
18	(1) Garbage collection rooms (2) Housekeeping garbage collection bags with separate pockets for effective separation on site (3) Dry garbage bin in rooms (4) Colour-coded waste bins in the kitchen.
20	(1) Vermi-compost bins (2) Separating garbage (3) Vermi-compost generated in a month (4) Empty glass bottles to be returned to supplier.

Page number	Title
22	(1) Electric-powered van used for transporting goods (2) Electric buggy used for transporting guests (3) Natural oils used as air-freshners (4) Fresh jasmines used as air-freshners in public rest rooms.
24	
26	(1) Blue Snakeweed (<i>Stachytarpheta jamaicensis</i>) a butterfly nectar plant (2) Wetland habitat (3) Ploughing paddy habitat (4) Removing the Sensitive plant (<i>Mimosa pudica</i>).
28	(1) Wooden fruit basket © DEvaka xxxx (2) Local artist Larry Jayaratne using natural dyes to paint the mural in the dining room (3) View of Forest Villa showing thatched roof and woven ceiling (4) Glass shampoo bottles.
30	(1) Secondary paper packaging of toilet paper (2) Reusable plastic crates for vegetables (3) Secondary paper packing for coffee (4) Eggs stored in re-usable containers.
32	(1) Label showing that quail eggs used are farmed (2) Female lobster with eggs. It is against the law to harvest a lobster with eggs or a juvenile lobster ©Anoma Alagiyawadu (3) Spotted deer (<i>Axis axis</i>) - protected by law (4) A heart healthy meal, offered as an alternate menu option.
34	(1) Building constructed by Jetwing for Kimbissa primary school (2) Meditation centre constructed by Jetwing for Rangirigama temple (3) Sharmadana at Palutawa school (4) Ongoing English classes for staff.
36	(1) Elephants (<i>Elephas maximus</i>) at Minneriya National Park, a nature tour location (2) Blue Tigers (<i>Tirumala limniace</i>) and Plain Tigers (<i>Danaus chrysippus</i>) (3) Crimson dropwing (<i>Trithemis aurora</i>) (4) A guest noting sightings on the wildlife sighting board.
38	View of Forest Villas with Water Lily (<i>Nymphaea pubescens</i>) in the foreground.
41 / 42	Panoramic view of Vil Uyana premises.

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