A RAPID ASSESSMENT OF PERCEPTIONS INTO ENVIRONMENTAL MANAGEMENT

SONEVA FUSHI RESORT AND SONEVA GILI RESORT, MALDIVES VOL 1

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ABBREVIATIONS

EE Environmental Education
MWSA Maldives Water and Sanitation Authority
MDGs Millennium Development Goals
MEEW Ministry of Environment Energy and Water
MOFT Ministry of Finance and Treasury
MPND Ministry of Planning and National Development
NEAP National Environmental Action Plan
NBSAP National Biodiversity Strategy & Action Plan
RAP Rapid Assessment of Perceptions
SGR Soneva Gili Resort
SFR Soneva Fushi Resort
SOE State of the Environment
TA Technical Assistance
TEAP Tsunami Emergency Assistance Project
WB World Bank
WDC Women’s Development Committees
WHO World Health Organisation
WIA Whole Islands Approach
WSS Water Supply and Sanitation
UN United Nations
UNEP United Nations Environment Program
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Waste management is a key environmental issue in the Maldives. The country has developed rapidly over the last few decades, consumption levels have increased significantly and the infrastructure has not been in place to deal with the corresponding increase in waste material. Recycling and reuse levels are low and the main waste management options have been to burn, dump on beaches and at sea and to send the remainder to the ‘waste Island’ Thilafushi.

Thilafushi has increased by 1 million square feet in less than 10 years. This landfill site will need to increase in size yet again unless more sustainable waste management policies and systems are introduced at resorts and other inhabited islands to minimise the amount of waste generated.

The first step in the process of developing a sustainable waste management system is gaining a deeper understanding of the current situation. At Soneva Fushi Resort we began to address the issue by conducting a waste audit. This provided an estimate of waste generated by volume and material type. We looked at how each waste component was dealt with and then considered alternative waste management options that could reduce our environmental impact.

We started to introduce new waste management systems: composting; the use of waste wood in pizza ovens; and passing coconuts through a chipper to provide mulch for the gardens. If waste is separated at source in offices, kitchens and in host and guest areas, composting and recycling of metal and plastic become viable options.

However, we realised that changing perceptions and behaviour was as important as providing the necessary equipment and infrastructure to separate, reuse and recycle. A prerequisite to a sustainable waste management system is a fundamental shift in the way we perceive and deal with ‘waste’. Rather than being something that has no further use and in many ways a problem that is taken somewhere else to be dealt with, ‘waste’ should be seen as a resource that has value, consisting of materials that can re-enter the productive process.

Before awareness-raising events in the resorts and on selected local islands were started, both Six Senses resorts in the Maldives, Soneva Fushi and Soneva Gili, invited Live & Learn to assess the environmental perceptions of our hosts and the local communities on Eydhafushi, Dhonfanu and Himmafushi. A description of the Rapid Assessments of Perceptions at the resorts and their outcomes are summarised in this document. Waste management was identified as the most pressing environmental challenge on both the resort and local islands. We therefore set out to raise awareness of the waste issue by holding workshops and introducing a new training programme in 2007.

The relationship between Live & Learn and Soneva Fushi and Soneva Gili was mutually beneficial. The workshops that Live & Learn conducted during those initial visits helped to provide initial momentum and sent out a message to our hosts that change was imminent. At the same time, the experience of working at both Soneva resorts will allow Live & Learn to work with other resorts.

We also hope to continue to support and work with Live and Learn in order to raise awareness of and find solutions to waste problems across the Maldives.

John Phillipson
Area Director (Maldives and Sri Lanka)
In early 2007 Soneva Fushi resort approached Live & Learn Environmental Education to undertake a Rapid Assessment of Perceptions (RAP) with staff from the resort and community members from Eydrafushi and Dhonfanu. This report outlines the key findings from a RAP at Soneva Fushi Resort in Baa Atoll, Maldives and a subsequent RAP at the sister resort Soneva Gili in Kaafu Atoll, which also included the community from Himmafushi. This RAP approach is an effort to better understand the local context and particularly the perceptions of the local audience on environmental issues. This report is designed to reflect on the key findings of the RAP in order to provide a basis for the development of environmental education tools and methodologies for environmental management, that are both effective and appropriate to the expectations and context of the resort and communities.

The RAP highlights significant initiatives that both resorts are actively taking in promotion of environmental management for the resort and with nearby communities. These efforts are to be applauded, and set a valuable model for other resorts in the Maldives. Although progress has been made, findings from the RAP highlight many areas of environmental management that require continued and sustained effort, especially in terms of waste, water, energy and beach erosion. Whilst the resort has taken the initiative and employed consultants and key staff with environmental backgrounds, it will be essential to mobilise the entire workforce to effectively address environmental management on the islands.

Effective environmental management requires us to reflect and build on existing and past initiatives. The RAP provides a broad benchmark from, which to develop a strategic approach to environmental management. Such an approach would be centered around an environmental management system consisting of policies, infrastructure (‘hardware’) and education and awareness programs with staff and guests (‘software’) to bring about improved environmental management. The approach itself is just another document if it is not acted on. As such the real strategy is in gaining the participation of the resort staff and communities.

The RAP highlights significant initiatives that both resorts are actively taking in promotion of environmental management for the resort and with nearby communities.
With specific regard to the environmental education and awareness program, and how to gain increased action, the following recommendations are offered:

- Develop an environmental awareness and mobilization program for 2-3 years to guide the overall implementation of activities and initiatives;
- Focus the program on relevant local needs and builds upon existing skills, knowledge and motivations to change behavior;
- Cultivate in-house expertise in participative facilitation techniques, especially in the training department to raise awareness and develop necessary skills to catalyze behavior change;
- Promote individual and participants responsibilities to act in an eco friendly manner and participate actively in environmental initiatives;
- Ensure that there are always one or two clear messages: efforts that are spread too thinly or vaguely over a range of issues may fail. This is especially of concern for short-term initiatives;
- Starting with the learner: focus on issues of most interest and that have ‘do-able’ activities, as this will serve to increase motivation and empower people to consider acting on more difficult tasks;
- In the development of appropriate tools, critical thinking needs to become a key ingredient in all Environmental Education activities;
- Combine education with action-based learning, investigating local issues (such as waste management) in order to capitalize on local participants’ willingness and skills to enable environmental change;
- Environmental Education tools and activities need to connect to everyday activities that are primarily focused on real life situations.
- Lead by example through the development of best practice environmental activities among the respective participants.
- Participation in environmental activities should not be rushed. It is critical that people have a strong sense of ownership of the activities, and then the participation process will lead to real results that are sustainable.

Our environment is an interlinked system. The RAP’s show how environmental management practices on the resorts and communities impact each other. Resorts are affected by environmental management practices on nearby inhabited islands and vice versa. Therefore improving environmental management on the resorts will only address some of the challenges. Only by taking an integrated and holistic approach with nearby island communities can meaningful strategies and solutions be shaped for effective environmental management and ultimately sustainable development in the Maldives.
KEY FINDINGS

Key Finding 1:
Soneva Fushi and Soneva Gili resorts are both pro-actively addressing environmental issues and assisting island communities.
• Soneva Fushi conducts award winning nature trips annually.
• The resorts assist communities to address environmental issues through their social responsibility funds.
• Special days are marked with involvement of school children from the respective communities.

Key Finding 2:
Resort staff are most concerned about:
• waste management,
• beach erosion,
• water and energy management,
• awareness and practices of staff; and
• pest control.
NB: The importance of these issues varied between the resorts.

Key Finding 3:
Resort staff perceive that their habits should be changed to be more environmentally friendly:
• Attitudes toward the environment are very positive among individuals and groups that were interviewed.
• Constraints exist to changing behaviour or implementing new systems.

Key Finding 4:
Staff showed positive interest in alternatives for energy and waste management:
• There was strong interest in acquiring the skills and knowledge needed to experiment with alternative energy sources.

Key Finding 5:
Training was identified as needing to be more consistent for all levels:
• The training department lacks the technical knowledge of alternatives to deal with environmental issues.
• Indigenous knowledge exists within the staff at both resorts but needs to be fostered and used to address environmental issues.

Key Finding 6:
Staff considered it important to try to deal with environmental issues themselves, and try to integrate the issues into their own training programs:
• There is good awareness and interest but a new approach or modality may be needed to change existing behaviours.
CONTEXT

The Maldives are a chain of 1,190 small low-lying coral islands grouped into 26 atolls in the Indian Ocean: 198 islands are inhabited and 80 house tourist resorts. The islands are predominantly coastal entities, and their ecosystems are among the most vulnerable in the world. Unique geography and vulnerability pose key development challenges for the country. The dispersion of the population across the archipelago raises the cost of delivering social services, as economies of scale are difficult to achieve in service provision.

In December 2004 the Indian Ocean tsunami flooded the low-lying Maldives islands, but hit with less force than in places closer to the epicenter of the Sumatra earthquake because of protection afforded by its coral reefs. However 82 people were killed, 26 more are missing and presumed drowned, and 100,000 were left homeless. Two British tourists were killed. Out of 87 resorts in the islands, 24 were damaged by the tsunami, and tourist arrivals declined dramatically (Ministry of Tourism, 2005).

On inhabited islands infrastructure was damaged or destroyed, waste disposal sites were destroyed spreading waste throughout the islands, putting public health at risk and the groundwater lens at risk of contamination from leaching of pollutants. The freshwater lens was also endangered by potential contamination from spilled oil, salt intrusion and sewage from fractured sewerage networks or damaged septic tanks. The natural disaster led to a number of environmental and public health concerns (Millennium Development Goals Maldives Country Report, 2005). In the aftermath of the tsunami the international donor community and Government of Maldives responded to the immediate emergency and ongoing development needs of the country. Efforts continue today, more than 2 years later to ‘build back better’.

The Maldives has a narrow economic base that relies on 2 critical sectors: tourism and fisheries.
LIVELIHOODS IN THE MALDIVES

The Maldives has a narrow economic base that relies on 2 critical sectors: tourism and fisheries. As most atoll workers are employed in these sectors, protecting the Maldives’ fragile coral reefs and coasts, fisheries and the marine environment, which comprise the main source of livelihood in the atolls, from polluting sources is central to any poverty alleviation strategy. Prior to the tsunami, the Maldives benefited from thirty-five years of economic growth that resulted in a per capita income in excess of US$1000—compared to an average of around US$500 per capita for the rest of South Asia. Much of the growth was due to the emergence of the Maldives as a major tourist destination, attracting upwards of 500,000 visitors annually. The fisheries sector (fishing and fish processing) is the country’s second largest industry, contributing roughly nine percent to GDP in 2004, and has continued to grow since the tsunami.

TOURISM

The ‘tourism industry has become the driving force of the Maldivian economy, contributing over 30% to the GDP, 27% to the government revenue, 70% of foreign currency earnings, and over 22,000 direct jobs’ (Ministry of Tourism, 2006). In fact one out of every five jobs in the Maldives is directly linked to the tourism sector. Tourism in the Maldives has grown each year, except for the year 2005 on account of the tsunami.

Even though only 1000 tourists arrived in the Maldives in 1972, the tourism sector in the Maldives now attracts over 600,000 tourists (more than double the local population). As of the end of June 2006, there were a total of 225 tourist accommodating establishments: 88 resorts, 108 safari vessels, 8 hotels, and 21 guest houses. Europe continues to lead as the major market contributor to the Maldives over the years, contributing 77 percent of the total tourist arrivals. (Ministry of Tourism, 2006)

The tourism sector is regulated by the Ministry of Tourism and Civil Aviation utilizing a sectoral Master Plan. The Second Tourism Master Plan 1996-2005 has been concluded and consultations for the Third Tourism Master Plan are currently underway. Unlike most tourism destinations in the world, the industry is well-regulated and bed capacity is controlled. Accommodation for tourists can be only offered in resorts and hotels in Male’ and in safari boats. Industry wide, resort bed capacity is managed by controlling density in the existing resorts and restricting new resort development (Ministry of Tourism, 2005).

ECO-TOURISM

Marketed as ‘the sunny side of life’, the Maldives is promoted as a paradise destination which capitalizes on its isolated tropical islands and spectacular marine biodiversity. As the tourist experience depends to a large part on maintaining a pristine marine environment, many resorts have recognized the importance of preserving the marine and terrestrial environment.
One of the key priorities of the tourism industry in the Maldives is maintaining the quality of the natural environment in the Maldives. The focus of the effort should be on monitoring what is happening in order to take appropriate action. The general thrust of action should concern:

- Integrating Tourism with Coastal Resources Management;
- Tourism and Marine Research;
- Developing Protected Areas (e.g. Marine Parks);
- Environmental Public Awareness Programmes;
- Resort Environmental Improvement Measures;
- Resort Infrastructure Standards.

In 1997, after celebrating over 25 years of sustainable development in tourism, His Excellency the President Maumoon Abdul Gayyoom announced an annual award for the most environmentally outstanding tourist resort: President of Maldives Green Resort Award. Previous winners include Sun Island resort (1999, 2003), Soneva Fushi resort (2000, 2005), Coco Palm Resort (2001), Angsana (2002) and Banyan Tree (2004). This award aims to generate environmental awareness, encourage development and operation of environment friendly tourist resorts and thereby facilitate sustainable tourism development in the Maldives.
The dominant natural environment of the Maldives is the marine environment. Outside the atolls the deep ocean covers a large area, and the Exclusive Economic Zone (EEZ) and the territorial waters of the Maldives cover an area of 859,000km$^2$ and 115,300km$^2$ respectively. Lagoons, reefs and to a lesser extent sea grass and wetland areas make up the marine environment inside the atolls. The lagoon and reef areas make up about 21,300 km$^2$ (MPHRE, 1998). The white sandy beaches and the vegetation found on the island periphery are very important in the Maldives island ecosystem. They form an important protection for the housing and infrastructure near to the shore, and are the main source of income for the tourism industry. The main types of ecosystems found are coral reefs, islands, sea grass, swamps and mangrove areas. Coral reefs are the major type of ecosystem that exists in the Maldives in terms of area as well the diversity of life that exists in the system. This diversity is amongst the richest in the region and the corals reefs of the Maldives are significant on a global scale as well, being the 7th largest in the world, covering a total area of 8,920 km$^2$ and contributing 5% of the worlds reef area (Spalding et al. 2001).

As the Maldives is an island nation, the extent of terrestrial biological diversity is mostly confined to the small island environments. The floral composition is considerable taking into account the absence of diverse terrestrial ecosystems and the poor and infertile nature of the soil. Islands in the south, particularly Fuvahmulah and Hithadhoo, demonstrate a richer diversification of plants than the north. The terrestrial faunal diversity is generally poor in the Maldives and is understandable in the absence of huge landmasses, forests and associated ecosystems. Webb (1988) noted that islands of the Maldives are not known for their abundant wildlife.

**BAA ATOLL**

The Baa Atoll is about 130km (80 miles) northwest of Male’ and consists of 75 islands. Thirteen of these islands are inhabited and 5 house resorts. The Atoll is made up of two geographical atolls; namely South Maalhosmadulu Atoll and Goidhoo atoll. The larger of the two atolls is South Maalhosmadulu Atoll and covers an area of 1344km and it consists of 10 inhabited islands.
The population of Baa Atoll is 12049 with a composition of 5787 women and 6262 men. It is one of the few atolls where traditional arts and crafts are now practiced in the Maldives. Eydhafushi and Thulhaadhoo are famous for making handicrafts using lacquer art designs. Other traditional craft work practiced in the atoll include rope making and thatch work, which is being extensively carried out by women in most of the islands in the atoll. Fishing and tourism related work are the major economic activities carried out by the men in the atoll. Other occupations of many men living on these islands include carpentry, masonry, retail business and construction work. Agriculture is more prominently carried out by communities living on Dharavandhoo, Goidhoo and KIhaadhoo.

Baa Atoll is considered as a good example of the rich biodiversity found in the Maldives, including large mangroves and unique diversity of fauna, such as the benthic fauna. The Atolls' coral reefs are famous for the large number of manta rays and reef sharks visiting during the southwest monsoon (during May to July). The rich coral gardens and colourful reef fish make the atoll one of the diving choices in Maldives. Maaddoo Giri, Dhonfan Thila, Horubadhoo Thila and Baiyphollhi Mas are some of the diving sites with flourishing aquatic life. In addition, the ring-shaped reef forms known as ‘faroes’ in the Baa Atoll is a reef structure which is unique to the country.

The southernmost uninhabited island of Olhugiri in Baa atoll lies 13 km north of Goidhoo Atoll. Olhugiri is well-known for its unique natural vegetation and for providing two of the only perching sites for the Great Frigatebird in the Maldives. Likewise, other marine creatures such as hawksbill turtles can be seen here too. The Fisheries Ministry of the Maldives has banned catching turtles or taking eggs from Olhugiri, which also applies to 11 other islands of the country. A UNDP funded project is currently being implemented by the Ministry of Environment, Energy and Water in Baa Atoll. The objective of this project is the conservation and sustainable use of globally significant biological diversity in the Maldives Baa atoll. The project’s three-pronged strategy is to 1) mainstream biodiversity conservation objectives into sectoral policies and programs and reinforce multi-sectoral institutional fora; 2) conserve biodiversity “in the water” and “on the ground” by establishing protected areas and managing them through innovative national-local and public - private partnerships in Baa Atoll; and 3) relieve livelihood-related pressure on biodiversity by enhancing reef fishery property rights and enabling local people to pursue more sustainable, alternative livelihoods. By the end of the project, government, local communities, and the private sector will be partnering to secure the long-term conservation of three protected areas in Baa Atoll. And, local people will be applying new knowledge and accessing new sources of financing in pursuit of alternative livelihoods.

**KAAFU ATOLL**

Kaafu Atoll comprises of four geographical atolls, namely: North Male’ Atoll, South Male’ Atoll, Kaashidhoo Atoll and Gaafaru Atoll. Of the four atolls, North Male’ Atoll consists of 25 tourist resorts and hence has gained a reputation of being the tourism hub of Maldives. With clusters of brilliant coral formations, rich aquatic life and luxury accommodation, North Male Atoll attracts tourists entering Maldives.

Male’, the capital of the Maldives is situated at the southern tip of North Male’ Atoll, whilst Thulsdhoo (capital of Kaafu Atoll) is situated on the South Eastern rim of North Male’ Atoll. Hulhule island houses the Male’ International airport and is considered as an administrative district of the capital Male’ and has been in existence since the late 70’s. The opening of the first International Airport (in Hulhule) was the beginning of a new era for the Maldivian economy as it surpassed the primary and secondary industries into the tertiary service market of tourism.

Kaafu Atoll consists of a total of 107 islands and 9 of these are inhabited. The population of Kaafu Atoll is 10216 (not including Male’) with a composition of 4872 women and 5344 men. The main economic activities of the communities in Kaafu Atoll are fishing and tourism related work. Agriculture is carried out extensively in Kaashidhoo (largest island in the Atoll).

The proximity of the islands to Male’ allow people living in Kaafu Atoll to commute between Male’ and their islands. Regular ferry services to Male’ are provided to most of these islands by the islanders or external private parties who support the communities. Some of the islands in Kaafu Atoll house special facilities, factories or farms run by the government, local or international companies. In Himmafushi there are a total of 7 such facilities:

Some of the island communities in Kaafu Atoll were severely affected by the Tsunami that hit the Maldives in 2004. As mentioned before, international donor agencies have assisted some of the communities affected in the Maldives to re-build from the effects of the disaster. In Kaafu Atoll in particular, donors have implemented projects in Kaashidhoo, Guraidhoo, Huraa and Maafushi islands.

SONEVA FUSHI RESORT AND SONEVA GILI RESORT

Six Senses is a resort and spa management and development company operating properties and products branded as Soneva, Evason Hideaways, Evason, Six Senses Spas and Six Senses Gallery. Six Senses Spas are a key element in the resorts. Six Senses owns both Soneva Fushi resort and Soneva Gili resort in the Maldives. Soneva resorts are committed to offer luxuries of the highest international standard in an environment that nurtures the indigenous feel in design, architecture and service - Intelligent Luxury.
Soneva Fushi resort (SFR) is located on one of the many coral-reef islands in Baa Atoll and is a 5 star luxury resort that houses 15 bungalows, 15 beach front villas, 14 villas and 10 villa suites. Soneva Fushi employs a total of 350 staff, 60 % of whom are Maldivian and 30 % of whom are from Baa Atoll. The resort has been operating since 1995 and is surrounded by several inhabited islands, many of which benefit directly and indirectly through interaction with the resort. The management in Soneva Fushi Resort is very committed to promoting the resort as an eco friendly option for its guests and has previously been awarded the President’s Green Resort Award on two occasions.

Soneva Gili resort (SGR) is a 5 star luxury resort located in Kaafu Atoll within 15 minutes from the capital Male’. Soneva Gili houses 44 water villa suites and employs a total of 300 staff, 62 % of whom are Maldivian. The resort has been operating since 2001 and is located in close proximity to Paradise Island (another resort) and Himmafushi (an inhabited island).

Soneva Fushi and Soneva Gili resorts are committed to reducing the environmental and social impacts of their activities and are specifically concerned about protecting the environment and benefiting the local communities in the Maldives. Through the development and implementation of Six Senses’ Holistic Environmental Management Programme, both resorts continually monitor and highlight ways in which operations can be improved. A team of key individuals at the resort have been selected to drive activities related to social and environmental issues and continuously seeks ways to better its performance.

“The core purpose of Six Senses Resorts and Spas is ‘to create innovative and enriching experiences in a sustainable environment’. The philosophy behind Soneva Gili is an ‘Intelligent Luxury’ notion, which displays lots of care and attention to the environment while providing all modern day luxuries. We have tried to leave no stone unturned in our pursuit of service and standards of comfort for guests. However, we are also conscious that the fragile environment that we live in, is one of our main attractions. Thus, we have tried to minimize the impact our development has on it and we have deliberately left some ‘stones’ as they are’. (From Social and Environment Profile)

Their Holistic Environmental Management Programme comprises policies and procedures in line with Green Globe 21 standards, which are continually updated to incorporate industry best practice. On its path to achieving sustainability, Soneva Fushi and Soneva Gili are committed to the following group-wide objectives:

**Operational Practice**

- To minimize resource consumption and waste generation through responsible waste-reduction, purchasing polices, reuse, recycling and composting programs.
- To responsibly manage energy use and to seek renewable energy sources.
- To responsibly manage and protect water resources.
- To preferentially purchase local, environmentally friendly, and socially responsible products, especially organic and fair trade products.
Planning and Development

- To integrate social and environmental concerns into planning and decision-making processes
- To continually review and improve Six Senses Holistic Environmental Management Program
- To regularly monitor our environmental impact, developing action plans through regular environmental meetings and monitoring of ‘Key Sustainability Indicators’

Climate Change

- To address the issue of climate change through both energy and resource management policies and avoiding fugitive emissions of CFCs
- To prevent any escape of hazardous substances into the environment and to phase out environmentally damaging products as soon as benign alternatives are practicable

Social Responsibility

- To donate 0.5 % of revenues to projects that will benefit both the local and global community and environment.
- To promote awareness of sustainability amongst hosts, guests, local communities and suppliers/business partners through training programs and regular environmental awareness events.
- To involve local communities and actively employ local staff and service providers whenever possible.
Environmental Legislation

• To meet, or whenever possible, to improve upon the local legislative environmental requirements and to set our own group-wide minimum standards.

• To strictly avoid the use of animal products derived from any endangered species or produced using unnecessarily cruel or environmentally destructive methods.

Since commencing operations, both resorts have been proactive in taking many environmental and social initiatives. The resort management has also allocated a social and environmental responsibility fund to conduct environmental activities in nearby communities.

AIM OF THE RAPID ASSESSMENT OF PERCEPTIONS

This Rapid Assessment of Perceptions (RAP) is a social investigative research method developed and refined by Live and Learn Environmental Education, after extensive application. It is a process, as much as a method, which has become a hallmark of all our programs. The RAP aims to assess participant’s perceptions on issues relating to sustainable development and then use these perceptions in shaping effective tools to change knowledge, attitude and practices. In early 2007 Soneva Fushi resort approached Live & Learn to undertake a RAP with staff from the resort and community members from 2 nearby inhabited islands (see separate report). When the findings of the Soneva Fushi RAP were presented, it was agreed that Live & Learn would conduct a RAP at Soneva Gili resort and Himmafushi Island as well.

This is a qualitative report and as such does not rely heavily on technical information and is not intended to serve as a technical report. The purpose of the report is primarily as background for the development of appropriate education for environmental management. Although technical knowledge may be considered stronger and is more traditionally used for reporting: actions and behaviour are often more directly linked to perceptions.

The research carried out in this RAP will be used to guide the development of innovative environment education tools for the staff at Soneva Fushi/ Soneva Gili resorts and furthermore, to advance sound environmental management in the Maldives.

The tools chosen will be based on the existing knowledge base and perceptions of environmental issues among the hosts at both Soneva Fushi resort and Soneva Gili resort, along with a review of existing approaches to environmental education and resources. A range of findings emerged from the research that will assist with identification of appropriate tools and methodologies for promoting sound environmental management within the resort. This research also forms the base-line for evaluation of project outcomes.

For environmental management to be successful it needs to be informed by an assessment of stakeholder perceptions on related issues. The RAP employed a data collection methodology that was highly participative. The perceptions of the participants were highlighted, utilizing a combination of participatory mapping and ranking cards. Specifically themes on environmental issues, opportunities for action, comprehension of social/environmental linkages, and the ability to think about the ‘future’ in decision making were assessed. Additionally, perceptions of who makes decisions about what activities are conducted at the resort for environmental management were also sought. Resort management and all personnel involved at the resort participated in focus groups and one to one interviews. The environmental management approaches of both resorts in the resort were also
discussed as part of the assessment.

Ideally, an assessment of perceptions should entail a thorough and comprehensive exploration and analysis of all stakeholder perceptions, issues and options. The RAP approach seeks to take a snapshot of perceptions – this ‘rapid’ approach greatly reduces time requirements while still providing useful information on stakeholder perceptions. Consequently, this report presents a snap shot: result of a rapid assessment within the scope of time frame and the availability of the staff at both resorts. This snap shot is still usable in satisfying the objective. The objective of the RAP was to provide an analysis of the main factors and variables in the staff perceptions which must be taken into consideration in the design and development of forthcoming innovative tools to be designed for the resort.

Research Methodology

The RAP was carried out in Soneva Fushi resort on 15-21 April 2007 with a total of 47 participants, 5 women and 42 men. In addition, 22 interviews were conducted with staff, 41% women and 59% men. The RAP was carried out at Soneva Gili resort on 8th July 2007 with a total of 34 participants, 30 men and 4 women. In addition, 13 interviews were conducted with staff, 92% men and 8% women.

Group size and make up are important considerations for collecting the RAP data. The focus groups included staff from the inner sphere and middle management. The participants were organized in mixed groupings to encourage active participation from those involved. Skilled facilitators were utilized to manage the flow of information from the groups.

Graph 1: Number of staff who participated in the RAP
BEACH EROSION
CHEMICAL SPRAY
REEF DAMAGE
SEPTIC TANKS
WASTE OIL (DISPOSING)
WASTE WATER DISPOSAL
SEWAGE TREATMENT
GARBAGE (INPROPER DISPOSAL)
PACKAGED ITEMS
FISHING
PEOPLE'S ARE A
ENERGY REDUCTION
From the assessment at both SFR/SGR the staff perceived that there were a number of environmental issues of concern, including waste management, beach erosion, water and energy management, awareness and practices of staff and pest control. However, the importance or impact of these issues varied between the two resorts.

WASTE MANAGEMENT

Waste management has been identified as a major environmental issue in both resorts. This includes waste management at the resort and waste that is dumped into the sea from the nearby communities and safari boats, gets collected on the reefs and the beaches of the resort. Waste management sites have been identified on SFR/SGR and although a lot of waste is generated in the resort, it is not perceived as being managed effectively. The hosts need to be trained to change their behaviour towards effective waste management; for example, to segregate waste and stop littering. Many staff believed that this was due to a lack of awareness about the impact / consequences of their actions on the environment, whilst others believed that staff were aware but did not care.

The focus groups in the upper management highlighted that waste management is a key environmental issue:

“’The majority of hosts are aware and trying to do their level best. Stopped smoking on main road; now only in special locations’. (One to one interview SGR)

“Waste management is a major problem; one key problem is the attitude of people. They do not give importance to segregate waste. Some do not feel it is so important because once it is taken to Thilafushi everything is mixed. Awareness should be raised and attempts should be made to change behavior of people. It affects tourism, rubbish floating in the lagoon and sea”. (Focus group upper management SFR)

‘Carelessness of people, have to remind constantly eg., not to throw rubbish. When staff get back from Male’ they bring a lot of rubbish into the island including things like plastic bags. People do understand, but they do not practice it or live it. Dumping rubbish in the sea is another major problem.
Communities in the surrounding islands and people in safari boats dump a lot of rubbish into the sea’ (one to one interview SGR).

In SFR most of the personnel in the inner sphere who were interviewed perceived that if people were empowered with knowledge on the consequences of poor waste management (for example throwing metal into the sea damages the corals) people would think critically about these issues before taking any action that might harm or damage the environment. In a one-on-one interview one of the hosts identified the following:

“The resorts throw more waste into the sea than the communities nearby. Awareness programs have been conducted, but there is little impact of this on people’s behaviour. It is very difficult to change behaviour / habits; for instance when we went to do the session in the Champa hall, there was a lot of rubbish thrown on the floor. These sorts of habits need to change...” (Staff from SFR)

‘The most crucial threat to the environment is people. People harm the environment by actions like throwing waste such as plastic bags and cans into the sea. There are rules for the hosts to follow, but people do not follow them and the management does not ensure that they are followed’ (One to one interview SGR).

‘Everything is related to proper awareness. In Soneva Gilli usage of glass bottles was implemented but people do not follow, some are not aware’. (Focus group SGR)

‘The resort is 90% environment friendly but the people are not practicing good ways due to bad habits’. (One to one interview SGR)

Notably staff members from SGR pointed out that it is important for staff members to be environmentally aware from a business perspective as well, as the majority of staff members are in contact with guests who have chosen the destination largely based on its aesthetic beauty and environmentally friendly credentials. One staff member noted that the behaviour of the guests also offers opportunities for learning.

‘Most [guests] are environmentally aware- they choose the destination based on eco-friendly resort’. (one to one interview SGR)

‘Sometimes guests complain- giving attention to environment- I saw several guests collecting bottles from lagoons. We also learn from guests behaviour’. (One to one interview SGR)

Positive environmental initiatives towards effective waste management undertaken by the resort as perceived by the participants.

Both resorts are very dedicated to conducting positive environment related initiatives. Glass bottles are used in the rooms to refill and store water. At SFR approximately 1000 PET bottles are used by the hosts per month, so management is trying to reduce this number by encouraging them to use bigger bottles of 20 litres. At SGR plastic bags have been banned and staff members have each been given 2 glass bottles that can be refilled, so as to avoid purchasing plastic water bottles. Bins are placed in staff complexes to encourage the segregation of waste and signs are located around the resort about disposing of cigarette butts. Soneva clean-up activities are regularly conducted by staff on the island and the lagoon. Used alkaline batteries are collected in separate bags in rooms and sent to Sweden.

Reduce

• Most of the kitchen waste is thrown in the sea. Composting is done with some vegetable scraps.

• Reduce imported produce from overseas to reduce cost and packaging. Herbs and organic food are grown in the gardens and the Resort is looking in to the possibility purchasing locally available products.

• The Resort is looking into the possibility of worm composting to reduce the kitchen waste thrown into the sea.

• The Resort is considering minimising its impact on nature by reducing the amount of construction on the island.

• Segregation of waste at resort level is being conducted (though needs some improvement).

• 90% of all photocopying done is on one side used paper. However, each day a fresh menu is developed and distributed, this is not very good practice

• Reducing the quantity of plastic bottles used should be a goal, beach cleaning should be practiced.

• Instead of buying in smaller quantities, many products are bought in bulk.

• There is a restriction on buying paper/wooden products.
Reuse

- Reuse plastic bags/cups and containers to plant seedlings.
- Reuse of various materials that would otherwise be thrown away as waste.
- Recycle used wood for construction and reuse palm stems and fronds to produce innovative items such as waste bins and decorative items. Reuse branches and the bark of trees to make furniture.
- Leaves are not cleared and seedlings left to grow again which contributes to “future forest” program.
- The Resort makes an effort to reuse paper, use dead trees to make various things, conduct re-planting programs and use the island’s coconuts for cooking.
- Kitchen oil is used to light lamps at the side of the paths.
- Mulch is made from palm fronds and trunks and is used in the gardens.
- The Resort is to start using rechargeable batteries on the island.

↑ Composting organic waste at SFR

↑ Reusing waste materials

↑ Plastic bottles are reused as pots to grow plants
Perceptions of the staff on opportunities to improve waste management:

- Lack of awareness among staff and communities on effective waste management.
- Students, teachers and parents in the respective communities could visit the resort and observe the waste management practices.
- Construction of waste management centres in the local communities is needed.
- Soneva should encourage composting and cultivation of fruits and vegetables in the neighbouring communities.
- The construction of a more effective mechanism to dispose of waste is needed on the resort.
- Biodegradable content needs to be recycled through composting.
- Collection of appropriate wastes for treatment overseas should be considered.
- The resort should provide each staff with a glass bottle to refill and store water in order to minimise on waste (currently implemented at SGR).
- Re-use what ever is possible.
- Durable plastic could be used in preference so that it could be reused and washed repeatedly.
- Negotiations should be conducted with carriers like LTU to carry back the waste.
- Waste management is not effective if at the managerial level people do not practice or are not strict about implementing good practices. Firmer resort rules and policies in regard to detrimental environmental activities should be considered. A penalty system (such as fines) should be looked into.
- Avoid use of plastics where possible.
- Avoid non-biodegradable products.
- Reuse paper as much as possible by reusing envelopes and sending emails to communicate.
- There are limitations as to what we can do as a resort. Maybe all the resorts together with some assistance from the government could act together to deal with electronic waste.
- Provide more bins around the island.

WATER MANAGEMENT

Desalinated water is generated on both resort islands and used throughout the resort except for flushing of toilets. To do this a process of reverse osmosis is used to turn sea water into drinking water. In the process chemicals and large quantities of energy are used to generate the water. Participants in the RAP were concerned about the usage of chemicals, the release of emissions into the air (and its effect on global warming and air quality generally) and the consumption of energy. The taste of the desalinated water was also commented on during a number of one-to-one interviews:

“The drinking water provided to the staff does not taste good; this is why they buy bottled water”. (Staff from SFR in a one to one interview )

From the interviews and the focus group discussions the staff have identified that some attempts have been made to save water. Water-conserving taps have been installed in the resort and swimming pools use salt water in an attempt to save water. Strong chemicals are not used for house cleaning; environmentally friendly chemicals are used instead. Linen sheets are not changed daily unless requested by the guests, and even then only the bottom sheet is taken for washing and is replaced by the top one.

Waste water

A major issue that was discussed by SFR staff was that the waste water should be treated for reuse in the resort. Diesel is poured into the septic tanks to kill the smell and this is not perceived as good practice. A suggestion was put forth by the focus groups that a sewage treatment plant should be used in the resort so that a proper sewage system will be in place and the waste water could be reused. In the one-on-one interviews and the focus groups the staff expressed the view that the ground water on the island is polluted mainly because of the septic tanks and not having a proper sewer system in place, whereby the waste can be treated. Notably one compost toilet has been installed in the garden area as an example of recycling human waste without the input of water.

At SGR there is an operational sewage treatment plant. Treated water from this plant is reused in the vegetable gardens at the resort. During the focus group discussions, one group expressed a concern about the smell of the treated water used in the gardens, and the safety/health issues associated
with walking barefoot in the gardens where treated waste water is irrigated. Nonetheless a number of participants commented that this sort of large scale infrastructure was an important part of their system for dealing with environmental issues on the island.

**BEACH EROSION**

At both resorts beach erosion was perceived as a serious issue; however it was ranked as the number one issue at SGR. This island is far smaller than SFR and is located in between 2 channels with very strong currents and winds that exacerbate the problem. The participants perceived that the island is in fact getting smaller, that ongoing sand dredging is damaging the seabed/sea life and the operation of the sand dredge releases smoke and chemicals which ‘contribute to global warming and add up to destroying of tourism and the beauty of the island’.

‘The island is shrinking. Trees are dying because of saltwater intrusion. We are pumping sand to combat erosion’. (One to one interview SGR)

‘It is endless, if people keep on digging the lagoon one day there will not be a lagoon’ (focus groups SGR)

‘Beach erosion is the major threat. A large part of the island is reclaimed land. I think beach erosion is a result of reclaiming the land’ (one to one interview SGR).

At SGR efforts have been made to plant trees to minimise erosion (eg. Sahara beach) and a sand dredge operates to combat the problem. However it was generally perceived as an ongoing issue that required management, and that other solutions (e.g. sea walls/defences) were not necessarily appropriate to the resort.

‘ Tried a lot of things eg. protecting beach, sand pumping/sand bags etc. Still no long lasting solution. Can’t get rocks/sea wall because we need to keep it natural’ (one to one interview SGR).
ENERGY CONSUMPTION

Both resorts are currently committed to becoming ‘zero carbon emission’ islands by 2010. Currently however fossil fuels are primarily utilised for generating power. SRF consumes 4000 litres of fuel per day at a cost of 9 MRF per litre, so it is a major cost for the resorts. There is a perception that energy is wasted, especially the inappropriate use of air conditioners is considered a significant issue. Staff recognised that measures have been taken in regards to saving energy via the design of buildings, through the circulating of hot water to staff rooms (SGR) and the circulation of water from the sea and cool air through insulated pipes (SFR). Natural ventilation is used in a newly built staff complex. CFC free units are used in bars and in the villas. However, the staff perceived that it would be good to look at other alternative sources of energy such as solar and wind energy.

In general the staff understood that the generation of energy releases gases to the atmosphere and that this contributes to global warming. The staff who were interviewed felt that awareness of environmental issues needs be raised in order for behavioural changes to occur. There is signage in each staff members room about turning off the air-conditioner or lights, however it was noted that not all staff follow these rules.

‘Few know, but don’t follow eg. not switching off AC which increases fuel consumption’ (one to one interview SGR)

Many staff mentioned during the interviews that they had watched the movie ‘An Inconvenient Truth’. This initiative seems to have helped to increase awareness about this global environmental issue.

‘We have 1 CD- Inconvenient Truth- target 100% staff to watch the CD. Such presentations work as an eye opener’. (one to one interview SGR)

It was acknowledged during the RAP that financial constraints exist with regard to exploring alternative energy technologies. Despite this, both resorts are looking into the possibility of using alternative energy sources on the basis of its benefits to the environment and local ecosystems.

‘Looking at things like alternative sources of energy, eg. using deep sea cooling instead of A/C, using air dry method before tumble dry in the laundry’. (one to one interview SGR)

Each resort is allowed to use 20% of the island for infrastructure according to Maldivian regulations; however SFR has opted to forgo a possible additional 40 villas to retain more of the island’s natural vegetation. Preserving the natural ecosystems has been a priority for all the participants involved in the RAP and SFR was designed with a buffer zone of trees between the shore-line and the rooms for this purpose. In general terms both resorts maintain dense vegetation around the resort, especially SFR. The importance of trees for shade, beauty and the ecosystem is clearly valued at both resorts. Notably, both focus groups mentioned the issue of cutting down trees and deforestation more generally.

Perceptions of staff on the above environmental problems:

- Energy is used excessively, in fact it is wasteful. Maybe people could be fined for leaving the air-conditioners on in rooms when not occupied. Everyone should start minimising air-conditioner usage.
- People do not act responsibly in reducing energy consumption and would like cooler rooms.
- Excessive energy consumption patterns are practised by the staff and guests alike.
- Solar panels should be installed to utilize solar power.

Perceptions of the staff on opportunities to improve energy management:

- Heat recovery will be conducted and reused in the laundry and kitchen.
- Heat recovery from the boilers and circulated to staff rooms (SGR)
- Feasibility is underway to set up a deep sea cooling system to save energy.
- Feasibility is underway to utilise solar power to some extent and biodiesel from coconut oil.
- New technologies have been used to reduce energy consumption.
- Large villas have central (main) switches to save energy.
- Tree-planting programs have been conducted at the resorts and neighbouring communities.
• Fruit trees are donated to the local communities.
• Products such as fruits and vegetables are purchased from nearby islands to assist the communities to generate an income.
• Vegetation is very dense in Soneva Fushi.
• Nature trips are conducted.
• Putting lighting on timers
• Using plantation timbers

Pest Control
A number of other issues were raised during the assessments at both resorts. Notably pest control was identified as an environmental issue at both resorts. At SFR there is an ongoing issue with Rhinoceros beetle which is impacting the growth of the coconut trees. On SGR staff reported that rats, beetles, snakes, centipedes and millipedes were an issue, as well as ‘garden pests’. One of the focus groups noted that food waste attracted the pests and created a heath issue. Mosquito breeding was also noted as a problem on both islands, for which regular fogging with chemicals is done. However pest control with chemicals was highlighted as an environmental issue due to its potential to pollute groundwater and seawater.

Biodiversity
In using environmental resources like fishing, sustainable practices should be considered. Soneva already has a policy in place not to undertake night fishing activities and fishing is also banned in the house reef because this would damage coral and fish populations living in the house reef. The resort does not have a sea wall or breakwater walls and there is little impact on the reef as there are no major structures constructed in the water. One of the staff expressed the issue that turtle eggs have been harvested despite being a banned practice and punitive measures have been taken against the responsible staff member.

Awareness
The need to develop environmental awareness and understanding among the staff, guests and island communities alike was a recurrent topic in the one-to-one interviews. Notably both resorts have pro-actively conducted regular training sessions (e.g. green module) and ongoing campaigns to promote awareness and good practices, within the resorts and neighbouring communities. Most of these interviewees have expressed that what is most needed, but difficult to facilitate, is behaviour change among the target groups.

"Initiatives are difficult to sustain or to implement. There are cultural barriers. Behaviour change takes time, people get used to habits over years; it is difficult to change. It will be good to also learn from international experiences like running out of fish stock". (one to one interview SFR)

However, a long term staff member from SGR acknowledged that such behaviour change takes time.

‘When I first came here there was no interest, no one was talking about it- 2 nights ago a colleague told me that he is not throwing cigarettes on the boat to Male’. Also a guy from housekeeping tells me things too. Four years ago there was none of this. So I feel positive’. (one to one interview SGR)

Both resorts invite school students to their resorts to promote environmental awareness. Each year a nature trip is organised by the SFR in conjunction with a local NGO Ecocare. It is one of the most popular events as it brings students from Male’ in touch with the environment.
### RANKING OF ENVIRONMENTAL ISSUES

#### Table 1: Ranking of the issues by senior management in the focus group in SFR

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Beach Erosion</td>
<td>Waste water treatment and fossil fuel consumption</td>
<td>Peoples mind set</td>
</tr>
<tr>
<td>2</td>
<td>Chemical spray</td>
<td>Garbage disposal</td>
<td>Garbage treatment</td>
</tr>
<tr>
<td>3</td>
<td>Reef Damage</td>
<td>Lack of awareness</td>
<td>Sewage treatment and recycling</td>
</tr>
<tr>
<td>4</td>
<td>Septic tank</td>
<td>Use of pesticides</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Waste Oil</td>
<td>Beach and reef degradation</td>
<td></td>
</tr>
</tbody>
</table>

#### Table 2: Ranking of the issues by the middle management in the focus group in SFR

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Waste management</td>
<td>Disposal of Garbage</td>
<td>Waste management</td>
</tr>
<tr>
<td>2</td>
<td>Water pollution</td>
<td>Damage to coral</td>
<td>Energy consumption</td>
</tr>
<tr>
<td>3</td>
<td>Energy Consumption</td>
<td>Preserve natural habitats</td>
<td>Water pollution</td>
</tr>
<tr>
<td>4</td>
<td>Disturbing natural habitats</td>
<td>Breeding of pests</td>
<td>Land pollution</td>
</tr>
<tr>
<td>5</td>
<td>Land pollution</td>
<td>Turtle hunting and collecting eggs</td>
<td>Beach erosion</td>
</tr>
</tbody>
</table>

#### Table 3: Ranking of the issues by focus group 1 in SGR

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Waste management</td>
<td>Beach Erosion</td>
<td>Beach Erosion</td>
</tr>
<tr>
<td>2</td>
<td>Beach Erosion</td>
<td>Waste management</td>
<td>Water pollution</td>
</tr>
<tr>
<td>3</td>
<td>Energy consumption</td>
<td>Water consumption</td>
<td>Pest Management</td>
</tr>
<tr>
<td>4</td>
<td>Water consumption</td>
<td>Energy consumption</td>
<td>Energy consumption</td>
</tr>
<tr>
<td>5</td>
<td>Sea Grass</td>
<td>Water pollution</td>
<td>Waste management</td>
</tr>
</tbody>
</table>

#### Table 4: Ranking of the issues by focus group 2 in SGR

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Awareness of hosts</td>
<td>Global warming</td>
<td>Beach Erosion</td>
</tr>
<tr>
<td>2</td>
<td>Beach Erosion</td>
<td>Deforestation</td>
<td>Pollution</td>
</tr>
<tr>
<td>3</td>
<td>Waste Management</td>
<td>Waste Management</td>
<td>Waste Management</td>
</tr>
<tr>
<td>4</td>
<td>Noise pollution</td>
<td>Population growth</td>
<td>Anchoring</td>
</tr>
<tr>
<td>5</td>
<td>Population growth</td>
<td>Public Awareness</td>
<td>Carbon emissions/global warming</td>
</tr>
</tbody>
</table>

### ENVIRONMENTAL DISCOURSE

A tool to measure environmental discourse was used in order to give some basis of the participant’s views on the environment. The participant responses are highlighted below and reveal that many participants saw the term environment as a ‘resource’ whilst others saw the environment more holistically as ‘nature’ or the ‘whole planet’. Notably there are some differences between SGR and SFR. At SGR more than half of the participants saw the environment from a global level, whilst at SFR the majority of participants saw the environment as a resource or as nature.
Table 5: Environmental Discourse

<table>
<thead>
<tr>
<th>Environmental Discourse</th>
<th>Comments SGR</th>
<th>Comments SFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I see the environment as nature</td>
<td>‘This is where I live. We can contribute as an individual and make it a global issue’.</td>
<td>Environment is everything around us. We see the nature as the environment. Where there is nature means there is environment.</td>
</tr>
<tr>
<td>2. I see the environment as a resource</td>
<td>‘We get resources from the environment. If we use them properly we can survive and be healthy.’</td>
<td>I see the environment as a resource. It is to be managed so that it can provide us with food, materials and medicines.</td>
</tr>
<tr>
<td>3. I see the environment as a problem which has to be solved</td>
<td>‘There is pollution everywhere. In order to minimize it we need to work together.’</td>
<td>I see the environment as a problem, which has to be solved, we need to fix up pollution, and over harvesting our fish and forests.</td>
</tr>
<tr>
<td>4. I see the environment as a place to live</td>
<td>‘Trees, environment and gardens are needed to be healthy.’</td>
<td>I see the environment as a place to live, to know and learn about, to plan for and take care of. The village and garden is my environment.</td>
</tr>
<tr>
<td>5. I see the environment as the whole planet</td>
<td>‘Only home we have, everything is connected- everything is of equal importance- “think globally act locally”’.</td>
<td>I see the environment as the whole planet, where everything is connected and people are part of this system (water, air, plants, animals and people). We must all live together in the environment.</td>
</tr>
<tr>
<td>6. I see the environment as a community project.</td>
<td>‘We believe that it takes a community effort. If 1 person is good and the rest keep damaging then it won’t work. All of us have to do it together to bring it back again. All of us need to work together to rebuild it’.</td>
<td>Everyone should work together to make an impact</td>
</tr>
</tbody>
</table>
ENVIRONMENTAL DISCOURSE AT SONEVA FUSHI RESORT

- Environment as nature: 7%
- Environment as a resource: 21%
- Environment as a problem: 36%
- Environment as a place to live: 8%
- Environment as a whole planet: 18%
- Environment as a community project: 5%

ENVIRONMENTAL DISCOURSE AT SONEVA GILI RESORT

- Environment as nature: 11%
- Environment as a resource: 21%
- Environment as a problem: 18%
- Environment as a place to live: 30%
- Environment as a whole planet: 7%
- Environment as a community project: 4%

WHO IS THE MOST ACTIVE ON ENVIRONMENTAL ISSUES AT SONEVA GILI?

- HR department: 31%
- Guests Relations Manager: 38%
- Other individuals: 8%
- Environment club/Sea Club/committee: 19%
- All departments: 4%

RANKING OF ENVIRONMENTAL ISSUES AT SONEVA FUSHI RESORT

- Lack of awareness/poor habits: 32%
- Waste management: 36%
- Beach erosion: 6%
- Financial constraints to implement major projects: 2%
- Import of products: 2%
- Fishing excessively, without any limits: 1%
- No sewerage treatment system in place: 2%
- Use of chemical sprays to control pests: 16%

RANKING OF ENVIRONMENTAL ISSUES AT SONEVA GILI RESORT

- Waste management: 25%
- Beach erosion: 22%
- Lack of awareness/carelessness: 7%
- Control pests: 14%
- Energy consumption/global warming: 6%
- Water usage: 5%
- Cutting down trees/deforestation: 3%
- Overpopulation: 2%
- Noise pollution: 13%
- Water pollution/anchoring/sea grass: 2%
At SGR and SFR environmental issues are dealt with in a number of ways:

- Policies come from the resort owners/Hub office (eg. no night fishing or jet skis, target of zero carbon emissions);
- With infrastructure (e.g. incinerator, sewage treatment plant, heat recovery system);
- Through eco-design (e.g. building design, guest room design);
- Training (e.g. green module as part of induction);
- Job descriptions and performance appraisal (environment sections included in Job Description and assessed);
- Sign boards around the resorts and staff rooms (e.g. energy saving or cigarette disposal)
- Environmental committee/Environment Club (e.g. organizing events and campaigns);

It appears that at the resort, environmental issues fall under the purview of the Human Resource department; however, environmental issues are monitored and tracked at regular management meetings. In terms of who is most active in the environmental field, the guest’s relation manager and the HR department are perceived to be the most active at SGR. At SFR the HR department was recognized as being active on these issues, although all departments are perceived to be contributing. At SGR a number of people during the one to one interviews acknowledged that a full time person was needed to be responsible for environmental issues. It is understood that in recognition of the importance of environmental and social issues, SGR will appoint a full time person who will oversee these areas. At SFR the marine biologist and permaculturist both take a lead role in environmental issues, although neither appears to be responsible for environmental issues full time.
Opportunities

During the one to one interviews many participants were positive that there were opportunities to solve environmental problems. A number of these opportunities are listed below:

<table>
<thead>
<tr>
<th>Opportunities – SGR</th>
<th>Opportunities- SFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resources with practical training and skills</td>
<td>Improve waste management in Soneva and on the islands. E.g. encourage composting</td>
</tr>
<tr>
<td>Install environmental friendly technology (e.g. glass/can crusher and wood chipper) and proper OH&amp;S equipment to operate</td>
<td>Establish better links with communities and share best practices with communities</td>
</tr>
<tr>
<td>Awareness materials for resort and nearby islands and schools</td>
<td>Increase agricultural farming and provide incentives to communities</td>
</tr>
<tr>
<td>System of supervision eg. segregation of waste</td>
<td>Install environmentally friendly technology</td>
</tr>
<tr>
<td>Employ person responsible for environmental issues full time</td>
<td>Encourage guests to use local products, plant useful trees (fruit) Encourage and revive poultry farming</td>
</tr>
<tr>
<td></td>
<td>Train Soneva staff to disseminate information and raise awareness of management team</td>
</tr>
<tr>
<td></td>
<td>Find a way to manage electronic waste nationally</td>
</tr>
<tr>
<td></td>
<td>Funds allocated for eco-friendly projects</td>
</tr>
<tr>
<td></td>
<td>Use re-chargeable batteries</td>
</tr>
<tr>
<td></td>
<td>Find environmentally friendly alternatives to chemical sprays</td>
</tr>
<tr>
<td></td>
<td>Introduce natural predators</td>
</tr>
<tr>
<td></td>
<td>Enforce laws or punishment on those who cause damage (e.g. kill turtle)</td>
</tr>
</tbody>
</table>

Difficulties

However during the one to one interviews a number of difficulties emerged in how to address environmental issues at the resorts. These included:

- Logistical difficulties (sourcing, procuring and importing products to the Maldives)
- Mixed workforce (need to translate and tailor training materials for a number of languages)
- Resort is affected by practices of neighboring islands and safari boats
- No formal environmental management system in place to guide and provide direction
- No system in place to monitor and enforce rules/procedures (e.g. smoking or segregating waste)
- Lack of some infrastructure (e.g. glass crusher)
- Lack of expertise at the resort
- Practices in other places (e.g. Male’ or Thilafushi) can undermine awareness efforts on the resorts (e.g. buying plastic bottles or bags)
KEY FINDINGS

Key Finding 1:
Soneva Fushi and Soneva Gili resorts are both pro-actively addressing environmental issues and assisting island communities.
- Soneva Fushi conducts award winning nature trips annually.
- The resorts assist communities to address environmental issues through their social responsibility funds.
- Special days are marked with involvement of school children from the respective communities.

Key Finding 2:
Resort staff are most concerned about:
- waste management,
- beach erosion,
- water and energy management,
- awareness and practices of staff; and
- pest control.
NB: The importance of these issues varied between the resorts.

Key Finding 3:
Resort staff perceive that their habits should be changed to be more environmentally friendly:
- Attitudes toward the environment are very positive among individuals and groups that were interviewed.
- Constraints exist to changing behaviour or implementing new systems.

Key Finding 4:
Staff showed positive interest in alternatives for energy and waste management:
- There was strong interest in acquiring the skills and knowledge needed to experiment with alternative energy sources.

Key Finding 5:
Training was identified as needing to be more consistent for all levels:
- The training department lacks the technical knowledge of alternatives to deal with environmental issues.
- Indigenous knowledge exists within the staff at both resorts but needs to be fostered and used to address environmental issues.

Key Finding 6:
Staff considered it important to try to deal with environmental issues themselves, and try to integrate the issues into their own training programs:
- There is good awareness and interest but a new approach or modality may be needed to change existing behaviours.
As a small island developing state the Maldives has a history of challenging environmental management issues and many of these have gained increased attention in the after-math of the tsunami. Major environmental management issues face both resorts and inhabited islands alike, include: climate change and sea level rise, scarcity and pollution of freshwater resources, waste management, and biodiversity conservation.

The RAP highlights significant initiatives that both resorts are actively taking in promotion of environmental management for the resort and with nearby communities. These efforts are to be applauded, and set a valuable model for other resorts in the Maldives. Although progress has been made, findings from the RAP highlight many areas of environmental management that require continued and sustained effort, especially in terms of waste, water, energy and beach erosion. Whilst the resort has taken the initiative and employed consultants and key staff with environmental backgrounds, it will be essential to mobilise the entire workforce to effectively address environmental management on the islands.

The RAP has also shown that whilst the staff in the resort have a basic understanding of the issues, they perceive that they lack the power and technical knowledge to promote behaviour change. The focus group and the one-on-one interviews highlighted that education is perceived as a key tool for improved environmental management at the resort. Although some issues have already been highlighted in training sessions conducted by the training department, the staff felt very strongly that the current approach used in conveying environmental messages is not adequate to change behaviour. The staff strongly expressed that more practical activities should be incorporated into the pedagogy of the training sessions if the people involved are to take action on the critical environmental issues faced by the resort.

From past experience however it is clear that environmental education alone is unlikely to instill all the values needed to sustain the environment – if that was the case, we would already be much further down the road towards
sustainable development. However it is generally recognized that environmental education is a central pillar of a broader environmental management strategy. For both resorts it will be critical to build upon past initiatives and lessons learnt, as well as utilising the key findings of the RAP to develop a strategic approach to environmental management. Such an approach would be centered around an environmental management system consisting of policies, infrastructure (‘hardware’) and education and awareness programs with staff and guests (“software”) to bring about improved environmental management. Organisations such as Live & Learn can support both resorts in the latter aspect, in the development of an environmental education and awareness program. The following sections are offered as considerations for the development of appropriate tools for such a program.

Underlying Principles for Innovative Environmental Education Tools and Methodologies

One of the most basic principles for change is motivation. This RAP has shown that the staff have a good environmental awareness and an interest in positive change. This needs to be developed and nurtured to motivate individual and organisational change. Innovative approaches and the right tools and methodologies can help this to happen. To find the ‘right’ tools it is essential to develop, test and refine the tools. The development of the tools may need to be tailored to the different departments at the resorts and tested accordingly. Finding the right tools will take time, patience and flexibility as shown in the diagram below:

Innovative approaches that respect traditional, cultural and religious knowledge make it easier for participants to cope with perceived risks related to behaviour change. Opportunities exist for utilising traditional dance and theatre. It is important that such approaches be seen in addition to effective face-to-face education approaches. Having fresh and innovative tools is not enough to ensure that participants will become involved in activities. It is necessary to identify the drivers behind the success so that people engage in activities that target the participants concerns in a meaningful way.

The focus of past environmental education approaches in the Maldives has been awareness and knowledge based. Placing greater emphasis on action oriented environmental education is critical to success. Awareness alone does not change behaviour. The promotion of best practices and learning by doing will provide innovative tools for behaviour change, which is the ultimate goal.

Traditional teaching styles need to be adapted in the training sessions to include action based activities where the hosts critically reflect on their responsibility towards environmental issues in their
own environment. Developing workable solutions to environmental problems will require choices and decisions based on a critical examination of information and opinions. The case studies and examples used in the training sessions should be relevant to the learners, by beginning from their experience. Positive examples of environmental management need to be highlighted and promoted. In many cases the resort is utilising environmental management approaches that may benefit the neighbouring communities. As the resort continues to increase environmental management practices these lessons need to be shared with the communities and other resorts.

Research undertaken in the Maldives indicates that:

- There needs to be a shift in all the training forums, towards a more inclusive approach in which people can be involved in collecting and analysing information, problem solving, cooperative learning settings, simulations, debates, and critical reporting sessions. This will empower the participants to make their own decisions.

- Providing experiences in real-life situations or situations that simulate real-life situations increases the probability that skills will be used. Providing modelling of the skills, ample opportunities for practice, and feedback on the effectiveness of the participants thinking are also important considerations.

The ability to think critically is also essential to environmental education initiatives. Critical thinking requires people to ask questions that challenge their thinking. Some examples are: Who makes decisions affecting the environment? Why are they made? Who benefits from these decisions? Are the long-term consequences considered? Which decisions promote sustainable development?

Critical thinking is asking questions, challenging prior knowledge and learning, and challenging assumptions of our beliefs and knowledge. Critical thinking is about not taking anything at face value; it is about uncovering assumptions and finding underlying meanings.

In order for Environmental Education to reach its full potential the staff need to reflect on his or her own values and attitudes towards the environment. This challenges people to examine how their values influence the opinions that they form and to ask themselves where they stand on an issue and how they have formed their view.
Considerations for Innovative Environmental Education Tools

1. Encourage participation of the staff, guests and communities in monitoring and promoting environmental management and positive behaviour.

2. Encourage people to critically think about the future and encourage the development of practical solutions to everyday problems.

3. Develop culturally appropriate approaches to environmental education. Link appropriate knowledge to practical actions for positive change.

4. Lead by example: address environmental needs and concerns identified by the staff. Share the lessons learned so as to encourage others to act on environmental issues.

5. Initiate key activities related to staff perceptions to be implemented within budget in a short period. Start the momentum toward positive changes.

6. Link with and expand on existing (Government & Non-government) environmental programs & initiatives. Do not replicate projects/trainings that already exist: assess, adapt and act. Learn from existing models to adapt and replicate across other resorts and Island communities.

7. Highlight the positives – environmental management (carbon neutral) and appropriate technology (deep water heat exchange) case studies to promote positive actions and encourage other resorts and/or communities to become more sustainable.

8. Actively involve the training departments and/or other existing community organisations in the respective communities. There are pathways for the training department and the community to sustainably implement the projects in the future.

9. Try to find and then promote the positives in otherwise negative situations – the need to import materials could benefit from environmental and/or fair trade procurement policies.

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RECOMMENDATIONS

Effective environmental management requires us to reflect and build on existing and past initiatives. The RAP provides a broad benchmark from, which to develop a strategic approach to environmental management. Such an approach would be centered around an environmental management system, consisting of policies, infrastructure (‘hardware’) and education and awareness programs with staff and guests (‘software’) to bring about improved environmental management. The approach itself is just another document if it is not acted on. As such the real strategy is in gaining the participation of the resort staff and communities.

With specific regard to the environmental education and awareness program, and how to gain increased action, the following recommendations are offered:

- Develop an environmental awareness and mobilization program for 2-3 years to guide the overall implementation of activities and initiatives;
• Focus the program on relevant local needs and builds upon existing skills, knowledge and motivations to change behavior;

• Cultivate in-house expertise in participative facilitation techniques, especially in the training department to raise awareness and develop necessary skills to catalyze behavior change;

• Promote individual and participants’ responsibilities to act in an eco friendly manner and participate actively in environmental initiatives;

• Ensure that there are always one or two clear messages: efforts that are spread too thinly or vaguely over a range of issues may fail. This is especially of concern for short-term initiatives;

• Starting with the learner: focus on issues of most interest and that have ‘do-able’ activities, as this will serve to increase motivation and empower people to consider acting on more difficult tasks;

• In the development of appropriate tools, critical thinking needs to become a key ingredient in all Environmental Education activities;

• Combine education with action-based learning, investigating local issues (such as waste management) in order to capitalize on local participants’ willingness and skills to enable environmental change;

• Environmental Education tools and activities need to connect to everyday activities that are primarily focused on real life situations.

• Lead by example through the development of best practice environmental activities among the respective participants.

• Participation in environmental activities should not be rushed. It is critical that people have a strong sense of ownership of the activities, and then the participation process will lead to real results that are sustainable.
This RAP approach is an effort to better understand the local context and particularly the perceptions of the local audience on environmental issues, in this case at SFR and SGR. It is hoped that the information in this report can provide both resorts with an opportunity and guidance as to how to consolidate and strengthen its current environmental initiatives. However, our environment is an interlinked system. The RAPs show how environmental management practices on the resorts and communities impact each other. Resorts are affected by environmental management practices on nearby inhabited islands and vice versa. Therefore, improving environmental management on the resorts will only address some of the challenges.

Advancing sustainable development is a long-term commitment and can only be achieved through meaningful partnership and mutual learning. Live & Learn refer to this as the Sustainable Islands Approach (SIA). The sustainable island approach provides a people-centered ‘sustainable development’ approach to water, waste, disaster/climate change and biodiversity protection where (i) the community identifies a need and seeks improvement, (ii) includes critical and holistic thinking leading to well-informed decisions (iii) promotes ownership through clear definition of rights and responsibilities and (iv) there is strong emphasis on sustainability. Only by taking an integrated and holistic approach with nearby island communities can meaningful strategies and solutions be shaped for effective environmental management and ultimately sustainable development in the Maldives.

**Concluding remarks**

This RAP is designed to provide a basis for the development of Environmental Education tools and methodologies for environmental education. It is expected that the results will be translated into a design that is both effective and appropriate to the expectations and context of the beneficiaries. This is not an exhaustive survey; it is designed to give a useful overview that may be used in the development of pilot tools and activities. The focus of these pilot tools and activities is a better environment through environmental education. These tools and activities will be evaluated and this evaluation

This RAP has highlighted key areas where resort staff perceive that more can be done, but significantly the first steps have been taken.
will give us a greater understanding of the relevance and appropriateness of the tools and approaches for them.

The RAP shows very positive perceptions, specifically in the need to make behaviour changes for a better environment. Both resorts have already been active in promoting positive environmental management but importantly, senior management and general staff show a desire to do more: not just within the resort but also with neighbouring communities. There is a great opportunity to make the resorts positive environmental actions and interaction with the communities on issues of environment an example for others to learn from. This RAP has highlighted key areas where resort staff perceive that more can be done, but significantly the first steps have been taken.

REFERENCES

Bhandari & Abe (2000), ‘Environmental Education in the Asia-Pacific Region: Some problems and Prospects’


Live & Learn Environmental Education, Maldives (unpublished) “Rapid Assessment of Perceptions into Environmental Education in Maldivian Schools”.


Ministry of Tourism (2005) “Post-tsunami review” Final report by Deborrah Luhrman

Ministry of Tourism and Civil Aviation “Tourism Yearbook 2006”


↑ Cycling and walking around the resorts is encouraged
## ANNEX 1 - ISLAND PROFILE

<table>
<thead>
<tr>
<th>Island Profiles</th>
<th>Staff Population</th>
<th>Geographical information / Size</th>
<th>Guest Accommodation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soneva Fushi Resort</td>
<td>400 staff</td>
<td>1400 * 400 m</td>
<td>15 bungalows, 15 beach front villas, 14 soneva fushi villas and 10 soneva fushi villa suite</td>
</tr>
<tr>
<td>Soneva Gili Resort</td>
<td>300 staff</td>
<td>??????</td>
<td>44 water villa suites</td>
</tr>
</tbody>
</table>

Soneva Fushi Resort Map
Ideally, an assessment of perceptions should entail a thorough and comprehensive exploration and analysis of all stakeholder perceptions, issues and options. Practically, due largely to time constraints, this was not feasible. Consequently this research approach was designed to consider both financial and time constraints. The objective of the RAP was to provide an analysis of the main factors and variables in people’s perceptions that must be taken into consideration in the design and development of forthcoming environmental management tools and methodologies for viable and effective activities.

The RAP allows for the collection of social data that will be used to shape training material and learning resources. This is a qualitative report on perceptions and as such does not rely heavily on technical information and is not intended to serve as a technical report. The purpose of the report is primarily as background for the development of appropriate education tools for environmental management. Although technical knowledge may be strong, actions and behaviour are often more directly linked to perceptions. This social data collection is qualitative in nature. The focus of the research is on perceptions, as it is believed that people’s perceptions are more closely linked with their behaviours than specific technical knowledge they may have. This is an innovative field of inquiry that has developed as environmental education and has moved more toward behaviour change than to awareness raising.

The challenge with all research is to ensure objectivity. With qualitative data on people’s perceptions, one of the best ways of ensuring objectivity is by documenting the data. The RAP serves to document the collected data to allow other practitioners the opportunity to assist in seeing how and why our educational choices have been made. The RAP will therefore also serve as a tool for monitoring and evaluation as it also provides a documented overview of the researchers’ view prior to conducting activities, thus promoting critical reflection of the actions.

In order to obtain high quality data, three qualitative research tools were utilised: (i) Participatory Mapping/Ranking, (ii) Qualitative Interviewing, and (iii) Focus Group Discussions.
Research scope and design

Audience
The research target groups were:

Target Group 1: Managers in the resort
Tools: (i) resource mapping and ranking
(ii) focus group discussion
(iii) qualitative interviews

Target Group 2: Department Heads
Tools: (i) resource mapping and ranking
(ii) focus group discussion
(iii) qualitative interviews

Target Group 3: Middle Management and hosts from other levels at the resorts
Tools: (i) resource mapping and ranking
(ii) focus group discussion

Methodology
The underpinning methodology of the RAP is that it is participatory. The specifics of the participation method are the tools, often referred to as participatory tools. These are very dynamic and constantly changing with use of different facilitators in different areas and for different focuses. Participatory methods and tools are well documented in standard manuals. The tools chosen for this study were those that the facilitators were most comfortable with and believed would help collect data in a participatory manner. The following descriptions of these tools will not be definitive as, in reality, the specifics of the participatory tools change with each facilitator and in each situation.

Mapping
This tool can be used inside or outside. It is designed to get participants visually to represent an area as they see it. Mapping may not necessarily be about accuracy as it is based on perception. Mapping can serve to highlight group dynamics and perceptions as people discuss the way they see an area. Drawing on the map encourages people to think more about a particular issue and offers another way of expressing their views visually. This tool can be used to promote increased thought and discussion on the issues and to help gain several layers of information in a very useable format.

Where the situation allows, it can be useful to start with a walkthrough of the island – this is typically along a main road and helps people to become engaged in the activity at a more physical level.

This can be used prior to, or as a ground-truth of, the resource mapping exercise. This tool is used to gain physical information about an area, through participant observation and facilitator questioning. The concept aims to have participants consciously look at their physical environment with a key focus on such things as water, resources, problems, solutions etc.

Ranking
Ranking allows the participants to work through the issues and, as a group, prioritise them. This leads to group discussion about perceptions of importance. More issues may also arise as participants explain
the importance of different issues. Prior to ranking, the issues need to be highlighted by the group. Listing is a documentation tool that requires the participants to note what they see as the key issues. This tool can be linked to other tools and used to summarise issues for further discussion and/or ranking. It can be important in-group verification of the data collected before it is documented.

**Focus Groups**

Focus groups bring together selected representatives to discuss the topic of interest. The aim of the facilitators is to stimulate discussion and discourse amongst the participants using a list of questions as a guide. The group responses may be documented in writing or recorded onto a tape, later transcribed by research assistants. The size and make-up of each focus group should ensure that all participants can feel free to speak out and can be clearly heard.

For this study six to eight representatives were chosen for each focus group. The focus groups included women and men. It was important that these groups be separated to encourage active participation from those involved. The focus group make-up is very important – the participants need to represent all the key groups in the island.

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### FOCUS QUESTIONS

**Table 1: Themes and Key Research Questions Used in the Workshop**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Key Research Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions of the environment (environmental discourse)</td>
<td>How do the staff in the resort perceive the ‘environment’?</td>
</tr>
<tr>
<td><strong>Perceptions of environment, health and sanitation</strong></td>
<td>What are the issues?</td>
</tr>
<tr>
<td>• With water supply?</td>
<td>What is being learned?</td>
</tr>
<tr>
<td>• Waste management?</td>
<td>What are the opportunities?</td>
</tr>
<tr>
<td>• With ground water and drinking water pollution?</td>
<td>Teachers/community ability to solve problems related to the issues?</td>
</tr>
<tr>
<td>• Environmental health problems (including mosquitoes, diarrhea)?</td>
<td></td>
</tr>
<tr>
<td><strong>Perceptions of the environment and livelihoods</strong></td>
<td>What are the issues?</td>
</tr>
<tr>
<td>• With agriculture?</td>
<td>What is being learned?</td>
</tr>
<tr>
<td>• With fishing?</td>
<td>What are the opportunities?</td>
</tr>
<tr>
<td>• With tourism?</td>
<td>Teachers/community ability to solve problems related to the issues?</td>
</tr>
<tr>
<td>• Biodiversity and conservation</td>
<td></td>
</tr>
<tr>
<td><strong>Perceptions of the environment and culture and religion.</strong></td>
<td>What are the issues?</td>
</tr>
<tr>
<td>• Hygiene</td>
<td>What is being learned?</td>
</tr>
<tr>
<td>• Places of cultural significance (e.g. Utheemu Gaduvaru)?</td>
<td>What are the opportunities?</td>
</tr>
<tr>
<td>• Places of natural cultural value</td>
<td>Teachers/community ability to solve problems related to the issues?</td>
</tr>
<tr>
<td>• What are the needs and concerns associated with unique plants or animals?</td>
<td></td>
</tr>
<tr>
<td>• What are the needs and concerns associated with places valued for recreation or scenery?</td>
<td></td>
</tr>
<tr>
<td><strong>Perceptions of the management &amp; capacity</strong></td>
<td>What are the issues?</td>
</tr>
<tr>
<td>Who makes the decisions of what activities to be conducted in the resort regarding the environment?</td>
<td>What is being learned?</td>
</tr>
<tr>
<td>What would be an incentive to conduct more environmental education activities?</td>
<td>What are the opportunities?</td>
</tr>
</tbody>
</table>
**Staff – Interviews**

Semi-structured interviews were used with staff members from the resort. The interviews were conducted on an individual basis and targeted the different departments of the resort and senior managers. The focus of the interview was based on the participatory map. Each person was asked to look at the map and comment on the information presented. The following questions were used to stimulate the discussion:

1. What are the threats to the environment on this island?
2. Are hosts and guests aware of the harmful effects of their behaviour on the environment?
3. Are the hosts and the guests aware of the aesthetic values of their surrounding and local environment?
4. How are the environmental issues dealt with on the island?
5. What positive environmental initiatives has the resort been involved with?
6. What are some of the difficulties getting things done in the resort regarding the environment?
7. What resources do you need to become more effective in dealing with environmental activities at the resort level?
8. Who is the most active in dealing with/carrying out environmental related activities/projects?
9. What are some of the projects related to the environment carried out in the nearby communities?
10. What ways do you communicate about environmental issues at the resort level?
11. Who makes decisions about the environment on this island?
12. What are the opportunities to address/solve environment related issues/problems?
13. Are critical environmental issues of the hosts and guests reflected in the activities conducted at the resort level?
14. How would you like to see Live & Learn working with the resort?

**Limitations and Constraints**

**Bias** is one of the most significant limitations and constraints on any qualitative research. An important component of the research aimed at reducing bias was the use of feedback loops. The first feedback loop was between the local and international staff that conducted the research. The research utilised participatory approaches, which acknowledges that the local people have a better understanding of their situation than outsiders do. Participatory approaches can help to reduce bias from external researchers, but such approaches are new to the Maldives.

On a technical level, there may be linguistic limitations. Whenever information and/or data cross language barriers there is the chance it will be misinterpreted and the quality of the data reduced. The use of the feedback loops were also sought to highlight potential misinterpretation of the research.
To create innovative and enriching experiences in a sustainable environment