



قيناه اليئاة اليائدة العامانية Environment Society of Oman

# PROGRESS REPORT October 2007-December 2009

**Full Version** 



## ENVIRONMENT SOCIETY OF OMAN PROGRESS REPORT 2007-2009

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### **EXECUTIVE SUMMARY**

On the 24<sup>th</sup> of March 2009, the Environment Society of Oman entered its sixth year of existence. Also in March of that year, ESO became a member of the International Union for the Conservation of Nature, IUCN. In March 2008 and at the ESO's Annual general assembly a new board was elected to serve until March 2010.

This report gives a detailed account of the scope of work of ESO in the past two years. A summarised version of the report is also available for download on ESO's website. The ESO's projects are aligned with its objectives and overall strategy and agenda, including those related to scientific study, conservation and protected areas, ecotourism, awareness and education, cooperation with other organizations, and others. ESO's current involvement includes two broad themes: 1- Conservation and Research and 2- Awareness and Community Outreach, under which ESO has diversified projects, campaigns and researches. Research is conducted on marine species such as whales, dolphins, turtles and coral reefs and management of protected areas, in addition to native trees and plants and the sustainable harvesting of frankincense. Besides the research projects, ESO seeks to raise environmental awareness on different local and global environmental issues through initiatives like the paper and plastic segregation scheme, the anti-plastic bag campaign, climate change awareness raising, antilittering, over consumption of natural resources, etc.

In addition to its projects, ESO attempts to widen its network in the society through its PR strategy based on an annual ESO fundraising ball, press releases in the media and participation in local, regional and global conferences and meetings. A major achievement which crowned months of hard work was the launch of ESO's new website (<a href="www.eso.org.om">www.eso.org.om</a>) in December 2009 under the patronage of HE the Minister of Environment and Climate Affairs. In order to achieve its goals, ESO seeks partnership with the government authorities particularly the Ministry of Environment and Climate Affairs (MECA) and the Ministry of Education (MOE), international organisations, as well as the private sector and the civil society organisations in Oman and the region. As of the end of December 2009, ESO's membership base had widened to include 550 individual members and 23 corporate members.

Through its strategy and projects, ESO is planning to increase its membership base as well as its employees for a better protection of the Omani natural and human environments. We hope that through this report and the activities it details, you will appreciate the collective efforts invested in the work achieved so far.

### I- INTRODUCTION

The environment in Oman is of extreme importance to the people of the Sultanate, for the biodiversity it harbours and the ecological functions it supports. However, from a scientific perspective, Oman's environment is still relatively unexplored and has many conservation challenges. As a consequence, there is a constant need for additional resources, efforts and funding to help improve our awareness, understanding and ability to conserve the wealth of our natural heritage.

Since its inception in 2004, ESO has endeavoured to fulfill its mission to protect the natural and human environment of the Sultanate of Oman. And in the past two years, ESO has grown significantly and this growth is demonstrated through the widening of the membership base and the variety of projects which tackle several environmental issues. In addition to the projects and activities listed in the following pages, ESO started a new project funded by the State Department's Middle East Partnership Initiative (MEPI). Through this project, ESO works to empower women to identify local environmental problems and find mitigation measures which they share with their local government in order to affect decision making.

During the period covered by this report, ESO received grants from the Ford Foundation, US Fish and Wildlife Services, the Middle East Partnership Initiative (MEPI) and the US Environment Protection Agency (EPA). In an attempt to widen the collaboration network in the field of environmental protection, ESO also partnered with the private sector and received sponsorships from: Oman Liquefied Natural Gas (OLNG LLC), Petroleum Development Oman (PDO), Occidental Oman, Omran, Muriya, Renaissance Services, Bank Muscat, Bank Sohar and the National Bank of Oman (NBO). In addition, ESO is grateful to the individual donations received from:

- Sayyid Nasr Bin Badr Al Busaidi
- HE Mr. Klaus Geyer, the previous German Ambassador in Oman
- HE Mr. Anil Wadhwa, the Indian Ambassador in Oman,
- HE Ms. Annelies Boogaerdt, the late Dutch Ambassador in Oman
- A student from ABA school
- The Caledonian Society of Oman

In March 2009, ESO's application to the World Union for the Conservation of Nature (IUCN) was approved and as a result ESO became a member of IUCN. In Oman, ESO is member of the following committees:

- 1-The industrial advisory board of the International College of Engineering and Management
- 2-The Environment and Sport Committee of the Omani Olympic Committee
- 3-The National Committee on Monitoring and Reporting on Mammals Stranding under ROPME (Regional Organisation for the Protection of the Marine Environment)
- 4-The Committee on Plant Genetic Resources at the Ministry of Agriculture
- 5-The Steering Committee of Ras Al Jinz Turtle Research Centre (Chair)
- 6-The Advisory Board of the Indian Ocean Turtle Newsletter -IOTN

The trust in ESO's capabilities and professionalism has also been building up through the years. In April 2008, HE the Minister of Environment and Climate Affairs visited ESO office and met with the board members as a sign of endorsement of

ESO's role and paved the way for future collaboration between his ministry and the ESO. The Shaura Council consulted with ESO on two very important issues; one on the suggested use of coal as an alternative energy resource in Oman and the other one on the legal framework for the regulation of solid waste management in Oman.

In the following pages, we take you through ESO's projects and activities and provide an update on ESO's membership base.

### II- PROJECTS

### A- CONSERVATION

### 1-MARINE CONSERVATION PROJECTS

ESO's marine conservation programme currently involves three main elements including the on-going Whale and Dolphin Project, the Turtle Research and Conservation Project focusing on Masirah Island, Ras al Hadd and the Damaniyat Islands Nature Reserve (DINR), and the Protected Areas Project including the DINR, Ras al Hadd Turtle Reserve and the proposed Masirah Islands Protected Area. Within each of these elements there are numerous activities and areas of overlap, but for convenience, each one is called a 'project'. In addition to these main projects, ESO started a mooring buoys campaign in an attempt to protect the coral reefs in popular areas from damage by the anchors of boats.

The Turtle Research and Conservation Project and Protected Areas Project are now in their third year of implementation. The Whale and Dolphin Project has been running for more than nine years. However, there is also always scope for new ideas either to expand existing projects or to initiate new projects. In that respect, members of ESO's marine team keep track of conservation initiatives and priorities at regional and global levels. Such diversification of knowledge allows a more informed position with respect to ocean management and protection. The decline of shark populations for instance has become a global concern in recent years due to escalation of the global shark finning trade. Accordingly, ESO's team has been involved in a few activities in this respect such as:

- Review of the literature of current shark population trends and pressure on fishing in the region and discussion with international and regional experts concerning conservation concerns
- Discussion on research efforts with researchers at the Sultan Qaboos University (SQU)
- \* Attendance of Arabia's first 'Whale Shark Symposium' in Fujairah in December 2009, during which knowledge was acquired on techniques in whale shark research and management, and technical inputs were given for the formation of a regional whale shark research programme.

Through its marine projects, ESO continues to cooperate with the Omani Government in order to help further common goals, through regular meetings as well as research and advice in specific areas, such as:

- Contribution of information on marine wildlife to the National Report for the Convention on Biological Diversity (CBD) for the Ministry of Environment and Climate Affairs (MECA).
- Undertaking of the Ras al Hadd lighting survey commissioned by the Ministry of Tourism (MOT).
- Cooperation and data sharing on whale and dolphin reports and preparation of scientific papers with the Ministry of Fisheries' Wealth (MFW).
- Participation to the National Cetacean Stranding Committee Meetings under UNEP's Regional Organisation for the Protection of the Marine Environment (ROPME) hosted by MECA.
- Provision of information on marine species to MECA and the Royal Omani Police for new legislation related to the Convention on International Trade in Endangered Species (CITES).

The marine projects heavily reply on funding from third parties raised through the submission of proposals to international, regional and local funding agencies as well as the private sector.

### 1.1- TURTLE RESEARCH AND CONSERVATION

All species of marine turtles are considered to be in danger of extinction and are classified by IUCN's Red Data List as Endangered Species. The hawksbill turtle is now classified as Critically Endangered, the final category before extinction.

Green, hawksbill and loggerhead turtles nest in Oman in globally significant numbers. Ras Al Hadd is one of the largest green turtle nesting colonies in the world and hawksbill nesting at the DINR is of global significance to the species, in the most part due to the high density of nesting at the islands. In few other locations in the world are so many hawksbill turtles to be found in such a small area. As for the loggerheads, the IUCN Marine Turtle Specialist Group recognises Oman's loggerhead turtle population as the largest in the world, and among the top ten priorities for marine turtle conservation on a global scale, and potentially the most critical site for the preservation of the species in the long-term. Loggerhead turtles nesting on Masirah Island is unsurpassed by any comparable nesting location in the world, with an estimated nesting population of 30,000 females, making the island host to possibly as much as 40% of the world's nesting loggerheads. In addition to the DINR and Masirah Island, Oman hosts nesting turtles on at least 350 beaches along its coastline and it is thought that coastal waters support feeding green and hawksbill turtles in their tens of thousands. The Sultanate is therefore a country of great potential importance for the future of marine turtles.

Over three years ago, MECA (MRMEWR at the time) identified ESO as a partner in its turtle conservation project and designated ESO as the official recipient of the award from the US Marine Turtle Conservation Fund (MTCF). Since the successful completion of the first project, ESO received other awards from MTCF which enabled further tagging of green and hawksbill turtles at Ras al Hadd and the DINR as well as other work towards the ultimate aim of assisting with the strategic development of turtle conservation in Oman. This work, which has developed into a significant international collaborative programme, revealed valuable information about turtle populations in Oman. The work on this project is a collaboration among

individuals from the world's foremost turtle specialists, including those from such internationally renowned institutions as the National Oceanic and Atmospheric Administration (NOAA), the World Conservation Union (IUCN) and the US Fish and Wildlife Service.

Over the past two years, turtle research has focused on the high profile satellite tagging programme, involving the attachment of satellite transmitters to nesting turtles and subsequent tracking, via satellite, of their movements over the 9-12 months of the transmitters' battery life. The project has been a resounding success and results have been a scientific enlightenment. This is an indication of where our turtles go after nesting and provides good evidence of potential feeding grounds, as well as migratory routes. You are able to see them, and track their movements daily at <a href="https://www.seaturtle.org">www.seaturtle.org</a>. Masirah Island, it seems, is a critical habitat for both nesting and feeding of all kinds of turtles.

The main project activities in the past two years can be summarised as follows:

Recruitment and training: MECA had identified that the current capacity of rangers on Masirah Island is insufficient to meet the management needs of turtles. In the approved proposals awarded to ESO's project we had included the provision for the recruitment of additional rangers (ranger assistants) to supplement the existing government ranger programme on Masirah Island in 2008 and 2009. Candidates were jointly selected by MECA and ESO from the local community on Masirah Island and were paid during the course of the loggerhead turtles nesting season (April to July inclusive). Ranger training was achieved through two annual workshops and subsequent accompaniment in the field. The training was conducted by three international experts in the field of turtle research and monitoring, as well as ESO team members. Information collected by rangers was periodically checked during the nesting season for accuracy and relevant feedback was provided. Local young women from the Omani Women's Association on Masirah benefitted from this training for the two consecutive summers to do the data entry.

Another element of the training was developing the skills of ESO Omani team members. Throughout the course of the project, a nominated Omani ESO trainee has accompanied other ESO team members as well as visiting specialists and was trained in all aspects of the project, from project management through to field survey techniques. In the summer of 2009, a one-month training visit was arranged for the Masirah Head Ranger as well as the Omani ESO trainee to Florida's loggerhead turtle nesting research programme, which is most comparable to Oman's situation with a similar sized population of nesting turtles.

**Provision of materials and equipment for data collection:** Two All terrain Vehicles (ATVs) were provided to rangers on Masirah Island designed to allow for speed of monitoring without the use of a 4x4 vehicle which damages beach vegetation and potentially turtle nests. ATVs are successfully used on Masirah due to the distances that need to be covered daily.

**Nesting beach surveys and data analysis:** Survey protocols for nesting beach surveys for Masirah, Ras al Hadd and the DINR were developed to ensure that data collected were relevant, scientifically robust and reliable. Data collection was also

conducted in cooperation with rangers at the DINR during the nesting seasons. The project continued to support the appropriate management and analysis of Oman's over thirty-year data set and ensured that new data received from MECA rangers from all survey sites around Oman were properly stored and analysed. This will be a continuous process and as results of analysis become available, they will be used to help inform conservation management decisions. ESO's team members also undertook a preliminary investigation of loggerhead turtle by-catch in summer 2009 in coordination with a visiting scientist from NOAA, USA.

Awareness raising and collaboration: The project continued to foster the growing awareness of turtle conservation in Oman through public awareness programmes. This included contribution towards ESO posters, yearly planners and talks to the public and to schools. In addition, marine team members provided articles and information to media and attended press conferences. ESO is also chairing the Ras al Jinz Turtle Centre Steering Committee and actively contributing to meetings and discussions in this regard. In addition, ESO is coordinating with the World Wildlife Fund (WWF) in the United Arab Emirates for a proposed regional turtle satellite tagging project starting in 2010.

### 1.2- WHALE AND DOLPHIN RESEARCH

As top predators of the marine food chain, whales and dolphins are also representative of broader ecological concerns, providing insight into the health and condition of the marine environment in general. Their habitats are also varied and widespread ranging from shallow, near shore waters to the deep oceans. They therefore also offer indication of, and opportunity for, a much wider understanding of marine conservation needs and with their protection and management, comes the prospect for inclusion of a wide range of accompanying marine life and processes. Their unrivalled attraction in the public eye further enhances their role as flagship species and presents opportunity for sustainable economic exploitation through ecotourism.

The project's research is achieved through coastal and offshore studies, as well as beach surveys, and includes distribution and abundance studies, genetic research, population studies, studies of ecology and habitat use, acoustic studies, behavioural studies, investigations of pollution and health concerns, and more. Results of research are shared with government agencies in order to develop conservation strategies, and with a wide range of collaborators from the international scientific and conservation communities in more than ten different countries. They are also used for public awareness raising and education in the Arabian region, in order to teach the general public and future generations about the wealth of marine life in their waters. ESO members of the research team presented some of the recent results at Indian Ocean Cetacean Symposium held in The Maldives in March 2009, held to mark the 30<sup>th</sup> anniversary of the creation of the Indian Ocean Whale Sanctuary.

One of the overwhelming values of this project is its continuity. Data collected during the course of the project has begun to reveal ways in which our marine environment is changing which allows us to identify with far greater accuracy, current and future conservation needs. An example includes genetic and photo-identification studies of humpback whales conducted over a seven-year period, detailed results of

which were revealed in late 2007. The results support the theory that Oman's humpback whales are part of a genetically isolated population, and for the first time also reveal that this unique stock is among the most endangered population of any whale or dolphin anywhere in the world (numbering in the low hundreds), and that the population may be in decline. The research results greatly contributed to the major achievement of the recognition of Oman's humpback whales as a distinct stock by the International Whaling Commission, adding Stock 'X' to the list of five other known stocks (A, B, C, D and E) worldwide. IUCN conservation status assessment for humpback whales revealed this population to be among the rarest of all baleen whales anywhere in the world and provided an official category of Endangered for the Arabian Sea sub-population (see <a href="https://www.iucnredlist.org">www.iucnredlist.org</a> for more information).

In 2008 and 2009, field research was limited partly due to difficulties in obtaining a suitable vessel for offshore survey work and lack of funds. The shore-based survey work and beach combing for dead whales and dolphins in the meantime was our main source of information. Similarly, the ability to raise awareness, undertake education and training initiatives and work with government and other offices for the benefit of conservation was also compromised by the paucity of financial resources for the project. In the past two years, the major activities undertaken can be summarised as follows:

Data collection and analysis: Data collection included DNA sampling of dead cetaceans, records of incidental sightings of live cetaceans during small boat transit and from third party reports, in addition to the photo-identification matching work on humpback whales from Oman and other countries in the Indian Ocean. All records were entered and stored on our dedicated cetacean database. The data collected on spinner dolphins and the dolphin watching industry was analysed as were stomach contents of bottlenose, spinner and long-beaked common dolphins. There has also been continued assessment of results of humpback whale genetic analysis along with the publication of research papers in peer-reviewed journals.

Emergency responses and contributions: The research team members were actively involved in responding to strandings, one of which included a rare sub-adult blue whale that was washed up on Masirah Island. Another special contribution was for a chapter on Oman in a special report on worldwide whale watching and economic analysis published by the International Fund for Animal Welfare (IFAW). The team also provided information for the publication of an article on the project for the Ministry of Information's annual review in addition to furnishing articles and information to the local media. In addition, one of the team members was interviewed by the French TV station Planete Thalassa to highlight the work of ESO in general focusing on the importance of protecting Oman's humpbacks.

The Whale and Dolphin Research Project has previously hosted two UK university PhD students studying whales and dolphins in Oman. In late 2009, another ESO volunteer working with the group developed his plans for a PhD, which will facilitate a library of reference materials, databases, catalogues and other information repositories related to cetacean research in Oman.

### 1.3- PROTECTED AREAS PROJECT

This project focuses on the continuation of the DINR Project as well as the proposed protected area of Masirah Island.

The DINR was established in 1996 and is still Oman's only Marine Protected Area. ESO's project on DINR began in May 2006 with the main aim of surveying the marine and terrestrial environment of the islands and their human use, in order to document their current distribution, status and value, as well as to enable comparison with past surveys. In addition, the project aimed to assess the potential for further use of DINR for training of Omanis and for education of both the Omani public and tourists and ultimately use the information collected to inform management options for the future. The project focusing on the proposed protected area of Masirah Island is funded by the US Fish and Wildlife Service, whilst the DINR project was, until 2009, run with support from the Indian Ocean Research and Conservation Organisation (IORCA). New funding was obtained to continue the DINR project in 2009 and into 2010 from the US Environmental Protection Agency (EPA). Under EPA, the project includes new elements such as oceanographic sampling, data collection and other additional fieldwork, focusing largely on coral reef research and impact assessment. The project is additionally supported by local sponsors, including Five Oceans LLC, with whom ESO has an MOU to enable staff support. Five Oceans also provides a boat and vehicle for the project.

There have been a number of trainees involved in this project, all of whom are SQU graduates. Three of these have now acquired full time jobs as environmental engineers in the private sector and no longer have a regular input. Another two remain active members of the project team. In addition, numerous volunteers have been involved in various aspects of the project including fieldwork, logistics and data analysis. There is some project overlap between this project and the Turtle Research and Conservation project funded by US FWS. During the past two years, activities under the Protected Areas Project included:

- Continued assessment of natural resources, including assessment of damage from Cyclone Gonu and monitoring of recovery.
- Cooperation with the US Department of Interior's International Technical Assistance Programme (ITAP) including hosting two US experts for a detailed review and assessment of DINR and Ras al Hadd protected areas.
- Collection of information and assessment of the potential for a Proposed Protected Area on Masirah Island, including fieldwork and data analysis.
- Hosting of a regional expert on soft corals as part of the DINR fieldwork programme in cooperation with the SQU.
- Hosting of EPA representative tasked with reviewing project components and visiting DINR.
- Continued liaison with the government authorities with regards to reserve management needs and continued assessment of ecotourism opportunities and requirements with the government authorities responsible for that aspect.

### 1.4- MOORING BUOYS CAMPAIGN

Coral reefs, often referred to as the lungs of the sea, are one of the most valuable and important components of the marine environment. They store  $CO_2$  and provide oxygen, food and shelter to other marine species. They provide essential functions related to the fisheries and tourism industries and protect our shorelines from erosion. Mooring buoys are stations to which boats could be tied up to avoid dropping their anchors into the sea and damaging the coral reefs. Mooring buoys have proven throughout the world to be an effective measure to secure the boats while protecting the coral reefs.

Oman is famous for its coral reefs and ESO noticed that some of the best-known dive and fishing sites did not have mooring buoys. Since its inception in 2004, ESO has recognised the importance of deploying buoys in such sensitive sites and there were a few attempts to deploy buoys in the early years. In 2008 ESO's plans in this regard further materialised when Muriya agreed to sponsor 12 buoys and MECA offered their support and expertise in the deployment of the buoys. Other private sector companies joined in afterwards such as Six Senses Zighy Bay Hotel in Musandam, Bank Sohar and Bank Muscat with 12 more buoys to be deployed soon.

Through this project, ESO continues to make a difference in preserving the natural resources of Oman. In addition to the deployment of the buoys, ESO encourages fishermen and tour operators to tie up the boats to the buoys and help ESO spread the word about this initiative to protect the unique species of coral reefs of Oman.

### 2-TERRESTRIAL CONSERVATION PROJECTS

### 2.1- CONSERVATION OF INDIGENOUS FLORA

The aim of this project is to raise public awareness of the importance of native plants and trees to Oman's biodiversity. In November 2008, ESO published a book by Mr. Clive Winbow, entitled "The Native Plants of Oman: An Introduction" in an attempt to open the door to all those who can contribute information gathered from their own conservation efforts. The book is a handy guide for the amateur naturalist to identify over 150 wild plants that are commonly seen on walks in the Omani countryside. The book also helps environmentally-conscious gardeners who wish to cultivate native Omani plants in their gardens and homes, and describes some of the plants' traditional uses in the household.

### 2.2- SOOTY FALCONS RESEARCH

Sooty Falcons are birds which only breed in the Middle East and North Africa and winter in Madagascar and coastal South-East Africa. New population estimates are 1/40th of previous estimates, resulting in a lowering of its IUCN status. The islands of Oman hold about 10% of the global population, hence data on reproduction, longevity and dispersal are basic to understanding this bird's population trends and stability.

In 2008 and 2009, ESO provided financial and logistical support to a team of

researchers from National Research UK, who surveyed Fahal Island, DINR and the Sawadi Islands for sooty falcons. In 2008 ESO contributed to the research from its own administrative funds whereas in 2009 a proposal was jointly written and submitted by ESO and National Research UK to the Ford Foundation which approved it. For the past two years, the sooty falcons' project conducted basic research on sooty falcons nesting in Oman the results of which underpin wise conservation actions. New technology was used to understand population trends and stability. Birds were marked with numbered rings and microchips as part of a mark-recapture scheme. This scheme is unique for sooty falcons and it is currently the largest project on sooty falcons in the world. In addition, the researchers sampled blood to examine genetic make-up of the population and initiated diet studies.

Apart from basic conservation-focused research the study provided possibilities for training of local rangers, environmental scientists and consultants and university students, thereby leveraging funds and providing add-on benefits at no additional cost. The aim of the project is to continue the survey of sooty falcons in Oman and establish a long-term monitoring and research programme.

### 2.3- FRANKINCENSE RESEARCH

Frankincense in Oman plays important historical, social and environmental roles. The frankincense tree is an integral part of Oman's heritage. Frankincense trees also grow on marginal land not suitable for ordinary agriculture, protect the soil from erosion, provide green cover, produce good biomass and provide shade. This research project is also unique in that it is the first project that the ESO is implementing in the Dhofar region.

There has been close monitoring of the growth pattern of frankincense in the past few years and researchers noticed that the cutting of the trees to collect frankincense has been harsh often leading to the degeneration of the tree beyond repair. On the other hand, changes in the climate over the past few years might have their own impact on the growth of the frankincense trees in the region of Dhofar. For these reasons, it was considered important to monitor the two factors and record their impacts on the sustainability of the farming of frankincense in Dhofar.

This research aims to determine the right frequency of cutting to get a good yield without harming the trees. The research indirectly encourages the old frankincense farmers' families who are currently quitting the business and moving to the big cities, to believe in the viability of this business again and move back to the mountains to re grow frankincense trees. This in turn will engender two major benefits:

- Revitalization of this generations-old business since there are different studies that prove the dwindling of this resource
- Minimisation of urban sprawl in the Southern region of Oman. Urban sprawl leads to cutting trees in order to accommodate the new comers and build infrastructure to support their lifestyle. Hence, another major benefit of this study is to encourage people to stay in or move back to the mountains and minimise the pressure on the green cover in Dhofar.

### **B- AWARENESS AND COMMUNITY OUTREACH**

This on-going umbrella project raises awareness on different environmental issues at the public, business and decision-making levels. Most of the projects under this category open up opportunities to actively involve members of the public in environmental protection activities and acquaint them with environmental issues at the local, regional and global levels, demonstrating ESO's commitment to action as well as general awareness raising.

### 1- "SAY NO TO PLASTIC BAGS" CAMPAIGN

Plastic bags are a serious threat to the environment. Their characteristics of inert material, flexibility, extreme light weight and mobility has led to their encroachment upon every aspect of life, to the detriment of the visual appreciation of our environment and the damage to certain aspects of it – not least the problems caused by blocked drainage, and domestic and wild animals ingesting them or becoming entangled in them, leading to starvation and death. Globally, approximately 1 million seabirds and large numbers of marine mammals die each year by suffocation caused by plastic bags mainly mistaking them for food.

Oman is no stranger to this scenario. Bags are carried by the wind to the desert, wadis and sea and many of Oman's birds and marine and land mammals die due to our frivolous use of plastic bags. The aim of ESO's "Say No to Plastic Bags" Campaign is to reduce the amount of plastic bags used in Oman with the long-term goal of legal regulation of plastic bags. The campaign began in 2004 but due to lack of resources, never progressed past the manufacturing and selling of reusable canvas bags in a few retail outlets in Muscat. The overwhelming demand of a more intense and meaningful campaign from both ESO members and public supporters encouraged ESO to launch a 6-months campaign which included awareness raising, surveys, training of retail staff and led to a document with supporting statistics to be presented to MECA with the intention of urging plastic bag regulation in the Sultanate. The campaign ran from October 2008 until March 2009, targeted the public (consumers, children, and college and university students), retail outlets and the Government of Oman and was generously funded by Oman Liquefied Natural Gas (OLNG LLC).

ESO approached major retail outlets to become partners in the campaign. The consumers were targeted using SMS, newsletters, press conferences and press releases, promotions and posters at retail outlets, giveaways, magazine features, etc. School students also participated in the campaign through drawing competitions and ESO distributed a self explanatory presentation in both English and Arabic to the schools explaining the negative impacts of plastic bags. It was important for ESO to people in and outside Muscat, so a trained team of two young Omanis travelled in a branded van and visited 6 cities over the 6 months: Sur, Sohar, Nizwa, Ibri, Salalah and Muscat. The team spent 3 days in each city touring surrounding areas talking to people about the negative impacts of plastic bags and offering alternative reusable bags as well as branded t-shirts and awareness materials.

A photo competition was open to the general public and announced through the media and photos of plastic bag pollution were sent to ESO for judging. A fun event targeting the public at large crowned the campaign in February 2009. At the "Green

Pace", people walked, ran, cycled, rollerbladed or used any mode of transport that did not produce emissions to get from start to finish. The event ended with the distribution of prizes to the winners of the photo and drawing competitions.

At the end of the campaign, ESO submitted a report which provided a collation of information on different aspects of plastic bag use in general and in Oman in particular. The report also has key performance indicators and an extensive analysis of the survey conducted as part of the campaign and a series of recommendations.

The survey findings indicated that around 500 tonnes of "single-use" plastic bags are issued annually by the major retail chains, to be used again as rubbish disposal containers and buried in landfill – if they are re-used at all. At least 9,000 tonnes of bags and packing films are manufactured locally per year, with over 300,000 tonnes of resin produced for the manufacture of all plastic items in the Sultanate. The solutions suggested in the report range from complete banning of the bags, charging for them to give them perceived value, their manufacture using "degradable" materials to ensure they break down wherever disposed of, and the establishment of a recycling ethos and system. The most successful solution would seem to be a combination of imparting a value through regulated charging for the plastic bags, which encourages their re-use and the use of long-lasting alternatives.

ESO is currently considering a second phase of the campaign.

### 2- ANTI-LITTERING PROJECT

Litter reduces the aesthetic appeal of public places, can kill aquatic life, causes blockages of the drainage systems, can potentially be dangerous to people particularly when it involves sharp objects and costs the community huge sums of money to clean up every year. Oman is gifted with pristine and unique natural environments and this project takes serious steps to preserve the prime natural locations from visual and environmental pollution created by litter. For this and in line with its mission, ESO launched a pioneering project in 2008 in close collaboration with Muscat Municipality (MM) under the sponsorship of Petroleum Development Oman (PDO). The project aimed at reducing the amount of litter found along the beaches of Muscat. For this purpose, ESO and PDO signed a Memorandum of Understanding in 2008. The project outputs can be summarised as follows:

- Thirty containers manufactured and branded with instructional logos.
- Twenty signboards manufactured and painted with instructions in Arabic and English.
- A boat especially manufactured for the collection of waste from the beaches which are not accessible by car.

Containers and signboards were fixed along the beaches in Al Seefa and Bandar Al Khayran and the boat has already been put to use.

An awareness-raising campaign implemented in the nearby villages of Al Seefa and Al Khayran in collaboration with MM Awareness Unit. As part of the campaign, posters, leaflets and bookmarks were designed with messages encouraging kids and adults alike to keep their beaches clean. In addition, drawings which illustrated the same messages of protecting the beaches were made and distributed to the young school kids to paint and comment on. The awareness materials, made by local companies to benefit the local community,

- were distributed to households, local markets, mosques and schools. In addition, talks were delivered in local schools on the importance of preserving the beaches and keeping them clean, in collaboration with MECA.
- A public event was planned to mark the launch of the project on Al Seefa beach and was attended by a large number of people from the local community as well as different stakeholders. It involved:
  - a. The distribution of T-shirts and caps especially made for the event, gloves and bags for the beach clean-up exercise.
  - a. Social gathering for the local women in the Sabla to discuss environmental issues of relevance to the campaign.

The wide press coverage of the launch, in both English and Arabic papers was an additional medium to raise the awareness of the larger public with regards to littering.

A few months after the implementation of the project, MM presented the project to the Arab Towns Organisation Award in Qatar as one of the major environmental projects implemented in Muscat. As of this date, the results have not yet been announced.

ESO is planning to expand this project and secure funding for a phase II, possibly in Musan'ah or Ras Al Hadd.

### 3- CLIMATE CHANGE AWARENESS PROJECT

Climate change is a serious environmental problem with social, economical and political implications on the whole world. Through our daily activities and in almost everything we do, we heavily rely on the burning of fossil fuels –whether directly or indirectly- and hence increase the concentration of  $CO_2$  in the atmosphere and worsen the situation. It is the responsibility of each one of us therefore to make a difference and minimise our contribution to greenhouse gas emissions by introducing some simple behavioural changes to our lives.

This project aims to increase children's environmental awareness and build their capacity to identify the impacts of their behaviours on the environment around them. It introduces behavioural patterns which have a reduced impact on the climate so they become an integral part of the lives of the children as they grow up. In collaboration with the Ministry of Education, ESO undertook a thorough review of the government school books and identified in which module the awareness material would fit best so as not to burden the students with extra work. The themes chosen to be tackled related to minimisation of consumption of energy, water, and other natural resources to reduce carbon footprint as well as planting native trees to rid the atmosphere of the emitted carbon dioxide.

The tool devised to carry out the awareness raising is a series of fun individual stickers (in Arabic) with individual tips and illustrations of behavioural patterns which kids can easily apply in their daily lives. The tips were backed up by scientific and numeric values of savings in energy and water on the back of the release paper. ESO made sure to design the sticker in a way that no solid waste material was generated in the manufacturing process.

At the beginning of the academic year 2009-2010, the awareness materials were

distributed to all the government schools all over Oman mainly targeting children aged 8-12 years and through them all the other children and parents. This is the first ESO project which covers all the Sultanate and ESO will ensure, with the assistance of MOE that the mechanism is implemented as planned and the feedback of the school teachers on changes in knowledge, attitude and behaviour of the kids as a result of the information circulated is well documented.

The design for the English stickers is ready and ESO is currently considering securing funding for these to be printed and distributed to the private schools.

### 4- ENVIRONMENT IN THE CURRICULUM (GOVERNMENT SCHOOLS)

Environmental education at its essence is a process through which knowledge, values and skills are inculcated in students ultimately aiming at instigating behavioural change. It begins with the understanding of the interrelationships between humans and the environment, and leads to the appreciation of the environment and its constituents. Through its multi-disciplinarity, environmental education contributes to the development of the students' personality and equips them with critical thinking skills. In an attempt to build a positive culture towards the natural environment and its constituents, and translate awareness into positive behavioural change, practical steps were taken to establish environmental education as one of the major cornerstones of the educational system in Oman.

A joint effort between MOE, MECA and ESO with financial support from Shell, this project is the first of its kind in the Arabian Gulf region. Its ultimate output was an environmental education document which mainly aims to:

- Develop environmental awareness in the students and build positive attitudes towards sustainable exploitation of natural resources.
- Inform the students about environmental legislation in the Sultanate and its reinforcement to protect the environment.
- Encourage participation in environmental decision-making.

The preparation of the environmental education document went through different stages and the team was established by ministerial decree in late 2007. An analytical study of Oman's school books was performed in accordance with a list of concepts of sustainable development. A matrix was then built detailing the scope and sequence of environmental concepts and the formulation of cross-cutting skills. Each environmental topic had its objectives formulated and manuals were prepared to reflect different activities under each topic. In addition, school supervisors and teachers were trained on how to address different environmental concepts in the school curricula.

After more than two years of hard work, this project was crowned by a document detailing environmental concepts and how they are taught in the government schools curricula. The partnership between government institutions, civil society organizations and the private sector for this project is yet another exemplary model on how to achieve the common goal of safeguarding the environment by building positive attitudes among children and youths. The document is in its final stages. Once completed, it will be distributed to the schools across the Sultanate.

### 5- PLASTIC AND PAPER SEGREGATION SCHEME

Waste prevention and resource conservation are very important concepts to be applied to every facet of our life. The keys to achieving that are the three R's: Reduce, Reuse and Recycle. This means focusing on reducing waste at its source, reusing what cannot be reduced and recycling what otherwise would be thrown away, in order to keep as much "wastes" as possible away from the landfills and reduce the valuable natural resources that go into the manufacturing processes. This process is also a money-saver; the less waste you create, the less waste you have to manage.

In an attempt to raise awareness of these issues, ESO initiated a segregation scheme to encourage consumers to separate different materials at source and divert the recyclables away from the landfills. It is important to note that ESO endeavours to focus on reduction and reuse of materials first and encourages recycling only as a last resort.

Aside from raising awareness, the aim of the segregation scheme is to promote corporate and public recycling projects in order to minimise the amount of solid wastes generated in the Sultanate, conserve natural resources and reduce pollution. The primary target materials for this project so far are: cardboard, paper and PET plastics but we are constantly looking for opportunities to include other materials as well. In this project, ESO facilitates the interaction between different stakeholders and secures the link between the cleaning contractors or "taker companies" which collect the recyclables and the source of the materials to be segregated. ESO coordinates the placement of the collection containers on the premises of the interested parties and waste dealers provide the pick-up service. For this, ESO largely counts on people's environmental interest and their responsibility to do their bit for the environment. ESO does not get any financial output from the process. The reward is to monitor the growing number of people joining in their efforts and segregating the materials whether at the level of the household, school/college or the office.

The main activities that ESO has attempted so far under this scheme can be summarised as follows:

- Establish contact with a large number of taker, supplier, and facilitator companies and organisations
- Establish the link between over 50 establishments and taker companies of paper, cardboard and plastics and regularly monitor the progress and the feedback.
- Hold open discussions with government institutions to start segregating their paper and plastic wastes. MECA was the pioneer in joining hands with ESO by starting the segregation of paper in the offices. ESO delivered a talk on the project's aims to the employees of MECA in April 2009 and shortly after MECA employees started segregation.
- Place collection containers on ESO's premises to facilitate the deposition by the public interested in doing their bit and segregating the paper and plastic "wastes".
- Hold talks in schools, colleges as well as companies to promote the scheme and encourage people to enhance their environmental image. The talks also shed the light on the importance of buying recycled goods in order to close the loop. A particular event under this scheme was a "segregation demo" that ESO held as part of MOE's training of 300 English teachers from government

schools all over the Sultanate. A team from ESO held a series of talks at the event encouraging the teachers to segregate the wastes produced onsite during the 3-day-event. Sets of coloured branded bins were placed everywhere on the premises with posters and instructions encouraging people to take part in the activity.

### Segregation of paper and cardboard:

More than 75% of office waste is composed of paper, most of which can be reused or recycled. Using less paper is the quickest and most efficient way to prevent trees cut down. It is estimated that each ton of recycled paper can save 17 trees, 380 gallons of oil, 4,000 kilowatts of energy and 7,000 gallons of water. The main elements of the paper and cardboard segregation scheme of ESO can be summarised as follows:

- Funded by MM, six government schools in Muscat joined the scheme in 2007 and started segregating paper and cardboard.
- A pilot project was established in different departments at SQU.
- Twenty private educational establishments joined the scheme. Containers were purchased and branded by logos and instructions about what could –and could not- go into the containers to be collected by the taker company and recycled. These containers were sponsored by Omran.
- After the coverage in the media and word of mouth through ESO's members, private sector companies, embassies and residential compounds joined in.

However, this aspect of the segregation scheme has two major limitations. The absence of paper recycling facilities in Oman is a major hindrance. In addition, the collection companies are not paid for the collection services but they sell the collected materials to facilities outside Oman so they are constantly faced with the major challenge of maintaining the cost effectiveness of the work they do. ESO has so far changed the collection company twice due to the cost ineffectiveness of collecting free of charge.

### **Segregation of plastics:**

In 2007, ESO partnered with Masafi water's local distributor, Enhance (previously known as Muttrah Cold Stores) to place plastic bottles' collection containers in a couple of private schools in Muscat. The Enhance team took it upon themselves to collect the bottles from the schools and transport them to Dubai in the empty trucks used to transport the water bottles into Oman and which have to go back to Dubai anyway.

In the summer of 2008, National Mineral Water contacted ESO to join efforts in the plastic segregation and collection scheme. ESO and Enhance welcomed the idea and a partnership agreement was reached among the three stakeholders whereby ESO established the contact between interested parties and Enhance/National Mineral Water, which in turn would place the collection containers on the premises of the interested parties and collect the segregated materials free of charge. The PET collected through these efforts becomes the raw material of the PET recycling company in Fujeirah established by National Mineral Water. This is one of the major missing links in the chain of the paper aspect of the project.

#### **Segregation of cans:**

ESO started a pilot project for cans collection in one of the private schools in Muscat

in 2008. However, this component did not succeed mainly because the residents of Muscat were used to giving the tin cans away to the refuse collectors and/or housemaids to sell them for a minimal fee. So after months of starting the tin collection scheme, a very small number of cans actually reached the collection container.

As an NGO, ESO has limited financial and human resources to establish the infrastructure for recycling. ESO hopes that with the establishment of the Oman Environment Holding Company, which mandate is to manage solid wastes in the Sultanate, the issue of resource conservation and waste minimisation will be taken to a different level. At the moment the challenge remains to get more and more people on board and keep the taker companies happy with the process. ESO is always on the look for more opportunities for the collection of other materials like glass. In March 2009, ESO participated in a GCC seminar organised by the UNESCO office in Qatar in order to share experiences and challenges faced in this project with the other NGOs in the region that are involved in similar projects. The UNESCO office intends to establish a network of recycling initiatives in the region to share concerns and benefit from success stories.

### 6- EVENTS ORGANISED/CO-ORGANISED BY ESO

Further to its involvement in the above mentioned activities and as part of its education and public outreach umbrella project, ESO organised and/or partnered with other stakeholders to organise awareness raising events on different occasions.

#### In 2008

- For the Oman Environment Day, organisation of a movie week and an environmental quiz published in the Times of Oman.
- Chosen to be the beneficiary of an Environmental Challenge organised by Eventscom. The event focused on waste minimisation and involved a series of activities targeting teams from different companies and designed to promote corporate team work.
- Mosting of the passengers of the Japanese Peace Ship during their passage in Oman in 2008. ESO gave a series of presentations on the Omani environment and ESO's work and organised a field visit to Qurum Nature Reserve to introduce the group to the importance of the mangroves for Oman.
- Sponsorship contribution to the Mountains of the World: Ecology, Conservation and Sustainable Conference organised by SQU. The conference brought together a forum of mountain researchers from developed and developing countries who shared results of their research.
- Organisation of a quiz night at The American International School Muscat (TAISM). The main purpose of the quiz was to increase public awareness of environmental issues.
- In partnership with the Wold Health Organisation office in Oman, MECA and the Ministry of Health, organisation of a 2-day exhibition on "Climate and Health". The exhibition was part of the celebrations of the World Health Day.
- Mentoring and judging at Quest, an annual intercollegiate festival and competition organised by the Middle East College for Information and Technology (MECIT). The theme for that year was environmental protection.
- Holding talks on different environmental issues in Dibba, Musandam in

- celebration of the Earth Day. The events were co-organised by the Six Senses Hideaway Hotel in Zighy Bay. The audiences varied from local villagers to school kids to hotel staff and guests.
- In collaboration with Origin Oman campaign, the Ministry of Commerce and Industry and Omran, preparation and launch of the bilingual Go Green Guide. The booklet provided simple tips which individuals could easily incorporate in their daily lives to reduce their carbon footprint.
- In collaboration with MECA, preparation for and participation to the Third Youth Environmental Forum of the GCC countries hosted by the Sultanate that year. The event took place in Salalah and ESO contributed a presentation, participated in the preparation of the quizzes and contributed short films on the Omani marine environment. ESO members in Salalah joined efforts with the ESO team to set up the stands at the exhibition accompanying the forum and which was held as part of the Salalah Festival.
- Co-organisation of two events for the United Nations Environment Programme Regional Office for West Asia (UNEP/ROWA). ESO was proud that UNEP chose to hold the regional events in Oman and have ESO as the local partner. The meetings were held under the patronage of MECA and with the support of the Islamic Educational, Scientific, and Cultural Organisation (ISESCO). The "Regional Civil Society Consultation Meeting" was attended by 30 representatives from non-governmental organisations (NGOs) in the Arab region and provided a unique opportunity to contribute their views on climate change and its challenges in the region, chemical management and mercury, as well as globalization and the environment. The "Sub-Regional Workshop on Public Participation in the Environmental Impact Assessment (EIA) Process" was attended by 15 representatives from civil society organisations (CSOs) from the GCC region. The second meeting was part of a larger project on Capacity Building in EIA and Promotion of Public Participation and aimed to build capacity in West Asia in reviewing EIAs both by the regulatory agencies and civil society organisations to ensure the environmental sustainability of development projects in the region.
- Sponsorship of a 3-week awareness raising campaign in Buraimi led by a dedicated ESO member Ms. Hawaa Al Belushi. ESO provided awareness raising material and funds to cover the expenses of the campaign which targeted school kids, teachers and parents.
- Winning the Oman Web Awards for the year.

### In 2009

- Organisation of two parallel activities in celebration of the Oman Environment Day. The first activity was the launch of its No to Plastic Bag campaign simultaneously in 14 different retail shops around Muscat with posters, pull up banners, leaflets, bags and questionnaires to raise the awareness of shoppers on the negative impacts of plastic bags. Over 200 volunteers took part in the event which gained wide coverage in the local media. The second activity was a public event co-organised by MECA, Ministry of Agriculture and Muscat Municipality in Al Sahwa gardens aimed at raising awareness about the Oman Environment Day.
- In collaboration with the Omani Cinema Association, assistance with the organisation of and the judging process of the Green Movies Festival.
- \* Participation to the United Nations' (UN) "Seal the Deal!" worldwide climate

change campaign. Because we strongly believe that every voice counts, we encouraged people in Oman to sign the online petition and were able to secure over 600 signatories under ESO. The petition and signatures were presented by civil society organisations to the governments of the world in Copenhagen in December 2009. As the UN declared, "the campaign [aimed] to galvanize political will and public support towards signing a new UN agreement on climate change".

- Participation to the summer camp organised by the Omani Scouts in Salalah for 10 days. ESO was part of the event through displays and presentations delivered to the scouts and visitors of the Festival.
- In partnership with the French Embassy in Oman, preparation for the Symposium on Sustainable Development in Oman and the French Expertise.
- Co-supervision and advising of students from World Learning Oman Centre (previously known as SIT) who after the talks delivered to them by ESO were interested in writing their final project on environmental topics of relevance to Oman.

### 7- TALKS AND FIELDTRIPS

In the past two years, ESO delivered talks to different companies of the private sector on how to do their bit and make a difference to the environment around them. ESO also delivered talks to youths across all age groups at several educational establishments: different departments at SQU (Child's Care Centre, Department of Marine Sciences and Fisheries, Department of Tourism and English Department), World Learning Oman Centre, the German University of Technology (GUtech), MECIT, University of Dhofar, American British Academy (ABA), British School Muscat, Al Sahwa School and the Royal Guard Technical College. In addition, ESO participated to children and youths camps and contributed presentations on a variety of topics and delivered a talk to the MEPI (Middle East Partnership Initiative) alumni network in Oman. Through one of its board members who lives in Salalah, ESO participated to the celebration of the Tree Day in October 2008 organised by Dhofar University.

Once or twice a month and since its inception, ESO has been hosting public talks on different environmental topics of relevance to the Sultanate mostly generously hosted at the PDO Oil and Gas Exhibition Centre free of charge. The major talks that ESO delivered in the past two years were:

- Chemical Products in Our Daily Lives: Their impacts on health and the environment, by Mr. Ahmed Al Belushi (MECA).
- The Sooty Falcons in Oman: Summary of research findings, by Dr. Mike McGrady (National Research UK).
- Cancer Awareness: Environmental causes of cancer, by Ms. Youthar Al Rawahi (Organisation for Cancer Awareness)
- Native Landscaping and Backyard Conservation: How to save water, provide wildlife habitat, and beautify your surroundings, by Mr. Casey Burns (US Department of Agriculture).
- \* Barr Al Hikman: A keystone on the flyway of migratory shorebirds, by Mr. Raymond Klaassen and Mr. Jim De Fouw (WIWO expedition).
- Oman Botanic Garden: Beginning the journey, by the Oman Botanic Garden team in Oman.

- Sustainable Development Issues in Oman, by Ahmed Al Jufaili (Al Safa Environmental Consultants)
- Protecting the Environment in Islam (one talk in English and one in Arabic), by Sheikh Khalfan Al Isri.
- Environmental Impacts on Women's Health, Dr. Shyam Lal (Ministry of Health)
- How to Improve Energy Efficiency of Existing Domestic Buildings by Mr. Annadurai Balasubramanian and Mr. Ahmed Zeinelabdin (Atkins)
- Green Buildings by Mr. Craig Tucker (Bovis and Lens, Oman Botanic Garden project)
- A Revolutionary Tracking System for Wild Animals by Dr. Rory Wilson, (2006 Rolex Awards Laureate)
- \* Tagging Nesting Sea Turtles (Loggerheads and Leatherbacks) in South Africa by Dr. Anesh Govender (Department of Marine Sciences and Fisheries, SQU)
- Archaeological Research in Ad-Duqm by Dr. Reto Jagher (Institute of Prehistory and Archaeological Science of the University of Basel)
- Marine Phytoplankton as a Tool to Understand the Challenges in the Coastal Waters of Oman by Dr. Adnan Al Azri (Department of Marine Sciences and Fisheries, SQU)

In addition to the talks, ESO partnered with MECA and dive centres in Muscat on several occasions to organise beach clean-ups particularly on and around the DINR. ESO had designed pull up banners on all its projects as well as manufactured T-shirts, mugs and caps branded with ESO logo. These items were displayed and sold at several exhibitions in which ESO took part, namely, open days at SQU, Oman LNG' Health Safety and Environment fairs in Sur, PDO fairs and school fairs. ESO also organised field trips to the Breeding Centre at Bait Al Barka where the visitors were introduced to several wild animals from Oman raised and bred in captivity which otherwise they would not have been able to see in the wild.

### C- OTHER ACTIVITIES

### 1-ANNUAL BALL

It has become a tradition in ESO to hold a fundraising ball around April-May of every year. The ball involves in addition to the sales of the tickets, paintings which are partly or wholly donated to ESO and auctions on several valuable items which secure good sums of money put forward by generous bidders. The evening is usually attended by around 200 guests, representing friends of ESO, a selection of local business owners and other members of the community.

The event's main aim is to raise funds for the running of ESO, whereby the proceeds go to different areas and projects within the society, mainly capacity building. In the past two years, each ball raised around 40,000 RO. In 2008, the sponsoring companies were Renaissance Services, Occidental Oman and the National Bank of Oman (NBO) and in 2009 the exclusive sponsor was HSBC bank. In both years and for the third consecutive year, ESO is grateful to HH Sayyid Shabib Bin Taimur Al Said generosity for matching the amount of money fundraised at the ball thus doubling whatever ESO was able to secure. At the 2009 ball, Apex Publishing

generously pledged to support ESO in all its activities and offer its professional assistance whenever requested in any of its various publications.

### 2-LAUNCH OF ESO.ORG.OM

In December 2009 ESO launched its new website eso.org.om. This is the first website of its kind in Oman and apart from being fully bilingual, includes resources for anyone interested in the environment in general as well as detailed environmental issues in Oman. The site is regularly updated and has pages dedicated to children, teachers and parents.

### 3-MEDIA AND PUBLIC RELATIONS

Media is the most powerful tool of communication and can hence play a constructive role in any society. When it comes to environmental protection, the media can push things in the right way and largely contribute to the foundation of a large platform of aware citizens and responsible decision-makers. ESO believes that the media is a potentially strong ally and for this constantly seeks to partner with the press, radio and TV channels to spread its messages.

Through the years, ESO has been able to build a wide mesh of public relations at the local, regional and global levels. During the past two years, ESO nurtured the network by linking with different sections of the Omani society in order to harness support and involvement towards environmental protection. With the passing years, ESO has proven its credibility through its unwavering dedication to the protection of the Omani environment which undoubtedly pushed the government, the media, businesses and the public at large to trust its professionalism and capabilities. ESO constantly receives enquiries from the media, students and companies to express its opinion and evaluate pressing environmental issues. Its press releases are easily published in the local newspapers covering its activities and providing a variety of awareness messages geared to all categories of society.

### 4- CONFERENCES/WORKSHOPS ATTENDED BY ESO

As part of its networking activities, ESO was invited to participate in several local and regional conferences, workshops and symposia in the past two years, where its representatives either contributed working papers or took part in the discussions. The list below sheds the light on some of these.

- Symposium and Workshop on Sustainable Development of Eco-Tourism and Conservation of Natural Heritage and Biosphere Reserves by MECA and UNESCO in September 2007 in Salalah.
- Sub-Regional Workshop on Youth Exchange by the UNEP ROWA in October 2007 in Bahrain.
- West Asia by the UNEP ROWA in January 2008 in Bahrain.
- Workshop on the Role of Science and Public Participation in Environmental Law by U.S. Environmental Protection Agency (EPA) in January 2008 in Muscat.

- Training on Leadership, Advocacy, and Organisational Effectiveness targeting Civil Society Organisations by the University of California in San Diego, in Egypt in March 2008. ESO candidate was selected to be among the 20 participants out of 900 applicants.
- The Smart Manufacturing Conference by the Public Establishment of Industrial Enterprises (PEIE) in November 2008.
- The 10<sup>th</sup> Global Civil Society Forum of the UNEP in February 2009 in Nairobi.
- \* The 25<sup>th</sup> Governing Council/ Global Ministerial Environment Forum of UNEP in February 2009 in Nairobi.
- Workshop on Eochealth by the American University of Beirut in April 2009 in Beirut.
- Ramsar Convention's Communication, Education, Participation and Awareness (CEPA) Workshop by the Ramsar Regional Centre for West and Central Asia in September 2009 in Iran.
- West Asia Regional Gender and Climate Change Training of Trainers by IUCN ROWA in November 2009 in Amman.

In addition to the conferences and workshops above-listed, ESO participated in a series of workshops on Management and Capacity Building organised by the Ministry of Social Development and targeting CSOs in Oman. Being an active MEPI Alumni, ESO took part in all the regional events organised by MEPI. Furthermore, ESO was represented at all the Gulf Eco exhibitions and accompanying conferences.

### III- MEMBERSHIP UPDATE

As of December 2009, ESO had a membership base of over 550 individual members and 23 corporate members (by alphabetical order below), of which only 8 companies had an active membership (in *italic*):

- 1. Ajit Khimji Group of Companies LLC
- 2. Al Arjan Towell
- 3. Bank Muscat
- 4. Electricity Holding Company
- 5. Al Hassan Group
- 6. Haya
- 7. Muriya
- 8. National Mineral Water
- 9. Oman Cables Industry (S.A.O.G)
- 10. Oman Solar Systems
- 11. Oman Tourism Development Co SAOG (OMRAN)
- 12. OTI
- 13. PDO
- 14. Port of Sohar
- 15. Salalah Port Services
- 16. Shell Development Oman
- 17. Shell Marketing Oman Co.
- 18. Sohar Aluminium
- 19. Tabreed Oman
- 20. Al Taher Group

- 21. Towell Auto Centre
- 22. The Wave
- 23. Al Zubair Corp

In April 2008, ESO organised a members' forum to have an open discussion with its members and listen to their feedback. The members who attended expressed a rich variety of ideas from input on current projects of ESO, to suggestions for future projects, as well as potential plans for volunteer mobilisation and tapping resources for fundraising. Online evaluation forms of the event were sent to the members and their suggestions during the forum were discussed at length at a dedicated board meeting. The feedback of the board was then shared with ESO members. For two years ESO produced wall planners that illustrated the richness of Oman's biodiversity through pictures taken by its members.

ESO attempts to reach out to people all over Oman and not only in the areas where its projects are focused. Along this line, ESO organised a discussion session with ESO members in Dhofar and listened to their concerns which were then shared at board level. In the future, ESO will continue to work towards the expansion of its membership base through the recruitment of new members, while focusing on actual membership involvement in ESO activities. ESO will also seek to increase its corporate membership base to sustain its projects and secure its existence.

### IV- CONCLUSION

We degrade our environment at both its ends; as a source of raw materials by over utilising them and as a sink for our wastes by overloading the absorptive capacity of our land, oceans and atmosphere. The earth has a finite capacity to provide resources and absorb waste, and we are already exceeding that capacity. Within two centuries, we have introduced perturbations into nature of a size that it took nature billions of years to co-evolve with and adjust to.

The disruption of life support systems demonstrated through the current crises of climate change, water scarcity, food price fluctuations etc., amply reveals the dangers inherent in the neglect of the environment. A paradigm shift in perspective is needed to ensure that responsibility is taken. There is a wealth of advice available to individuals wishing to reduce their personal impact on the environment through cheap and easily achievable steps. But the transition required to reduce global human consumption to within sustainable limits involves much larger changes, at all levels and contexts of society.

In line with its mission and strategy and through its projects, ESO endeavours to increase the awareness of both young and mature audiences of the local and global environmental implications of their actions. ESO will continue to build the capacity of all stakeholders to enable them to discern and avoid environmentally destructive behaviours. This is a huge undertaking and we cannot do it alone. We can surely provide the expertise and the vision, coordinate and monitor structures to make the task easier. But we heavily rely on our members and sponsors to help deliver and implement our agenda. Enabling citizens and policy makers to exercise responsible choices is a great challenge. Together we can make it happen.