

Lessons Learnt: Oiled Wildlife Response in Asia**Ho Yei Ling**

Senior Spill Response Specialist

Oil Spill Response Limited

25 Loyang Crescent, Mailbox No. 5105,

Blk. 503, TOPS Avenue 3, Singapore 508988

ABSTRACT 299939:

In Asia, the concept of wildlife response is a novel idea. Unlike in Europe where there is various wildlife groups actively carrying out the conservation of wildlife, in Asia, wildlife conservation is not viewed with a high priority. Only a handful of wildlife organizations exist. Many of these have not had the opportunity to respond to an oiled wildlife incident. Due to the limited availability of regional resources in Asia to respond to wildlife impacted by oil, international assistance might be required. Since the closest available resources are located in the Oceania region, a significant delay is expected before a substantial wildlife response could be mobilized.

Oil Spill Response Limited (OSRL) collaborates with Sea Alarm Foundation, a wildlife non-governmental organization, to address issues related to oiled wildlife response. OSRL has stockpiles of wildlife response equipment in Southampton, Bahrain, Fort Lauderdale and Singapore, which can be mobilised in the event of an incident. Each stockpile consists of a combination of specialised scientific and basic equipment. However as transportation requires time, it could require several days for some equipment to arrive in remote locations.

In addition since Asia has a limited number of personnel who are trained to use this equipment, personnel will also have to be moved. One major concern is to manage the time of arrival of equipment and trained wildlife responders in-country, ensuring that they arrive at site together thus facilitating an effective and efficient response.

This paper will highlight the lessons learnt from various responses, which comprises the element of wildlife response, that OSRL was actively involved in and how these lessons have been used to enhance oiled wildlife response capability in OSRL to better serve Asia.

INTRODUCTION:

An oil spill incident may occur anywhere in the world, without warning. Although oiled wildlife incidents occur less frequently than oil spills, simply because not every oil spill impacts wildlife, wildlife response needs to be an integral part of oil spill response. Not only for its ecological impacts, but also because the image of an oiled animal tends to evoke a strong emotional response from the public and receive a great deal of attention from the media. Even though the volume of the oil spill may be small, it may attract a large amount of international attention when endangered species or wildlife habitats with conservation value are impacted.

Following the Macondo oil spill incident in the Gulf of Mexico, oil and gas companies are increasingly aware that images of oiled animals being shown repeatedly on

television or other media creates a detrimental impact to the reputation of the company. Conversely the Rena Incident in New Zealand provides an example of how a well run wildlife program can result in positive images of penguins being released after rehabilitation which is beneficial for the company's image. Both incidents highlight the importance of including the capacity to mount an effective wildlife response in the early stages when managing any oil spill incident.

The purpose of this paper is to outline the findings from three incidents that OSRL responded to, which has the element of wildlife response. This paper will also highlight the lessons learnt from these incidents, and the development of oiled wildlife response capability in OSRL to better serve the region in Asia.

INCIDENTS:

Bunga Kelana III Incident (Singapore)

a. Description of Incident

On 25th May 2010, a tanker, MT Bunga Kelana III, and a bulk carrier, MV Waily, collided in the Traffic Separation Scheme off the Singapore Straits. MT Bunga Kelana III suffered damage to one of its cargo tanks resulting in an estimated 2,500 tonnes of crude oil being spilled into the sea. The incident location was 13 kilometres south-east of Changi East.

One of Singapore's richest ecosystems, Chek Jawa was impacted during this oil spill incident. Chek Jawa is a unique natural area containing six major habitats. It is home for Singapore's precious coastal wildlife. Due to its high biodiversity, the oil spill created a detrimental impact on the lives of many species living in the inter-tidal zones on Chek Jawa.

b. Findings

Animal protection group ACRES (Animal Concerns Research and Education Society) rescued, cleaned and released affected wildlife back into the wild. This monumental effort was accomplished by volunteers that had been trained by ACRES. The National Park Board (NParks: the government body responsible for Chek Jawa) provided support to ACRES by providing the volunteers with appropriate personal protective equipment, i.e. gloves, to ensure the safety of volunteers.

Although OSRL was mobilised to assist in the oil spill clean up operations and had wildlife equipment in our Singapore stockpile, it was not mobilised. Through conversations after the incident, NParks revealed that protection of Chek Jawa was their own initiative. The Maritime Port Authority of Singapore (MPA), the lead agency for oil spill clean up operations, main priority was clearing the oil spill off the sea as there is high vessel traffic in the straits of Singapore.

c. Lessons Learnt

Raising awareness of wildlife response, and wildlife equipment being available in OSRL Singapore Base to the stakeholders, government agencies, and non-governmental organizations (NGOs) is essential to ensure that the equipment is put to good use to benefit the affected wildlife. In this incident, although the OSRL Technical Advisor did recommend the wildlife equipment to MPA and the client, the equipment was not mobilised. At that point of time of the incident, NParks was unaware about OSRL and our services. Hence, an action item from this incident was to carry out further engagement activities for government agencies in Singapore.

Bonga Incident (Nigeria)

a. Description of Incident

On 20th December 2011, during a routine operation to transfer crude oil from Bonga's floating production, storage and offloading (FPSO) vessel to an oil tanker, an oil spill occurred. The estimated amount of oil spilled was 40,000 barrels of oil. The source of the leak was an export line linking the FPSO to the tanker. It was closed and de-pressurised to halt the flow of oil. The incident at the Bonga offshore facility occurred 120 kilometres off the coast of Nigeria.

Nigeria has the third largest mangrove forest coverage in the world and extensive areas of the Niger Delta. Both areas host dense populations of birds, including the seasonal birds migrating from Europe to Nigeria. Other species of conservation value such as marsh mongoose, civets, and genets live in the rivers and water bodies in the forest zones.

b. Findings

Fifty percent of the equipment stockpiled by OSRL for general oil spill response was mobilised by the responsible party, a company in the oil and gas industry. Given the dense population of wildlife in Nigeria, the responsible party also requested OSRL to mobilize its wildlife equipment. Wildlife responders were also activated in preparation for an oiled wildlife response. However, the personnel were not able to enter Nigeria without a visa. Even though the oil company provided OSRL with a letter of invitation into Nigeria, the application process for a Nigeria visa takes a minimum of five working days to be granted by the Nigerian High Commission. Due to the delay in obtaining visas for Nigeria, OSRL's equipment arrived in-country earlier than the wildlife responders, and the wildlife equipment was essentially left unused. OSRL was demobilised from the incident even before the mobilisation of wildlife responders could be effectuated.

c. Lessons learnt

Both wildlife response equipment and personnel must be present on site for either to be fully effective. Prompt mobilization of both people and equipment is necessary to prevent a dire situation where animals may have to suffer longer than necessary. In this incident, it was fortunate that there were no reports of affected wildlife. Otherwise, delays may lead to more death of wildlife.

Rena Incident (New Zealand)

a. Description of Incident

On 5th October 2011, MV Rena ran aground on the Astrolabe Reef, 20 kilometres off the coast of Tauranga. On 6th October, the starboard tank of MV Rena was pierced, and oil slicks were first observed at sea. Salvage teams were tasked to pump out the remaining fuel oil from MV Rena's tanks to prevent any further oil spill from occurring. In total, an estimated amount of 300 tonnes of fuel oil was spilled at sea. The Astrolabe Reef is located in the Bay of Plenty which is a breeding ground for many species of aquatic animals such as dolphins, whales, penguins (in particular the blue penguins), and various seabirds. It is also a popular tourist scuba diving destination in New Zealand.

OSRL was first activated by the client to perform fluorometry operations, as dispersant application was the response strategy in the initial days. OSRL was tasked to determine the effectiveness of dispersant operations. After dispersant operations

2014 INTERNATIONAL OIL SPILL CONFERENCE

ceased, OSRL's role was to carry out shoreline assessment along the affected coastline, and provide technical advice on clean up strategies. Wildlife equipment was not mobilised from OSRL as there was existing wildlife equipment ready for deployment in New Zealand.

b. Findings

On the day of the vessel grounding incident, Maritime New Zealand (MNZ) declared a Tier 3 emergency, and the Maritime Incident Response Team was activated. Wildlife experts from Massey University headed to Tauranga to support the response team and prepare contingency plans to mitigate any risk to wildlife. The National Oiled Wildlife Response Team, led by Massey University, set up an oiled wildlife treatment facility to carry out rehabilitation of oiled animals. A total of 365 little blue penguins were cleaned and released in a staged process. Pre-emptive capture of 60 endangered New Zealand dotterels were carried out to protect them from the oil. 54 of the birds were later released after the oil was cleared from the sea. In total, 2062 dead birds were collected, of which 1367 were oiled. At the height of the response, there were 250 personnel working on wildlife response alone in various roles – 20 in the Incident Command Centre, 80 in-field carrying out recovery of oiled wildlife, and 150 in the rehabilitation facility.

c. Lessons Learnt

An early response is essential to ensure that the survival rate of animals is high. Both the Maritime Incident Response Team and The National Oiled Wildlife Team were activated on the first day of the incident. The high degree of emphasis placed on wildlife response in New Zealand was evidenced by full integration of the National Oiled Wildlife Team into the Incident Command Structure by assignment of a Wildlife Section Chief to the Incident Command Post.

The little blue penguins which were rescued, cleaned, and nursed back to health, were released in stages by the wildlife volunteers, and witnessed by the media and public. The scene of charismatic little penguins being released evoked emotional response from the public, and portrayed a good public image for the Maritime Incident Response Team. They were depicted as trying their best to not only clean up the oil spill, but take care of the wildlife as well.

RECOMMENDATIONS:

Advocacy Activities:

Raising the awareness of OSRL's oiled wildlife response capability to its members is vital to promote acceptance of wildlife response in Asia. During OSRL's 2013 Annual General Meeting (AGM) in Singapore, a temporary wildlife rehabilitation facility was setup to showcase its wildlife equipment and to explain the role that OSRL plays in terms of wildlife response. Being an AGM, attendance by representatives of oil companies was high. Therefore, the effort was successful in disseminating information promoting the importance of including a significant wildlife response within the Incident Command System when managing an oil spill incident.

OSRL also actively participates in client's table top exercises, where the OSRL technical advisor provides advice in terms of responding to the oil spill incident. Awareness regarding oiled wildlife response is discussed with the client during the table top exercise as a point of consideration during oil spill incidents.

Apart from client training activities, OSRL also works with government authorities, such as Maritime Port Authority and National Parks Board in Singapore. OSRL has also been invited to participate in National Oil Spill Exercises in the Asia region, such as Singapore, Thailand, Indonesia and India. Through participation in these National Oil Spill Exercises, OSRL is able to raise awareness of the importance of oiled wildlife response to the government authorities.

Develop responders' knowledge on oiled wildlife response

Although OSRL's responders are not trained hands-on wildlife responders, OSRL has recognised that providing our clients with wildlife equipment alone is not sufficient to launch a wildlife response. Hence, OSRL's responders are being trained to fill in the roles needed within the Incident Command Structure (ICS) to be prepared to manage a wildlife response. All OSRL responders will undergo training to be equipped with knowledge on the overview of wildlife response, the roles and responsibilities of the wildlife section in the Incident Command Centre, and the essential elements required in the selection of a wildlife rehabilitation facility.

When a client requests wildlife response equipment from OSRL, personnel will also be sent to be in-country to receive the equipment and deploy it if needed. In the event of a wildlife response, it would benefit the OSRL responder, being one of the first personnel on site, to be able to survey the oil impacted area and to select suitable locations for setting up of a holding facility for the oiled wildlife. All these initial surveys will be communicated to the trained wildlife responders when they arrive on site. The OSRL responder will then take on the role of a liaison officer between the client, the trained wildlife responders, and OSRL Exercises

OSRL aims to carry out internal annual table top and actual deployment exercises to enhance our oiled wildlife response capability. Drills ensure that our responders' knowledge is kept up to date. In such exercises, responders will be given a scenario of an oil spill, with wildlife impacted. Their deliverables for a table top exercise would be to assess the situation and provide suggestions on suitable locations for a wildlife rehabilitation facility. Actual deployment exercise will include transportation of the wildlife equipment to the selected location and setting up of the wildlife rehabilitation facility. By participating in these types of case based trainings, responders would in the end be better able to understand the challenges of equipment transportation and also after setting up the facility, be able to realise whether there are missing elements to the setup. Responders would also be able to evaluate whether the site selected is appropriate.

CONCLUSION:

For the past twenty years, the world's busiest container ports have been the Port of Hong Kong, the Port of Singapore, and the Port of Shanghai. With the ports in Asia having higher vessel traffic, there is no doubt that the risk of vessel collision, leading to an oil spill is increasing. As such, wildlife in the Asia region is also at higher risk of being impacted.

As a Tier 3 oil spill response organization, OSRL is actively engaging the oil companies, governments, and in-country Tier 2 service providers by sharing the lessons learnt from various spill responses with the goal of increasing their awareness of the need to plan for oiled wildlife response in the Asia region. It is only with the stakeholders recognising

the importance of oiled wildlife response that together, we can take proactive actions to ensure that oiled wildlife planning and preparedness becomes an integral part of oil spill response planning and preparedness in the Asian region.

REFERENCES:

IPIECA, 2004. A Guide To Oiled Wildlife Response Planning. International Petroleum Industry Environmental Conservation Association, United Kingdom.

Maritime Activity Reports, Inc., 2013. Bunga Kelana 3, Waily collide in Singapore Strait. <http://www.marinelink.com/news/singapore-collide-kelana334372.aspx> (last accessed 15.12.13).

Shell, 2013. Shell Nigeria Bonga Oil Leak. <http://www.shell.com.ng/aboutshell/media-centre/news-and-media-releases/bonga.html> (last accessed 15.12.13).

Maritime New Zealand, 2013. Response to the Rena grounding. <http://www.maritimenz.govt.nz/Environmental/Responding-to-spills-and-pollution/Past-spill-responses/Rena-response.asp> (last accessed 15.12.13).

Cedre, 2013. Rena. <http://www.cedre.fr/en/spill/rena/rena.php> (last accessed 15.12.13).