

# THE FINANCIAL IMPACTS OF BP'S RESPONSE TO THE DEEPWATER HORIZON OIL SPILL

COMPARING DAMAGE VALUATION APPROACHES & HIGHLIGHTING THE NEED FOR MORE RELIABLE ENVIRONMENTAL ACCOUNTING AND REPORTING

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## THE DEEPWATER HORIZON OIL SPILL : THE KEY POINTS

The Deepwater Horizon oil spill, also known as the Gulf of Mexico Oil Spill or the BP Oil Spill, is the largest marine oil spill in US history. It was caused by an explosion on the Deepwater Horizon offshore oil platform about 50 miles southeast of the Mississippi River delta on April 20, 2010. After a series of failed efforts to plug the leak, BP said on July 15 that it had capped the well, stopping the flow of oil into the Gulf of Mexico for the first time in 86 days. Though the rate of oil release rapidly became the subject of intense debate, the current consensus is that roughly five million barrels of oil were released by the Macondo well, with about 4.2 million barrels pouring into the waters of the Gulf of Mexico (Cleveland 2010).

Estimates of the extent of the surface oil slick vary widely (derived from data on wind / ocean current forecasts, aerial photography and satellite imagery): for instance, Skytruth<sup>1</sup> has estimated the total oil-slick footprint at 68,000 square miles.

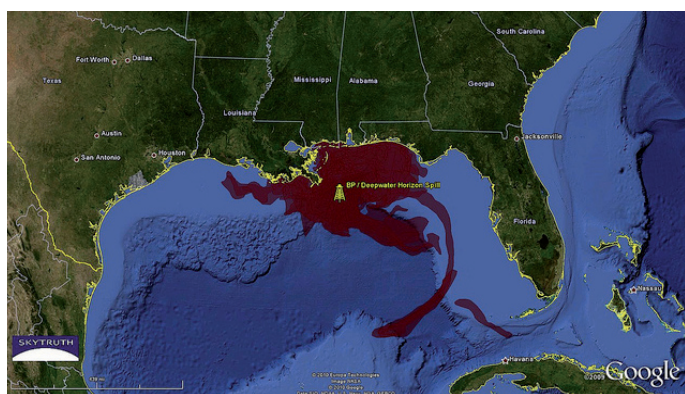


Figure 1: Cumulated oil slick from April 25 until July 16 2010 (Skytruth)

BP was the principal developer of the Macondo Prospect oil field where the accident occurred. The Deepwater Horizon, owned by Transocean Ltd., was under a contract with BP to drill an exploratory well. At the time of the explosion, BP and Transocean were in the process of closing the well in anticipation of later production, while Halliburton had recently completed cementing of casings in the well. The U.S. Government named BP as the responsible party in the incident and will apparently hold the company accountable for all cleanup costs resulting from the oil spill. Though BP has accepted responsibility for it as well as the ensuing cleanup costs, it has recently indicated that Transocean and Halliburton both deserved considerable blame for the disaster (Cleveland 2010).

## THE FINANCIAL IMPLICATIONS OF BP'S RESPONSE TO DEEPWATER HORIZON OIL SPILL

On February 1 2011, BP released its group income statement for the fourth quarter of 2010. It reflects a pre-tax charge of US\$40.9 billion related to the Deepwater Horizon oil spill, which includes US\$17.7 billion of costs effectively incurred for 2010<sup>2</sup>. All charges relating to the incident have been treated as non-operating items and were deduced from taxable income. This includes a US\$20-billion escrow account BP has agreed to establish over the next 3.5 years by the sale of US assets. The escrow account will be available to satisfy legitimate claims adjudicated by the independent Gulf Coast Claims Facility (GCCF), final judgments in litigation and litigation settlements, state and local response costs, and costs related to natural resource damages. Notably, BP has committed to fund up to \$500 million for a 10-year research programme studying the impact of (a) the Gulf of Mexico oil spill and (b) its associated response on the marine and shoreline ecosystems. The group has also agreed to fund the \$360-million cost of six berms in the Louisiana barrier islands project.

<sup>1</sup> Non-governmental organization which diffuses satellite imagery to the general public for environmental education purpose

<sup>2</sup> The remaining amounts relate to contingent liabilities for which considerable uncertainties may occur.

<b>Analysis of replacement cost profit (loss) before interest and tax and reconciliation to profit (loss) for the period</b>					
Second quarter 2009	First quarter 2010	Second quarter 2010		First half	
				2010	2009
<b>\$ million</b>					
5,046	8,292	6,244	Exploration and Production	14,536	9,366
680	729	2,075	Refining and Marketing	2,804	1,770
(583)	(328)	(70)	Other businesses and corporate	(398)	(1,344)
-	-	(32,192)	Gulf of Mexico oil spill response <sup>(a)</sup>	(32,192)	-
76	208	98	Consolidation adjustment	306	(329)
5,219	8,901	(23,845)	RC profit (loss) before interest and tax <sup>(b)</sup>	(14,944)	9,463
			Finance costs and net finance income or expense relating to pensions and other post-retirement benefits	(442)	(689)
(321)	(228)	(214)	Taxation on a replacement cost basis	4,222	(3,168)
(1,714)	(2,966)	7,188	Minority interest	(211)	(79)
(44)	(109)	(102)			
3,140	5,598	(16,973)	<b>Replacement cost profit (loss) attributable to BP shareholders</b>	<b>(11,375)</b>	<b>5,527</b>
1,874	705	(284)	Inventory holding gains (losses)	421	2,128
(629)	(224)	107	Taxation (charge) credit on inventory holding gains and losses	(117)	(708)
4,385	6,079	(17,150)	<b>Profit (loss) for the period attributable to BP shareholders</b>	<b>(11,071)</b>	<b>6,947</b>

<sup>(a)</sup> See Note 2 on pages 25 – 28 for further information on the accounting for the Gulf of Mexico oil spill response.  
<sup>(b)</sup> Replacement cost profit or loss reflects the replacement cost of supplies. For further information see page 20.

Figure 2: Financial impacts of non-operating charges linked to the BP Gulf of Mexico oil spill response for the first two quarters of 2010 (BP 2010, p.6)

Yet, the charge does not reflect any amounts relating to fines and penalties, except for those which might arise from proven strict liability under the Clean Water Act (this can reach up to US\$4,300 per barrel of oil spilled if gross negligence is found). BP has argued that it was not possible to estimate reliably either the amount or timing of such additional amounts.

In other words, the significant uncertainty regarding the total amounts the company will ultimately have to pay implies that the US\$20-billion escrow account cannot represent a liability cap. According to BP (2010), the ultimate exposure will be dependent on many factors, including the date that the flow of hydrocarbons from the MC252 well is permanently halted, the amount of oil that is ultimately discharged, the time taken in clean-up activities (undertaken on an unprecedented scale) and the number, nature and amount of claims that ultimately arise.

### THE CHALLENGE OF ASSESSING ECOLOGICAL AND SOCIO-ECONOMIC DAMAGES : THE VALUE LOSS VS. THE REPLACEMENT COST APPROACH

The ecological and economic impacts of the Deepwater Horizon oil spill will be very difficult to quantify in both space and time<sup>3</sup>.

According to Costanza et al. (2010), the spill has directly and indirectly affected at least 20 categories of valuable ecosystem services in and around the Gulf of Mexico (e.g. almost complete shutdown of the US\$2.5 billion per year Louisiana commercial fishery), including non-marketed ones such as climate regulation (sequestration of carbon by coastal marshes and open water systems), hurricane protection by coastal wetlands, and cultural, recreational, and aesthetic values.

<sup>3</sup> Quantifying damages will be highly challenging due to the lack of exhaustive socio-ecological data sets pre-dating the oil spill for affected areas.

A recently released study (Batker et al., 2010) roughly estimated the total value of these ecosystem services for the Mississippi River Delta to be in the range of US\$12-47 billion per year. If one assumes that it will be the most affected region and that there will be a 10 to 50 percent reduction in the ecosystem services provided by the Delta as a result of the oil spill, the value of lost ecosystem services would amount to \$1.2 – \$23.5 billion per year into the indefinite future (until ecological recovery), or \$34 – \$670 billion in present value (at a 3.5 percent discount rate; Costanza et al., 2010).



Figure 3 : Beach clean-up efforts in Louisiana, May 23 2010 (Deepwater Horizon Response; Flickr)

In practice however, government trustees understandably have found it difficult to rigorously measure lost ecosystem goods and services (Boyd 2010); the methodological foundations and end-results of such studies being often highly contested by stakeholders (Chevassus-au-Louis et al., 2009). As an alternative, agencies have focused on a more practical route to assessing damages: the resource replacement cost approach (i.e. goal is to replace lost economic and ecological wealth via restoration). In other words, by soliciting restoration bids and using those monetary costs as a concrete focus in damage negotiations, they avoid measuring lost social wealth (and its associated costs and uncertainties).

However, not all biophysical damages are obvious or predictable. As argued by Boyd (2010, p. 19), “(t)his raises the possibility that physical damages are under-estimated given the challenge of demonstrating causally related effects. The economic problem with the approach is that costs are not the same as benefits. A focus on restoration costs as the measure of damages can lead to both over- and under-deterrence, depending on the relationship of restoration costs to the true social cost of the physical damages”.

As soon as methods for measuring ecosystem services reach a more mature phase, plaintiffs, trustees, and courts will most likely have powerful tools in their hands for assessing marine liability damages. For now, given current scientific and economic knowledge, the scale of penalties is more likely to be resolved through political bargaining than technical calculation.

This might explain why BP has neither fully disclosed the details of ecosystem and social damages, nor the underlying calculation methodologies of its pre-tax charge of US\$40.9 billion.

Such information would have been critical to (1) assess the pertinence of the global amounts charged (i.e. are there any negative externalities<sup>4</sup> still unaccounted for?) and (2) understand the amplitude of restoration efforts to be undertaken as regards to the ecosystem assets and values which have been lost or partially / temporarily impaired. If one can easily understand the fiscal advantages of deducing from taxable income this substantial non-operating charge, BP's limited disclosure does not provide stakeholders with the full picture of the financial, environmental and social implications of the Deepwater Horizon oil spill.



Figure 4: The Deepwater Horizon offshore oil platform on fire (US Coast Guards; Wikimedia Commons)

<sup>4</sup> An externality (or transaction spillover) is a cost or benefit, not transmitted through prices, incurred by a party who did not agree to the action causing the cost or benefit. A benefit in this case is called a positive externality or external benefit, while a cost is called a negative externality or external cost ; as in the case of the BP oil spill.

## TOWARDS INCREASED REGULATION FOR OIL AND GAS ACTIVITIES WORLDWIDE ? THE NEED FOR MORE RELIABLE ENVIRONMENTAL ACCOUNTING AND REPORTING

The Deepwater Horizon oil spill is likely to result in more stringent regulation of oil and gas activities in the US and elsewhere, particularly relating to environmental, health and safety protection controls and oversight of drilling operations, as well as in terms of access to new drilling areas. As put by BP itself (2010, p. 33), “*significant uncertainties over the extent and timing of costs and liabilities relating to the incident and the changes in the regulatory and operating environment that may result from the incident have increased the risks to which the group is exposed. These uncertainties are likely to continue for a significant period. These risks have had and are expected to have a material adverse impact on the group’s business, competitive position, cash flows, prospects, liquidity, shareholder returns and/or implementation of its strategic agenda.*”

Such an acknowledgement strongly builds the case for integrating biodiversity and ecosystem services metrics into the environmental risk management procedures and information systems of all businesses operating hazardous assets.



Figure 5: Oiled brown pelican at the Fort Jackson Bird Rehabilitation Center in Louisiana, May 20 2010 (International Bird Rescue Research Center; Flickr)

Furthermore, the need for more reliable environmental accounting and reporting practices has to be emphasized if we want to become serious about corporate environmental performance. In South Africa, the drive towards integrated reporting for JSE-listed companies may just provide that opportunity (IRC 2011): putting together financial, social and environmental (monetary and non-monetary) information, side-by-side and in a meaningful format, could ensure the reliable disclosure of the integrated performance of organizations to stakeholders (Houdet 2010). To that end, the systematic disclosure of the following information in integrated annual reports should be encouraged and standardized :

1. The up-to-date status and trends of ecosystems within which the reporting entity operates: i.e. spatiotemporal information for all directly and indirectly-controlled assets (including joint-ventures) so as to ensure that stakeholders have reliable ecological reference points prior to any potential impact, accident or development; which would imply collaborating with research bodies, public institutions or NGO’s for collecting, processing and diffusing the relevant ecosystem data sets;

2. The social and ecological externalities of the reporting entity (recurring impacts or exceptional accidents), with respect to its dependencies and impacts on all ecosystem services (inclusive of climate regulation, water consumption and biodiversity) (Houdet et al., 2010) and through both quantitative non-monetary and monetary metrics (e.g. Huizing & Dekker, 1992);

3. Summarized tables for all environmental revenues, charges and liabilities, calculation methods at the basis of all material environmental transactions and explanations for the potential gaps between the latter and estimated externalities;

4. As regards to Environmental Impact Assessments, (a) the methods used to design biodiversity and ecosystem services offset measures (i.e. ecological equivalencies between what is lost and realized offsets) and (b) systematic *ex-post* assessments of the ecological efficacy of all mitigation measures undertaken, inclusive of aforementioned offsets.

Given the deteriorating image of firms regarding their Biodiversity Footprint (Houdet 2010; IFOP 2010), the goal would be nothing less than regaining stakeholder trust, especially for the mining and retailing industries.

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