

US oil spill: Bend in the road of offshore oil drilling

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BP's Gulf of Mexico oil spill disaster occurred on 20th of April and it has become a transforming incident in the history of deepwater exploration inviting all off-shore drilling countries to revisit their original plans. On 20th of April, BP's Gulf of Mexico oil well pressure tests showed an imbalance between the drill pipe choke, and kill lines running from the drill deck to the blowout preventer. Gas alarms kept piling up on top of each other more and more and the rig was hit by a power blackout, and the explosion came soon after.

The original estimate of the oil leak was about 1,000 barrels per day. Federal authorities later on estimated BP's oil well leaking between 12,000 and 24,000 barrels a day. Accordingly since the spill began roughly 0.55 to 1.16 million barrels of oil have leaked into the Gulf. Scientists now say the blown-out well could have been spewing as much as 47,000 barrels of crude a day before a cut-and-cap maneuver started capturing some of the flow, meaning more than 2.36 million barrels may have leaked into the Gulf of Mexico since the start of the disaster in April. This amount of is about 10 times more than the Exxon Valdez disaster occurred on March 24, 1989, which spilled 0.260 million barrels.

Since the explosion the BP engineers appear to be trying anything people can think of to stop the leak. BP started pumping heavy mud into the leaking Gulf of Mexico well and hoped the mud and concrete could overpower the steady stream of oil. The device that was supposed to shut off the flow of oil failed. The containment box plan of BP, never before tried at such depths, was designed next, to siphon up to 85 percent of the leaking oil to a tanker at the surface. It had taken about two weeks to build the box and three days to cart it 50 miles out and slowly lower it to the well. All together BP took 1 1/2 months to place the containment box over the busted well. The cap has been siphoning an increasing amount of oil since then and it funneled about 10,000 barrels a day to a tanker on the surface, up from about 6,000 barrels initially. BP is drilling a relief well as well which is considered a permanent fix. A relief well to stop the oil could take three months to drill and it will not be completed until August.

A steady stream of pollution from offshore rigs causes a wide range of health and reproductive problems for fish and other marine life. Offshore drilling activities destroy reefs and coastal wetlands. The spill, which is estimated to be more than 200 km long and 110 km wide, will impact the coastlines of Louisiana, Alabama, Mississippi, and Florida, and threaten hundreds of species in the Gulf of Mexico, including endangered and rare species. The timing of BP's oil spill was particularly devastating to the Gulf ecosystem because it is peak spawning and nesting season for many species of fish, birds, turtles and marine mammals. Many species remain in long-established breeding areas during this time, some of which are in the direct path of the oil spill. As the oil slick spreads, and pollution travels up the food chain, several important and endangered species will be at risk. The findings suggest that oil spills can have an impact on the environment even decades later.

The Government of Sri Lanka is currently exploring petroleum resources in the territorial waters within Sri Lanka's Exclusive Economic Zone. According to experts in charge of the exploration, the estimated deposit in the offshore of the Mannar basin is roughly one billion barrels. This will be sufficient for Sri Lanka's needs for about 30 years. However, if demand keeps rising at present levels, then the deposit will only be sufficient for 13 years. Given the current global consumption of oil, deposits in Sri Lankan seas will only be sufficient to meet the global oil demand for a mere ten days.

Offshore oil exploration is complex and is over ten times costly than onshore exploration. In onshore oil exploration a small oil field could be commercially viable but offshore this may not be possible. Massive investment is required for oil exploration, thus, the government was left with no choice but to have international oil companies invest in this venture. This results in the ownership of the oil being divided between the government and the companies even though the oil is rightfully ours. After the 2D Seismic survey government decided to open bidding for six out of the eight oil exploration blocks in the offshore of the Southern Mannar basin.

Cairn Lanka, which is a wholly owned subsidiary of Cairn India, was selected after the bidding process for exploring oil and gas in the Mannar Basin. Cairn India Limited is a spin-off of Cairn Energy plc for production interests in Western and Eastern India in 2006. Cairn Energy plc was founded in 1981 in Scotland and had revenue of \$233.9 million in 2009. Cairn India, which currently produces eight percent of its country's crude oil requirements, has working interests in 13 fields in India. It conducts 3D deep and ultra deep sea seismic studies in the Mannar Basin covering approximately 3000 km² in water depths of 200 m to 1.8 km. Cairn Lanka has committed an initial investment of US\$ 110 million for the project. The work program includes proposals to acquire 5000 km of 2D, 1000 km² of 3D seismic and drill three wells in the first three years, of the eight year exploration period.

BP plc which had to face the Gulf of Mexico oil spill disaster is a British global energy company which is the third largest energy company and the fourth largest company in the world. BP which was founded in 1909 as the Anglo-Persian Oil Company became the British Petroleum Company in 1954 and had revenue of US \$246.1 billion in 2009 implying it is 1000 times larger than Cairn Energy plc. BP says the cost of the company's response to the oil spill in the Gulf of Mexico has reached about \$1.25 billion. Based on the maximum amount of oil possibly spilled to date, that would translate to a potential civil fine for simple discharge alone of \$2.8 billion. If BP were found to have committed gross negligence or willful misconduct, the civil fine could be up to \$4,300 per barrel, or up to \$11.1 billion. It is worth exploring what will be the response of Cairn Lanka if such a disaster happens in Sri Lankan waters.

There was a campaign against offshore drilling in America during the last 2 decades. In 1990 President George H.W. Bush placed a 10-year executive blanket moratorium on all new leasing or preleasing activity in offshore areas. President Clinton in 1998 extended the 1990 offshore drilling moratorium until 2012, and announces a permanent drilling ban within 12 marine sanctuaries. President Obama's 2010 March announcement however to open Eastern coastal areas to offshore oil drilling was a shock to many. He may have to reverse his decision after the Gulf of Mexico oil spill.

There is a worldwide trend to protect sensitive ecosystems from oil pollution and promote maximum conservation to curb dependence on all fossil fuels. Global oil production is peaking right about now. Everyone must get ready for sustainable alternatives to survive oil scarcity. It's time for revisiting offshore oil drilling as a form of fossil fuel combustion. It's time to protect the environment and stop giving out more corporate welfare to the polluting energy companies. It's time to assess the possible impact on the Sri Lanka coastal belt civilization if such an accident occurs in the Sri Lankan waters. This incident should be considered as a transforming incident in the history of deepwater exploration and it's time for Sri Lanka to revisit its original plans of off-shore oil exploration.

World's largest oil spills

Name	Location	Date	Size (million barrels per day)
Gulf War oil spill	Persian Gulf	January 21, 1991	10–11
Ixtoc I oil well	Gulf of Mexico	June 3, 1979–March 23, 1980	3.3–3.5
Atlantic Empress	Trinidad and Tobago J	July 19, 1979	2.1
Fergana Valley	Uzbekistan	March 2, 1992	2.1
Nowruz oil field	Persian Gulf	February 1983	1.9
ABT Summer	Angola	1991	1.9
Castillo de Bellver	South Africa	August 6, 1983	1.8
Amoco Cadiz Brittany,	France	March 16, 1978	1.6
Amoco Haven tanker	Mediterranean Sea	1991	1.0