

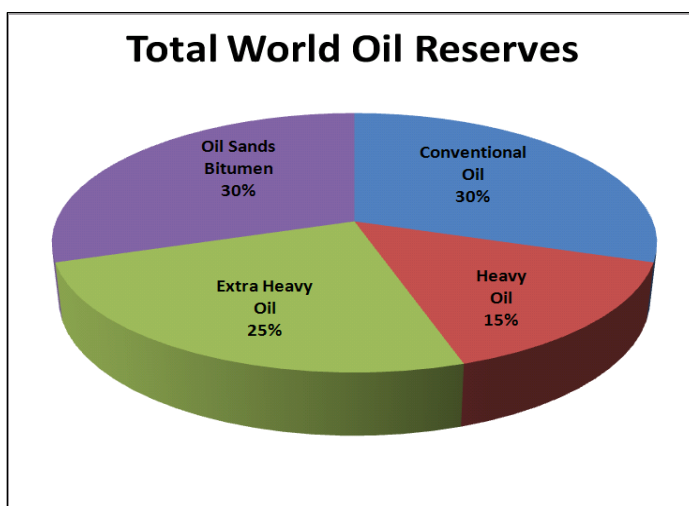


HSE ALERT # 169

FOSSIL FUEL & ENVIRONMENTAL IMPACTS

Fossil fuel reserves are diminishing rapidly across the world, intensifying the stress on existing reserves day-by-day due to increased demand. Not only that, fossil fuels, presently contributing to 80% of world primary energy, are inflicting enormous impacts on environment.

Environmental impacts: - The present energy situation, led by fossil fuels, has three major concerns—depletion of resources, environmental impacts and security of energy supply. Environmental impacts of fossil fuel are coupled to a number of naturally irreversible factors that are detrimental both on local and global scale.



a) The increase of green house effect; Global warming; Climate Change: Carbon dioxide (CO₂) is a "greenhouse gas," trapping heat in the lowest part of the earth's atmosphere. This contributes to "global warming" - the average temperature of the earth slowly increases, affecting ecosystems across the globe. Climate change is responsible for huge economical consequences.

b) The rise in sea levels: Tide lines worldwide are raising by about 2 millimeters a year, compared to 1 millimeter a year in 1850. First, accelerated sea-level rise seems to be one of the more "certain" consequences of global climate change with a "worst scenario" increase of 95 cm by the end of 2100.

c) The acidic pollution: Acid rain has been observed throughout the world, from the polar ice caps to the tropical rainforests of Asia, Africa and South America. Within just a single generation, acid rain has grown from being a local and regional nuisance to a major global problem.

d) Health implications: According to World Health Organization (WHO) as many as 160,000 people die each year from the side effects of climate change and the numbers could almost double by 2020.

“There is an urgent need for a quicker switch over of energy systems from conventional to renewable that are sustainable and can meet the present and projected world energy demand. Within the context of Pakistan solar and wind power are two of the most promising renewable.”