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Disaster Management Policy Development and Engineering Economics: An Analysis of Game-Changing Impact of COVID 19 on Oil-Power Industry, Environment, and Economy

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Abstract

Dynamics of power are linked with sustainable development goals. These goals are dependent on the resources and management of development economics. The oil industry is the backbone of the economic profile of any country which is directly connected with power generation, industrialization, and the environment as well. In this study, a comparative performance analysis of five major oil-dependent economies has been conducted. The performance of these countries has been analyzed based on economics and the environment during pandemics. A war to piece relationship has also been discussed based on the oil industry. Furthermore, management policy has also been recommended to maintain oil pricing and economic management for sustainable development goals. This study will help to develop a comprehensive disaster management policy for sustainable development and engineering economics.

Keywords. Disaster; Management; Oil Industry; Environment; OPEC; Engineering Economics

1. Introduction

A disaster is an event that occurs, suddenly causing damage to the environment, human lives, human property, or anything which is associated with the minimum and the daily operations of the human lives cannot be hindered and these disasters includes floods, disease, earthquakes, tsunamis, lives of the human being or the human society. Management of these disasters is necessary so that the damages caused by disasters are kept to a fire (D. Alexander, 2018).

Disasters are not just events that just occur and ended. When a disaster occurs, it shakes the whole civilization in an instantaneous, history has been summed up in Figure 1. In the 14th century because of the bubonic plague (Black Plague) pandemic, the population of the world was decreased and 50% almost in European countries (Haensch et al., 2010). Many authors and philosophers have written in their books, that big civilization (The Mayans, The Minoans, Old Egyptian Empire, and Great Romans) they were not finished by their enemies but the disaster such as floods, famines, earthquakes, tsunamis (Coppola, 2010)

An overall dry season in the eighth and ninth hundred of years, brought about by shifts in the yearly rainstorm and bringing about mass harvest disappointment and ensuing starvation, were presently accepted to have been behind the fall of both the Mayan realm in Mexico and the Tang

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administration in China. The disaster that occurs in the 21st century the December 26, 2004, tremor and tidal wave (more than 230,000 deaths), the 2005 Kashmir seismic tremor (80,000 deaths), the 2008 Sichuan quake in China (68,000 deaths), the 2008 Twister Nargis (135,000 deaths), the 2010 Haiti tremor (maybe the same number of as 200,000 deaths), and the 2011 Incredible East Japan Seismic tremor (16,000 deaths) may appear to be bizarre. But if compare to these disasters with the event that occurs in history, they were not even close to those monstrous disasters (Ali et al., 2020; Science, 2020). There are different types of hazards such as natural or man-made. As a member of this society, one should be able to fight with all types of difficulties, risks that may have unlimited boundaries (Beck & society, 1996). These events have no direct effect on our individuals, so there is a chance to reduce the risk of disaster (D. E. Alexander, 1995). Coronavirus is also known as COVID-19. This disease is the center of attention for the whole world right now. Every country and every field are affected by the COVID-19. The rise of the novel coronavirus disease (COVID-19), related to the SARS-CoV-2 virus that was devised in the Chinese city of Wuhan in late 2019 (Dhama et al., 2020; Hao, Shah, Nawaz, Asad, et al., 2020; Yan et al., 2020). The COVID-19 is not the same as those of the previous pandemics, such as in the year 2002-2003 when Severe Acute Respiratory Syndrome (SARS) broke out, and also in ways of spreading this pandemic is not the same as the Spanish Flu pandemic in 1919 (Hao, Shah, Nawaz, Nawazc, & Noman, 2020; Lee et al., 2003). The new COVID-19 is very dangerous, and it is also affecting the production and supply-demand all overall the world. It is causing a shortage of food supply (Albulescu, Demirer, Raheem, & Tiwari, 2019; Emanuel et al., 2020). COVID-19 is also affecting the stock markets, economy, and financial markets (C. J. a. p. a. Albulescu, 2020)..

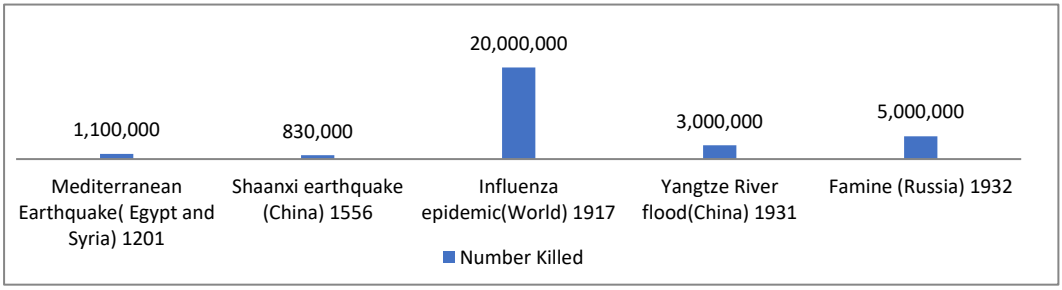


Figure 1. **Historic Data about Notable Disasters**

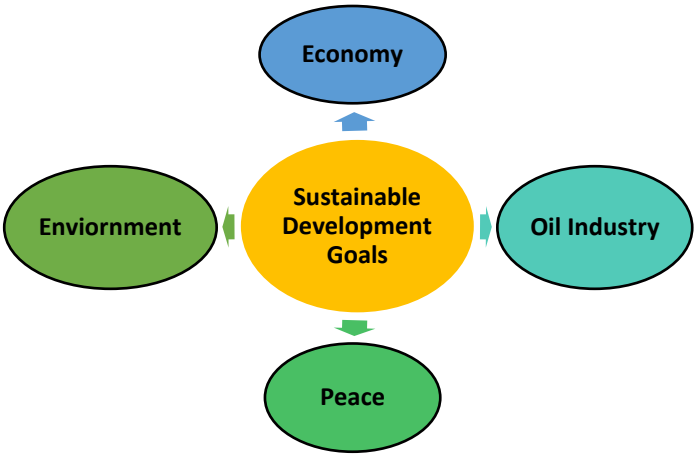


Figure 2. **Sustainable Development Related to Oil Industry**

The first case was found on the 1st December 2019 who had the symptoms and the report was written by the consortium of Chinese medical experts who were inspecting of the Wuhan city of China, which is now also known as Wuhan Coronavirus and this report was published by the peer viewed journal the Lancet (Chan et al., 2020). In the same month, 8th to 18th December seven more patients were registered who had the same symptoms as the previous person and two patients were from the Huanan Seafood Wholesale Market of Wuhan (Deng & Peng, 2020; Hao, Shah, Nawazb, Barkat, &

Souhail, 2020). From the report, the Municipal Health and Health commission formed a team and started searching concerning, the Chinese seafood city where they find twenty-seven persons with the same symptoms and seven of them were in critical condition but the other twenty were in stable condition (Gralinski & Menachery, 2020; Sansa, 2020).

On 31th December an ophthalmologist at Wuhan Central Hospital, texted eight of his colleagues, that he has found a new enigmatic virus (SARS), it is the same virus which was caused of 349 person death in China from 2002-2003 (INN, 2020a; Nawaz, Su, Din, et al., 2020; Yang et al., 2020). 41 more cases were found positive and admitted to the hospital on 2nd January 2020 and most of them have these diseases of diabetes and cardiovascular disease (Huang et al., 2020; Zhang et al., 2020). After only 7 days on 7th January 2020, China discovers a new deadly virus which is named as COVID-19. The new unknown virus was spreading rapidly in the Wuhan area and they found the seventh type of Coronavirus (Chen et al., 2020; Schwartz & Graham, 2020). The virus is spreading rapidly in other countries; the United States, Asia, and Thailand were informing about the Coronavirus cases (Munster, Koopmans, van Doremalen, van Riel, & de Wit, 2020; Nawaz, Su, et al., 2020a; Organization, 2020). Chinese researchers worked very hard to find about the virus and after a lot of search work on it. The WHO declared that this virus has the capability of transferring from one person to another person. In the last days of the first month on 23rd January, Wuhan and its 12 million people were quarantined because the virus was not slowing down. The new cases of coronavirus were 10,000 and 213 persons died till 30th January, the WHO decided to confirm that it is a very dangerous disease, and it is a global health emergency. By the month of 1st February, 23 countries other than China had reported cases of individuals carrying the virus (Nawaz, Su, et al., 2020b; Peeri et al., 2020; Shigemura et al., 2020). Italy informed its first case on the date of 31st January the two tourists from China were tested positive. The first death outside of China occurred on the 2nd February in the Philippines, the circle was going on, the next death on 13th February in Japan and the first death in Europe happened in France on the 15th of February. On the cruise of Diamond Princess, 175 people were tested positive for COVID_19 by the Japanese health ministry. The first time after January 2020 the case numbers were less than from 2000 in China on 18 February (Surveillances, 2020). The first death in Italy on the 29th February, South Korea informed the numbers of cases were increasing on the daily basis and almost all countries of Asia North Macedonia, Greece, The Netherlands, Denmark, Northern Ireland, Wales, and Lithuania reported their first case (price, 2020). In March, more than 10,000 persons were tested positive outside of China and all continents were infected by the COVID-19 (Wang et al., 2020). The COVID-19 spread most rapidly in Untied States, only in it the month of April 720,630 cases were recorded and people death tolls to 37,202 (Yilmazkuday, 2020). In the month of march U.S government advised all the citizens to stay at home because of COVID-19 and as a result there was a drop in economic activity (Blair, Campbell, & Mixon, 2017). By the month of June, 27 COVID-19 affecting 213 countries in whole world and the total cases were 41,154,945 (new cases 130,214) and total deaths tolls to 1,131,193 (new deaths 2,345). Although recovered cases were also rising 30,691,645 (worldometer, 2020a).

COVID-19 affected the price of fuel which is directly linked with the harmful material CO2. Global warming is caused by Carbon Emission, Carbon emission is the release of carbon into the atmosphere. To talk about carbon emissions is simply to talk about greenhouse gas emissions, the main contributors to climate change.

A study showed that a lot of pollution was witnessed until 2019 (He, Liu, & Salvo, 2019; Nawaz, Waqar, Shah, Sajid, & Khalid, 2019). China after one month of lockdown with complete shutdown resulting in no traffic whatsoever and closure of industries which contributed to a lot of China's pollution statistics. The air became clean and almost the cases rate of children with asthma is reduced to 17% to 24% (Morgan et al., 2004). China is also one of the largest industrial countries in lockdown CO2 drop down up to 25% (Nawaz et al., 2019; Zheng et al., 2020). We have to think differently because when this situation is over everything will come back and emission level and greenhouse effect increased again. According to reports, people living in industrial areas have more medical expenses (chest infection, cough, asthma) than the people living in non- industrial areas (Hodgson et al., 2004). Weather is also a factor which increased COVID cases. To control this pandemic, the whole world implemented the lockdown and all transport, offices, educational institutes were closed and there was a huge impact on the environment (Nicola et al., 2020). The City "New York" is the hub of the stock exchange and

there is a lot of traffic and pollution. But because of lockdown, all the transport was closed, greenhouse gases especially CO2 reduced by 55% in just New York City and clean air is also improved by 5-10%. Additionally, the ozone layer is healing itself after 33 year with the outcome of COVID-19 (Tahir & Batool, 2020). Because of COVID-19 global GDP is down up to 2.2–4.8 percent in 2020 and overall loose of $9 trillion (RHS, 2020). The economic condition is analyzed by the death ratio like in 1918 epidemic reaching 500 billion USD a year or about 0.6% of global GDP (Gössling, Scott, & Hall, 2020). In this pandemic situation small countries are suffering more (1.6%) as compared to superior countries (0.4%), because of having fewer resources to face the pandemic compared to the economically steady countries.

This paper directs the study about COVID-19 effect on the fuel industry. In the last 12 years, the fuel industry has its third major collapse. After the first two shocks, the fuel industry comes to its normal condition after some time. But this time it's different, the whole world is facing the same crisis, and the oil demand is drop-down to an unimaginable level.

2. Background

Today, prices are touching the lowest peaks of 30 years and accelerating societal pressure, executives are sense that change is inevitable (Company, 2020). The top five oil-generating countries are the United States (the US is top of list producing the oil in 2018, improved 15.6 million b/d in 2017 to 17.8 million b/d in 2018.), Saudi Arabia (In 2017 the production is 12 million b/d and in 2018 it reaches to 12.4 million b/d. It is the only country to reach in organization of the Petroleum Exporting Countries (OPEC) to make this list), Russia (Russia is also increasing it production per year 11.2 million b/d in 2017 and 11.4 million b/d in 2018), Canada (It has increased its production to 5.27 million b/d in 2018 than last year 4.96 million b/d) China (The production in 2016 is 4.86 million b/d and reduced 4.77 million b/d in 2017 but China boosted its production to 4.81 million b/d) (360, 2020). The COVID-19 is spreading very rapidly; there was a huge downfall in the business by March 2020. Asian stock market is dipping and also the oil prices are going down very fast but the Chinese government is ready to spend 171 billion dollars to supports its economy but the disease is spreading drastically in the Wuhan, more than 80,000 people were infected and 2000 people were died by the date of 2nd March 2020 (Elmousalami & Hassanien, 2020). The major downfall occurred on 20 April 2020 when the COVID-19 was out of control all over the world (C. J. A. a. S. Albulescu, 2020; S. Zafar, Ahmad, & Khan, 2016). The oil demand was decreased on large scale in just one day and the price of oil was depleted to negative after a long time. The reason behind the downfall of fuel price was the massive addition of patients of COVID-19 in United States (2,552,956 infected cases and 127,640 deaths), Europe: 2,365,834 cases; the five countries which reported most were cases were Russia (6,139,94), United Kingdom (3,079,80), Spain (2,47486), Italy (2,39 7,06) and Germany (1,92 556), Asia (2,123,332 infected cases and 53,057 deaths) according to WHO (June, 27 2020). But on 20 April and 21 April the oil prices fallen down to minimum because there was no use of fuel in the whole world, the production plants were closed, tourism point were closed, all kind of transportation (railways, airways road trips and ships) were closed. Fuel is one of most used things is modern world but with the spread of COVID-19 all over the world is in quarantine and usage of fuel is very low, the countries which produce the fuel are in big crises because of huge downfall in the prices of fuel and crude oil. After the spread of COVID-19 China is in total lockdown everything in china is closed transportation, office, tourism, construction sites, and because of that there will be less demand for oil, and then after a few days the oil demand will fall more rapidly thus prices of oil will also fall. As this situation is going, the Organization of the Petroleum Exporting Countries (OPEC) has suggested to oil producers to slow down the production of the oil by the addition of 1.5Mn barrels. But few countries didn't follow the parameter of OPEC and produced the same quantity of oil. Oil market price is decreasing rapidly and there is a war between Russia and Saudi Arabia. Although the oil demand is reducing rapidly Saudi Arabia increased the production of crude oil. In one single day, the crude oil price plunges by more than 20% with the increase of cases in Europe and North America, the Energy Information Agency (EIA) reduces the demand for oil consumption. Because of this, there is a reduction in industrial products such as perfumes, dyes shampoos, and conditioners which depend on the refine oil. The price of Brent and WTI is 38.03% and 40.50% and the Price per 1 Liter $0.26 barrel on June 26th, 2020(INN, 2020b). The manufacturing is not only stopped in china but also in European and German countries for the last 5 months. The industrial production was less even more noticeable by the

month of the march it fell by 2.9% and 3.8%. The virus is continuously growing, and fuel prices are going down and OPEC and Russia are in a war of prices. In the end, it will turn into the exact opposite in the future the investor will suffer more, the fuel demand will be low, and the price will rise faster than the present time. The demand and import of crude oil are falling day by day, right now it is 13.4%, the worldwide economy is unstable, and it will stable at a slower pace. This study is based on the effect of the disaster on the price of fuel and how much COVID-19 will cause the fuel industry all over the world.

3. Materials & Methods

Disaster is a term which is explained by the United Nation, that is dangerous and harmful for human society, in which it embroils the many other things such as human being, financial, economic or nature impact and disaster, in other words, make helpless people of society advantage from its assets (Birnbaum, Daily, O'Rourke, Loretti, & medicine, 2016; Physiopedia, 2020). This is where we use disaster management to tackle materials financial-economic or nature impacts, It's also a way to ready for response and also in the way we get information about the effects of minor and major failures or disappointment (Elliott, 2014; Physiopedia, 2020). According to the International Federation of Red Cross & Red Crescent Societies, the majority of the time disaster happened when a hazard impact defenseless people. Combining risks, hazards, and vulnerabilities to minimize the potential negative consequences of catastrophic risks (Physiopedia, 2020; Trivedi, 2018). The disaster management cycle is given below in Figure 3.

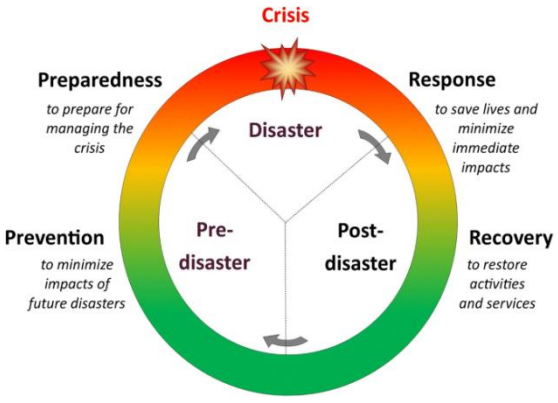


Figure 3. Disaster Management Cycle

Disaster management has a long and continuous cycle, risk assessment (first analyze the level of hazard, analyze the risk), Prevention (structural and non-structural safety), preparedness (learning and training, surge capacity, early warning), response (incident level, staff and volunteer's management, resource, giddiness management), recovery (steps were taken after a disaster to resume the normal operations, business continuity), mitigation (building codes and zoning, vulnerability analyses, public education, public awareness).

Step 1- Disaster Prevention:

The United Nations Office for Disaster Risk Reduction (UNISDR) refers disaster prevention to take part in exercises to learn about it in advance and these exercises are made to protect from disasters (Aitsi-Selmi, Egawa, Sasaki, Wannous, & Murray, 2015; Coppola, 2010; Selby & Kagawa, 2012). We cannot prevent all disasters but with the help of risk management, emergency teams, and good standard design, we can at least reduce the risk of life and property. In 2005, 168 countries agreed on a global plan which was introduced by HYOGO Framework as the global blueprint for disaster risk reduction efforts between 2005 and 2015 (Benson, Twigg, & Rossetto, 2007; Oloruntoba & Journal, 2005). Its goal was to substantially reduce disaster losses by 2015 - in lives, and in the social, economic, and environmental assets of communities and countries (Benson et al., 2007; Selby & Kagawa, 2012).

Step 2- Disaster Preparedness

As for disaster preparedness we have to take precautions and try to reduce the effect of disasters. To prepare for this kind of situation research planning and prediction are needed to secure those regions where chances of disasters are more than other areas (Cannon & environment, 1994; Coppola, 2010; Helsloot, Ruitenberg, & management, 2004; S. Z. Zafar, Siddique, Ahmad, & Khan, 2016). With the help of good disaster preparedness, we can reduce the loss of lives and return to normal circumstances within a short period. With the help of good preparedness, the impact of the disaster is reduced to maximum levels (James, 2008).

Step 3- Disaster Response / Relief:

The disaster response management's main focus is injuries, loss of life, property damage, and to provide a normal environment to citizens as it were before the disasters (Dynes, 2002; Goodchild & Glennon, 2010). The response phase is started when a hazard is started, and it is not stopped until the crisis is finished. The toughest management

considers in all five of them is a response (Blinder, 2013; Mitroff, 2000). This phase is started with little information in the hard periods with a lot of tension during the disaster (Coppola, 2010). In a time of crisis slightest mistake in taking a decision, can convert into massive devastation. All countries do activities to improve their response skills more and more, but the unexpected hazards make best planers speechless. With better knowledge of the disaster, the response quality can also be improved. Extraordinary members at every opportunity, questions, and needs of the people involved in the network, planning and requesting opportunities, and activities and procedures used (Palen et al., 2010).

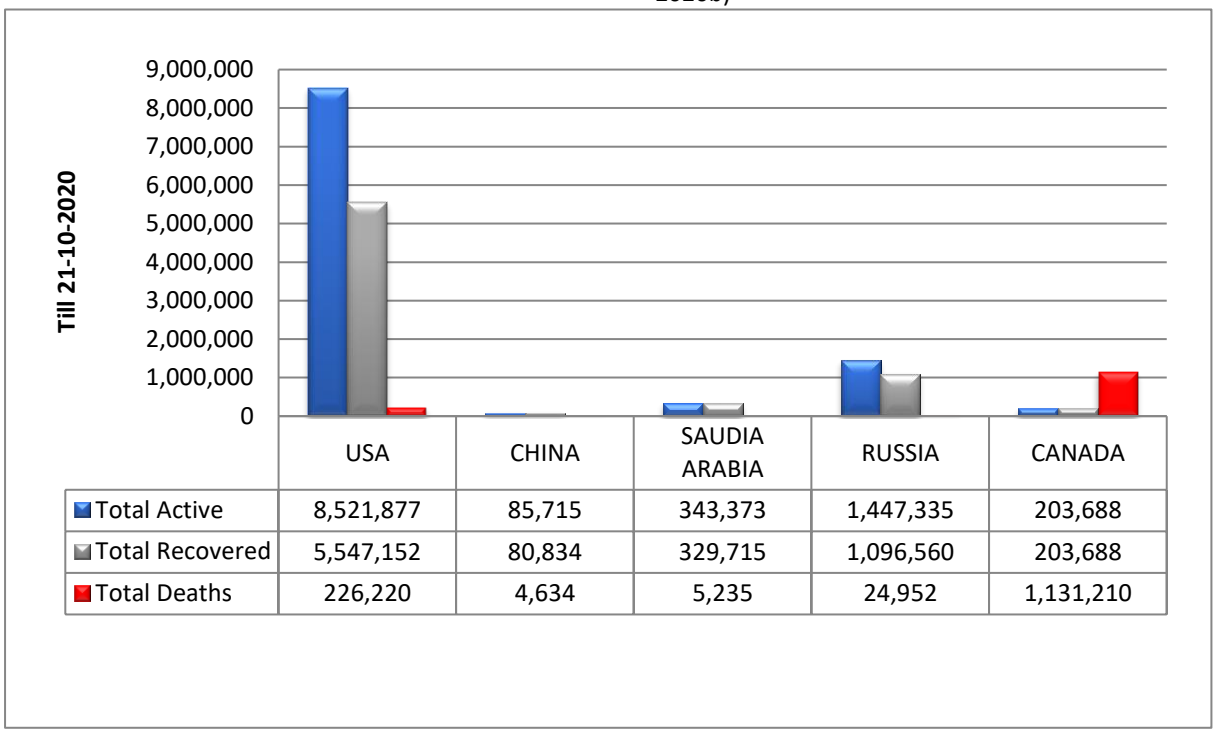
Step 4-Disaster Recovery:

The simple definition process by which communities, systems, and lives are rebuilt, repaired, and otherwise returned to a functional condition is called "recovery" (Nigg, 1995). The phase starts when the disaster ends. The recovery stage is used to return the life of common back as it is used to be by repairing and reconstruct which is lost or destroyed by the disaster(Coppola, 2010).

The emergency management system is a process in which prevention, preparedness response, and mitigation, Rehabilitation activities can begin at the same time as before a disaster, during management procedures and exercises (Peterson, Perry, & Journal, 1999; Waugh Jr & Streib, 2006). In this phase when a disaster occurs all recovery plans are executed. When a disaster occurs, it destroyed houses, lives and business affected so many people to recover these things it took a large number of funds (Olshansky, Hopkins, & Johnson, 2012). Recovery management is most costly as compared to other management cycles. Relief funds are released to the population which is hit by the disaster and other help is done if necessary (Balcik & Beamon, 2008; Luis, Dolinskaya, & Smilowitz, 2012; Oloruntoba & Journal, 2005).

4. Results and Analysis

The situation of COVID-19 is represented by a graph on five countries from Jan 2020 to Oct 2020. USA demonstrates the greatest number of COVID-19 cases and the number of deaths as compared to other countries. The general assessment of COVID-19 for each state done through a similar examination of total deaths by COVID-19, total recovered by COVID-19 and, total active cases by COVID-19 is shown in Figure 4 (Worldometer, 2020b)



	USA	CHINA	SAUDIA ARABIA	RUSSIA	CANADA
Total Active	8,521,877	85,715	343,373	1,447,335	203,688
Total Recovered	5,547,152	80,834	329,715	1,096,560	203,688
Total Deaths	226,220	4,634	5,235	24,952	1,131,210

Figure 4. Comparative Assessments on COVID-19 Impact on Human Lives

In this graph, we are talking about the top five countries that generate the most oil in the last 5 years. Saudia Arabia is on top of generating oil, Russia is on number 2, the USA is on number 3 and then there is China and Canada are shown in Figure 5 (INN, 2020a).

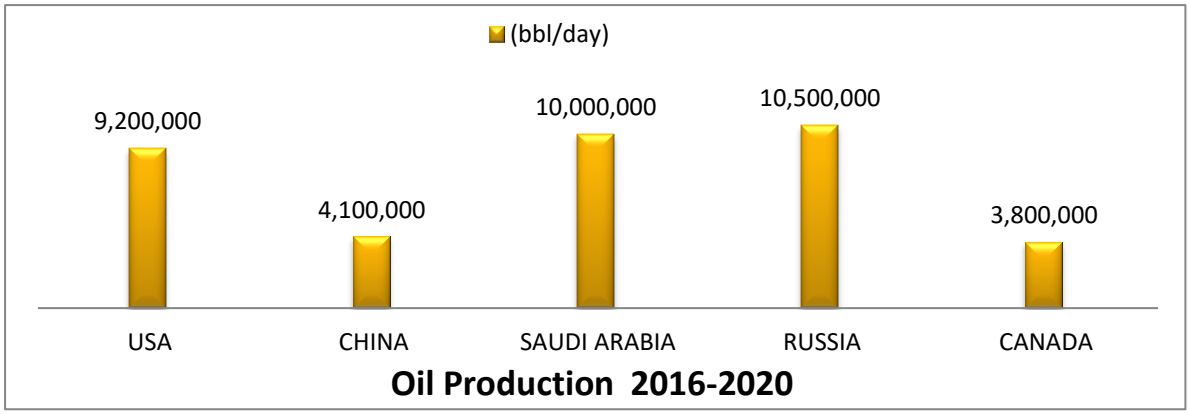


Figure 5. Oil Production countries in the last 5 years

In this graph, we have compared the oil production. In 2019 the oil production is high and the rate of oil is stable and there is no crash in the oil market. In 2020 oil production is comparatively less as compared to 2019 and the rate of oil is also low due to the outcome of COVID-19 as shown in Fig 6. (INN, 2020a).

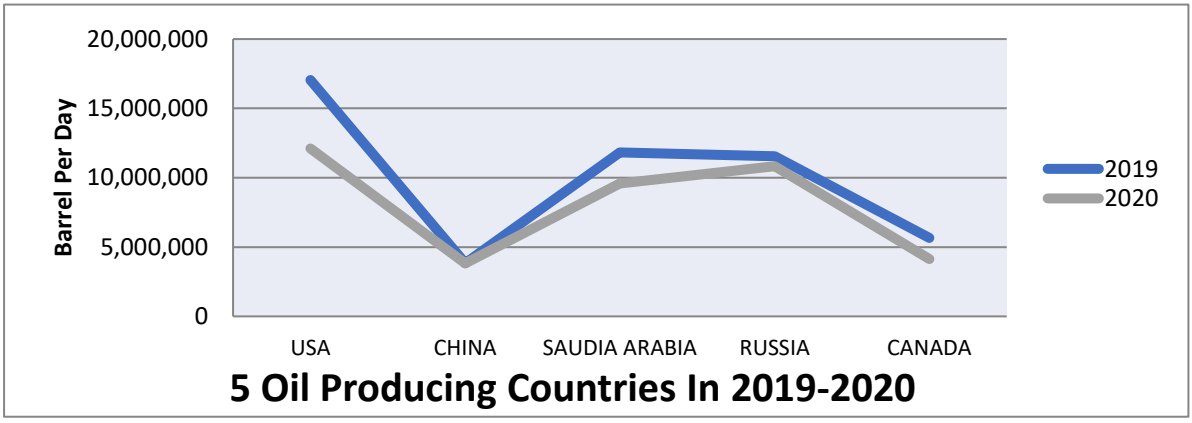


Figure 6. Comparative Analysis of Five Major Oil Producer Countries

The overall oil market rate from Jan 20- Oct 20 in $ per barrel. As you can see in the graph the rate of oil in May and April is drop-down to the lowest rate as shown in Figure 7 (price, 2020).

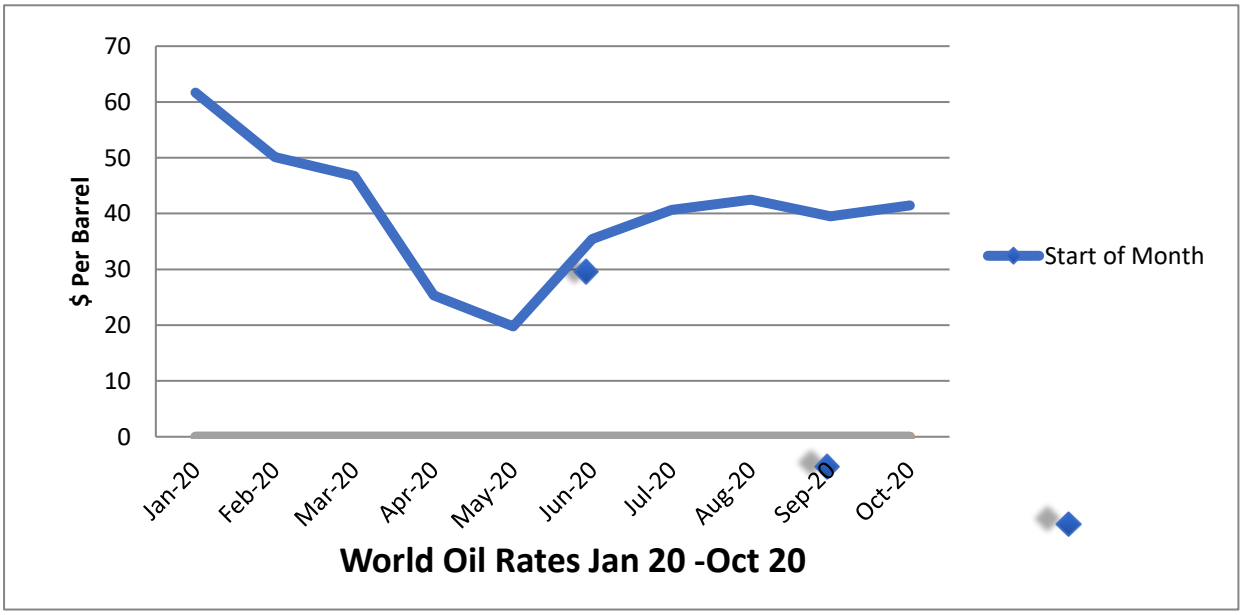


Figure 7. World Oil Rate Fluctuation During COVID-19 Scenario

In April the cases of COVID-19 rise very fast and the whole world is quarantined, and the transportation is shut down because there is no oil consumption which directly affects the price of oil. COVID-19 cases and oil sales are shown in Figures 7 and 8 (price, 2020).

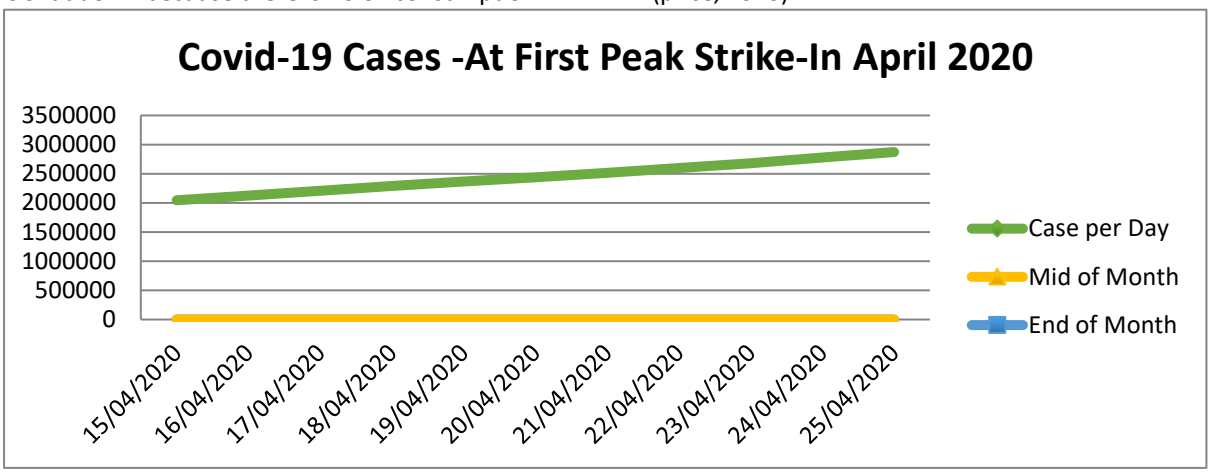


Figure 8. COVID-19 Cases Scenario at First Peak Strike

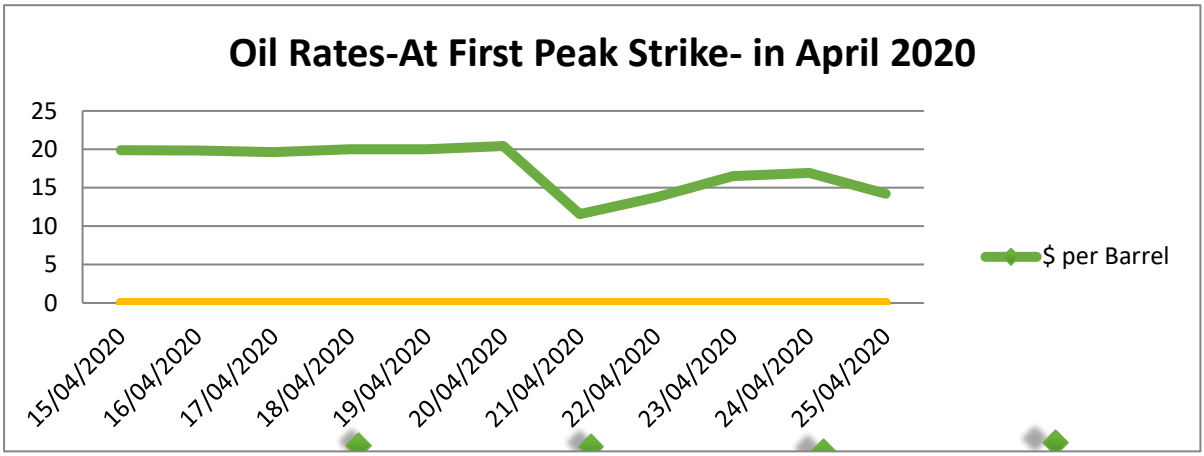


Figure 9. Oil Rates Scenario at First Peak Strike

If we see the top 5 oil-producing countries GDP. The GDP of USA is greater than in other countries. Last one of the list is Canada whose GPD is lower in these countries as shown in Fig.10 (Investopedia, 2020).

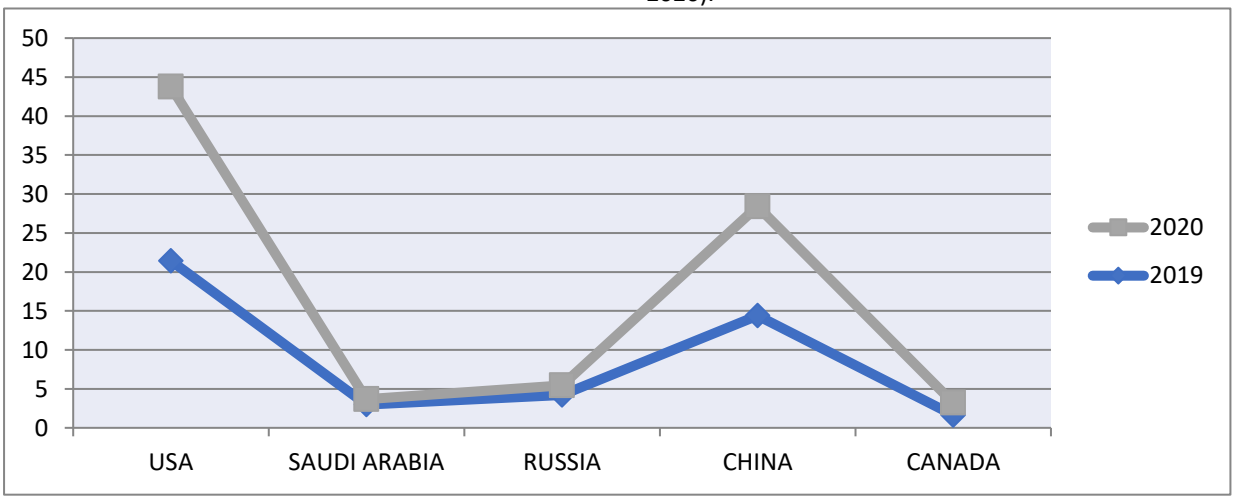


Figure 10. Economic Profile Variation of Top Five Oil Industry based Countries

The graphical representation of CO2 emissions is shown in Figure 11. The emission in 2020 is less as compared to 2019. As fuel consumption is less emission is falling. In the month April of the emission rate is the lowest (Liu et al., 2020).

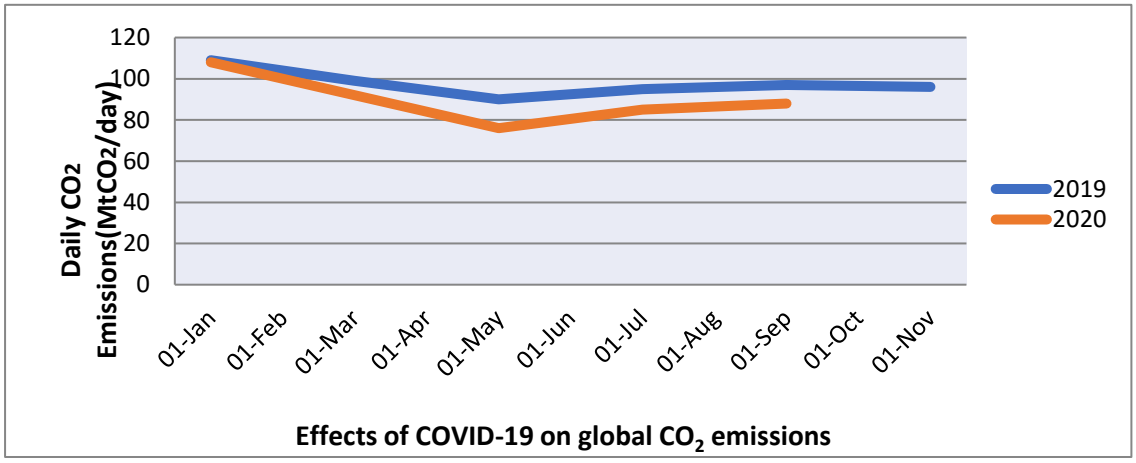


Figure 11. **COVID-19 Scenario Vs Environmental and Pollution Impact**

As you see in figure 12 the values of the effect the air pollution is decreased in 2020 with the outcome of COVID-19. In 2019 the PM10 value is 178.91 which is causing most air pollution (Arora, Bhaukhandi, & Mishra, 2020).

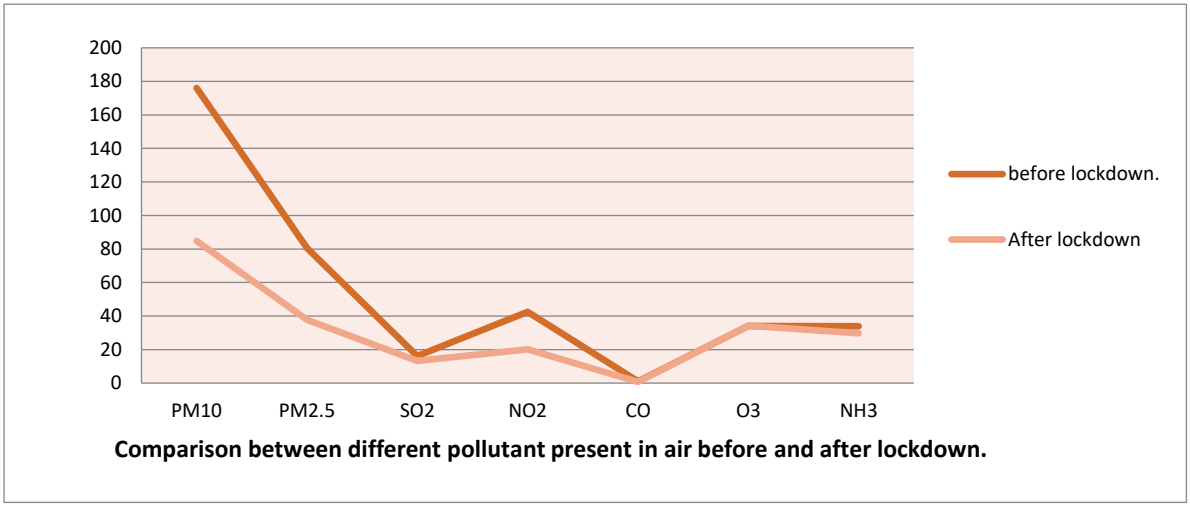


Figure 12. Environmental Impact Assessment during (COVID-19)-A Clear Indication of Less Fuel Consumption

5. Discussion

5.1. China As game Changer

This situation is not new for China, because at the time of SARS in 2002-2003, China faced the same kind of situation. This time they know how to deal with it. The Government of China steps forward and introduces the system and started checking those who were infected. When SARS broke out in 2002, there was a presence of anonymous fever that spread at that time. China is trying to take the Medical profession to next by upgrading it to online and almost 50% of consultants are already working(Puska, 2005; Zelicoff & Bellomo, 2005). Where they check the patients and also deliver medicine online. Compare to the US, the health service in China is very reliable, wide, and fast. The techniques they are using it rapid and efficient. It takes 5 to 10 minutes to do a CT scan in China, while in the US it took them almost 1 to 2 hours to do the same thing. In this situation, if you are quick enough to reach the people who are infected and isolate them, then you can control the situation easily and in a faster way. China is well aware of this kind of situation and they managed the thing similar way. China is very good at analyzing the situation, so it didn't take much time to make a strategy to build new hospitals for COVID-19 and existing hospitals to convert them for Covid-19. In China, their social

media play an important role to give awareness and also against fake news about China on the internet, where Facebook and Twitter failed miserably. The majority of China's people can't share their experience on social media because Facebook and Twitter are blocked by the Chinese government. The wisest decision made by China is they stopped all kinds of transportation and it also becomes the main reason for stopping it but other countries such as US Italy, Spain didn't make these kinds of decisions. Because of poor management, the virus spread rapidly, and in these countries.

Chinese Government makes sure that every citizen follows the rules of lockdown and didn't go outside the house. For that purpose, the Chinese government assigned Security guards on patrolling and checks every residence but none of the other countries made such abrupt decisions such as the US or any other European countries tried to follow the same methodology. In a lockdown, the Chinese government supplied food, medicine to 50 million people by their online service, because they cannot go outside from their homes. The Chinese government took another good step, they employed almost 40,000 medical staff and another volunteer who wanted to help i.e (high even high way workers, receptionists, and many people) learned how to check and also teaching visitors to detect the signs of the virus. The same situation occurred in the US by March and almost half of the million people had tested positive but still, the lockdown was not imposed.US government were only asking people to stay at home and close down bars, restaurants, and gyms(Data, 2020). Europe and the US could not do any preparation for Covid-19 like the Chinese government did and they also did not agree on the lockdown system. Italy is one of the countries that didn't follow the SOPS and did not impose lockdown. The Italian government didn't close the international border when the 2 Chinese tourists were tested positive for the COVID-19. The strategy the Chinese government used was fast and harsh but following these, China started controlling the condition in a good way. At some point, COIVD-19 was limited in China and people started recovering. The infected people in Wuhan city can travel back to the city by train but they cannot leave the city.

5.2 Saudi Arabia and Russia Conflicts

The characterizing highlights of this post-post-Cold War request are incredible force rivalry and the realignment of America's connections around the globe. Nowhere is this more apparent than the Middle East, where U.S. allies are developing diplomatic, commercial, and military relationships with the very powers with which Washington is supposed to be competing—China and Russia—and precisely at a time when so many U.S. experts, analysts, officials, and politicians are expressing a desire to retrench from the Middle East. There is an oil war between Moscow and Riyadh and also that how Russia played his played cleverly in the region. After the long going war of 30 years, a new leader around the Middle East is welcoming the Russian power. The price of oil gradually down because the US produced too much natural gas and oil which is the reason in 2016 individuals from OPEC (however Saudi Arabia) and Russia consented to restrict creation in the administration of greater costs. Both countries agreed, which was the aftereffect of a past oil battle during which the Saudis wouldn't slice creation planning to harm U.S. shale makers (it didn't), balanced out energy markets. Because of that Russia and Saudia Arabia gain the money they desire. For the Saudis, the Russians were supporting against the capricious US, where, regardless of political brokenness and polarization, there is by all account's wide concession to the need to leave the Center East. Russia, thus, got a lift in its local profile and impact by working with Saudi Arabia. Regardless of whether this was really to America's detriment is questionable, yet recognition is frequently more significant for the real world. Saudia Arabia has come to the meeting in March OPEC which includes Russia as well. The Saudi want to reduce oil production because of COVID as the purchase of oil is very low. But Russia refuses the offer and they wanted to produce more oil. But it didn't make any sense as the COVID increases the price of oil decrease more and more. One more point is that Russia is producing the oil because they want to give more damage to U.S. shale producers and snatching market share from the Saudis. The meeting ended Saudi Arabia walk away increased its production to 10 million barrels per day and they also give a discount on oil. Both of the countries didn't agree on negotiation and said they can stand on any price of oil. The only one who takes advantage of this situation is china by buying most of the cheap oil and stored it.

5.3 Environmental Impact

The environment is also facing a lot of damage for the last few decades and the ozone layer is also damaged because of it. With the outcome of COVID-19, the environment is better than before. After the lockdown is applied in March the fuel

consumption is comparatively low and nature has some space to fill free from gas pollution and other harmful material which is dangerous for the environment. All communication with traveling is closed. Gases emitted from a vehicle is dangerous not only for the environment but also for the living being. The air is clean up to 22% in May because the lockdown whole world is quarantined and people are locked in their houses.

5.4 Need for Disaster Management Plan

As we studied in this paper the fuel industry faced a lot of crises with the outcome of COVID-19. If this kind of disaster occurred in the future, we should be ready for it. So, our economy shouldn't face the damage and loss we are facing right now. The overall world lost almost 9 trillion in this pandemic situation. We should make our disaster management better so should be able to tackle all kind of crisis in the future. Organize a team of qualified members and people who want to help and make a better management plan. For example, China is the one who faces this Pandemic situation as a start but they deal with this situation very efficiently.

6. Conclusion

This study is focused on the development of a disaster management policy for the oil-based industry for a sustainable economic balance of the World. A test case of the COVID-19 scenario has tested, the flaws in the oil industry management and has created a new war scenario between Russia and Saudi Arabia. Which not only tested the World's largest economies but also showed new strategies and planning patterns to the world. Even the United States was disturbed by this new generating situation. On one end, the US was fighting with COVID-19 pandemic as a human life loss and on the other hand, this oil war has disturbed its economy. In this study, virus cases increase, fuel rates continue to fall. The economy is dropped-down because of COVID and the fuel industry is also facing the same crisis as the economic pattern of countries. Carbon emission is the cause of pollution and it reduces too much in COVID. In the starting stage of COVID, the fuel prices started varying, and emission also went down. In April the emission reached up to zero. There is one good thing as a result of low fuel consumption in lockdown air pollution level reduced and the ozone layer is also healed. The ozone layer has healed itself after 33 years. China has produced a learning trend during this pandemic situation and dealt efficiently as compared to other countries. China has implemented the lockdown strictly to control COVID at the most required instant. Even during the fuel war between Russia and Saudi Arabia, China responded wisely and stored oil as much as possible considering the future planning. A comprehensive disaster management plan is required to deal with the oil industry and oil distribution management because oil prices usually disturb the economic balance of the world.

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