

# ECOSOC

Combating the issue of depleting oil reserves

<b>Forum</b>	ECOSOC
<b>Issue:</b>	Combating the issue of depleting oil reserves
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## Introduction

Oil is one of the items that we use in our day to day life, but one of the main issues with oils is that it is scarce. Scarcity is an economic concept where there aren't enough goods and services to satisfy everyone's wants and needs. Although not all oils can be used for the same purpose. Some oils are used for cooking like olive oil or vegetable oil. While some oils are used to make something work more smoothly such as making a bike's gear and chain rotate faster or making a Rubik's cube turn faster. There is also crude oil which is used for things such as: gasoline and jet fuel. Crude oil is extracted from underground reservoirs where it is then stored in oil reserves.

Oil reserves are an estimate of the amount of crude oil that is located in a specific economic region. It also measures the potential amount of oil that could be extracted at a cost that is financially feasible at the current price of oil.

Oil reserves are classified into 3 types of oil reserves: Proven, Probable, and Possible oil and gas reserves. Proven oil reserves are the amount of oil and natural resources under a piece of land with a 90 percent or greater percentage of extraction. While Probable reserves are the amount of oil and natural resources under a piece of land with a percentage of extraction of 50 percent or greater and less than 90 percent. On the other hand, Possible oil reserves are the amount of oil and natural resources under a piece of land with an extraction percentage as low as 10 percent.

In terms of how oil financially supports people on a daily basis, it is actually found out that oil revenues in 2023 totalled up to \$4.3 trillion dollars. That is equivalent to approximately 3.8% of the revenue generated by the global economy. It was also estimated that the daily average amount of oil barrels demanded every day was approximately 101.19 million barrels.

## Definition of Key Terms

### Crude oil

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**A fossil fuel made from a mixture of hydrocarbons that are formed from the remains of animals and plants that lived millions of years ago. Crude oil is used in products such as gasoline and jet fuel.**

## Oil reserves

**Quantities of oil and gas that are already discovered and recoverable.**

## Oil depletion

**The decline in oil production of a well, oil field or geographical area.**

## Scarcity

**An Economic Concept when there are not enough goods and services to satisfy everyone's wants and needs in an economy.**

## General Overview

### Why do we need oil?

Oil could be considered as a necessity for living as it can be used in many different ways it just depends on the way that each person views how oil could be used. There are many types of oils and each type is used for a different reason. Oils are described into 3 different categories, Synthetic, Mineral and semi synthetic. Olive oil, Avocado oil, Sesame oil are all examples of cooking oils. Cooking oils can be mainly classified as synthetic oils as they are made up of synthetic compounds. On the other hand, type of oil that we also use on a daily basis is motor / engine oil. Engine / Motor oil is mainly used to make sure that the vehicle it is poured in is: in good condition, won't corrode, is clean, it will always be lubricated by the oil. These oils help make sure that the vehicle will function correctly and smoothly. Crude oil is one of the main base components that is used to make motor and engine oil because it is refined to produce a wide range of oil and petroleum products including: heating oils, gasoline, diesel, jet fuels, lubricants, asphalts, ethane, propane, butane and many other products used for their energy or chemical content.

Although we don't realize it, all the oils known to man kind play a major role in our day to day life but we still haven't realized that. If one day all the oil supplies known to man kind suddenly vanished, every human's life would get affected in a way or another depending on which type of oil they're missing. It will be easier to replace some oils with other substitutes but not all oils can be replaced with the same ease. This is because not all oils have substitutes that can easily replace them while also providing the same feeling or service. While it is hard to replace some oils, this doesn't apply for all oils. An example of this can be the replacement of gasoline which is made partly by crude oil, and how it is slowly starting to get replaced by electric and hydrogen cell cars. Even though we still do use gasoline, car manufacturers are starting to make electric-powered and hydrogen cell powered cars. A step in this direction means that oil can be preserved to make sure that it is kept to produce other products that don't have a substitute for them or to produce oils whose substitute isn't the best whether its in terms of function or performance. By finding other substitutes / alternatives of oils, this will also promote using items and substances that aren't toxic to the environment which will promote stopping the pollution of air as well as saving up the amount of oil available so that they can be stored until they are actually needed to be used due to factors such as



there are no available substitutes or that the available substitutes aren't similar / as qualitative as the original oil / product that a consumer would use.

## Why should we save oil?

**All oils are a form of fossil fuels. All fossil fuels are a form of unrenewable energy. This means that once all the oil underground has been extracted, the supply left in the reserve could be considered as their final countdown to find a more sustainable way of using different substances and chemicals that can then be used to create different forms of energy. By using different substances and chemicals to produce a cleaner form of the energy for the environment, this can help stop greenhouse gases as well as slowly start to reduce/ slow down global warming. Other than greenhouse gases, burning fuels also pollutes the air which could then lead to more toxic substances being formed and released into the air.**

## Types of renewable energy

Renewable energy is any form of energy that has a never ending source where it can supply energy. It comes in many different forms. Some examples of this can be : Solar Energy, hydro electric Energy, wind energy, geothermal energy and much more. Using renewable energy in day to day items will be very crucial to help stop pollution and greenhouse gases. Currently some manufacturers are starting to consider the factor of using renewable sources of energy while manufacturing products. An example of this can be reflected in the car manufacturing industry as some of the most known companies have started manufacturing more electric powered cars rather than producing gasoline powered cars.

## Oil overview

The first main discovery of oil was in Saudi Arabia in 1938. This was still in the early stages in discovering oil reserves and they were one of the only countries who had discovered oil reserves at the time. Due to the massive amount of oil reserves that were discovered in Saudi Arabia, they were able to start exporting it to other countries by mainly passing through the Suez Canal. Until 1956 Egypt didn't even have control of the Suez Canal as they had to sell shares of it to Britain and France due to their financial situation at the time. Britain had owned 44% of the shares while France owned 56% of the shares. In 1956 Egypt took control over the Suez Canal as their contract with Britain and France was over and they were in a better financial situation where they could manage the canal. Once more countries started finding oil reserves and exporting some of the oil obtained from these reserves, The Organisation of Petroleum Exporting Countries (OPEC) was formed. The Organisation of Petroleum Exporting Countries (OPEC) was founded in 1960 by 5 countries in Baghdad, Iraq. Eventually a few more countries joined the Organisation of Petroleum Exporting Countries (OPEC) and some countries also left throughout the years. At the start of the 1980s the price of oil significantly fell by 350% going from \$35 to \$10. As the years passed the prices of oil started to gradually increase until the price of oil suddenly became \$30 in 2003 and then \$65 in 2005 and after that it jumped to \$147.30 in 2008.

## Major Parties Involved

### Organisation of Petroleum Exporting Countries (OPEC)



**The Organisation of Petroleum Exporting Countries is an organisation made to coordinate and manage petroleum policies among their member countries in order to make sure that there are fair and stable prices for petroleum producers as well as an efficient, economic and regular supply of petroleum to consuming nations as well as a fair return on capital to those investing in the industry. The Organisation of Petroleum Exporting Countries (OPEC) was founded in 1960 by 5 countries in Baghdad, Iraq. These five countries are: The Islamic Republic of Iran, Iraq, Kuwait, The Kingdom of Saudi Arabia and Venezuela. The other member countries of the Organisation of Petroleum Exporting Countries (OPEC) are : Libya, The United Arab Emirates, Algeria, Nigeria, Gabon, Angola, Equatorial Guinea and Congo. Ecuador, Indonesia and Qatar all used to be members of the Organisation of Petroleum Exporting Countries (OPEC) but left due to different reasons. Ecuador had joined the Organisation of Petroleum Exporting Countries (OPEC) in 1973, then suspended their membership in December 1992, then they rejoined in October 2007 and withdrew from the Organisation of Petroleum Exporting Countries (OPEC) effective of the 1<sup>st</sup> of January 2020. On the other hand Indonesia had a similar situation where they joined the Organisation of Petroleum Exporting Countries (OPEC) in 1962 then they had suspended their membership in January 2009 but then reactivated it in January 2016 but they decided to suspend their membership again at the Organisation of Petroleum Exporting Countries' (OPEC's) 171<sup>st</sup> meeting on 30<sup>th</sup> of November 2016. As well as that Qatar also had a similar situation where they joined the Organisation of Petroleum Exporting Countries (OPEC) in 1961 then they terminated their membership on the 1<sup>st</sup> of January 2019.**

## Timeline of Key Events

1938 - Discovery of oil in Saudi Arabia

1956 - Suez Crisis and nationalization of the Suez Canal by Egypt (when Egypt took full control of the Suez Canal)

1960 - OPEC formed in Baghdad, Iraq

1973-74 Arab oil embargo (a cessation of oil shipments on countries that supported Israel by other Arab countries who didn't support Israel during the Yom Kippur War)

1980s - Oil glut sends the price of oil down by 350% (\$35 to \$10)

1989 - Exxon Valdez oil spill (An oil tanker called the Exxon Valdez that crashed in the Prince William sound resulting into approximately 11 million gallons of oil being spilt into the sea and the oil then killed thousand of animals and wildlife that lived near, around or in the sea)

1990 - Gulf War (When Iraq invaded Kuwait in an attempt to gain more control over the lucrative oil supply in the Middle East.



**1997 - Hydraulic fracturing (fracking) proliferates after the Mitchell Energy Company perfects the technique making it economically feasible.**

**Early 2000's - Oil prices spike. With prices for oil generally staying below \$25 a barrel, prices hit \$30 in 2003. The price of oil continues to climb above \$65 in 2005 and eventually hits a high of \$147.30 in 2008.**

**2008 - Global Financial Crisis - Just as oil prices are topping out at \$147 a barrel, the global financial crisis sends economic demand into rapid decline.**

**2010 - BP Horizon oil spill (occurred after a surge of natural gas blasted through a concrete core recently installed to seal an oil well for later use.)**

**2015 - Oil Glut. The effectiveness and explosion of oil production in the US due to advancements in hydraulic fracturing leads to a global glut in oil supplies. The US lifts oil export ban that has been in place to strategically protect domestic oil reserves.**

## **UN involvement, Relevant Resolutions, Treaties and Events**

- **Iran – Kuwait war, 29<sup>th</sup> of November 1990, (S/RES/687)**
- **COP 28 - it's aim is to “signal a hard stop to humanity’s core climate change problem - “fossil fuels and their planet burning pollution”**

## **Previous Attempts / initiatives to solve the Issue**

- **Sustainable Development Goal 7 (SDG 7) - it's main role is to ensure that there is access to clean and affordable energy**
- **Sustainable Development Goal 12 (SDG 12) - it's main role is to ensure that there are sustainable consumption and production patterns**

## **Possible Solutions**

- **A way to overcome the excessive usage of oil can be by finding other alternative energy sources that can be relied on by people in their day to day life. An example of this can be using solar energy. To convert sunlight to solar energy, solar panels are required as they take in energy and then convert it into energy using generators. The problem is that solar panels aren't the most cost efficient as they are very expensive to buy and set up.**
- **Another form of energy reliable and renewable energy is wind energy. Although this is a very reliable source of energy, its startup cost is very expensive as turbines need to be built using materials that are strong enough to resist air.**



- On the other hand, an example of a different and more cost effective source of energy is hydroelectric energy. This is where water moves a turbine and then this turbine starts to spin. Since this turbine is connected to a generator that converts the kinetic energy gained from the rotating turbine into electrical energy that can be used to power appliances.

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## Appendix or Appendices

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