

SEASON OF CREATION 1ST SEPTEMBER TO 4TH OCTOBER 2020

Fact Sheet 2-Fossil Fuels

I. What are Fossil Fuels?

Coal, crude oil and natural gas are called fossil fuels because they are formed from the fossilized, buried remains of pre-historic plants and animals that lived millions of years ago. Because of their origins, they have high carbon content. Crude oil or petroleum, literally *rock oil* in Latin is liquid fuel made up mostly of hydrocarbons. Fossil fuels have been used to generate about 80% energy for over a century.

II. Why are Fossil Fuels bad?

1. Land degradation: Fossil fuels are extracted by mining or drilling and therefore result in land degradation. Extracting them from under the earth takes a huge toll on landscapes and eco-systems. Infrastructure like wells, pipelines, access roads, facilities for processing, waste storages and waste disposal needs huge stretches of land. Often forests and whole mountain tops are scraped and blasted to take the underground coal or oil. After the extraction is over, the nutrient leached land is almost useless. Critical wild life habitat thus gets fragmented and destroyed.

2. Water Pollution: Drilling, Fracking (the worst method of extraction) and mining operations generate enormous volumes of waste water which is often laden with heavy metals, radioactive materials and other pollutants. This waste is often stored in open-air pits or underground wells, which leak or overflow into waterways and contaminate aquifers with pollutants causing cancer, birth defects, neurological damage etc. Oil spills and leaks during extraction or transport, pollute drinking water sources and jeopardize entire fresh water or ocean eco-systems. Fracking and its toxic fluids contaminate drinking water.

3. Emissions: Fossil fuels emit harmful toxic air pollutants even before they are burned e.g. benzene which can cause childhood leukemia and blood disorders and formaldehyde which is a cancer causing chemical. Mining is bad for the miners themselves because of the toxic air borne particulate matter.

III. What happens when Fossil Fuels are burned? It results in:

1. Global Warming: because carbon emissions trap heat in the atmosphere and lead to climate change.

2. Other forms of Air Pollution: They emit dangerous mercury (sulphur dioxide) into the air which results in acid rain and soot (particulate matter) in the air. Cars, trucks and boats using fossil fuels emit poisonous carbon monoxide and nitrogen oxide which produces smog and respiratory illnesses on hot days.

3. Ocean Acidification: our seas absorb a quarter of the carbon we humans emit. Due to burning of fossil fuels the ocean has become 30% more acidic. This reduces the amount of calcium carbonate in the ocean which oysters, lobsters and countless other marine organisms need to form their shells. This affects food chains and even coastal livelihoods.

IV. The Indian Scenario:

- India's electricity sector is dominated by fossil fuels in particular coal. India is now the world's third largest electricity producer.
- About 65% of the electricity consumed in India is generated by thermal power plants, 22% by hydroelectric power plants, and 3% by nuclear power plants and the rest 10% from other alternative sources like solar, wind and biomass.
- Though modern fuels like kerosene and liquefied petroleum gas (LPG) are the major sources of cooking energy in urban India, a large proportion of households still use biomass i.e. firewood, dung, crop, crop residue and coal /charcoal.
- India imports nearly 83 % of the oil it consumes, making it one of the biggest importers of oil in the world. Most of India's crude oil and cooking gas comes from Iraq and Saudi Arabia.
- Thermal power which is the largest source of power in India needs coal, gas and diesel or natural gas to run the plants.
- Maharashtra, where we have many RSCJ communities has the highest electricity rates in India i.e. Rs 8.80 per unit.

REFLECTIVE QUESTIONS/ACTIONS

1. Fr Anthony, Madan Murmu and 14 other Tribals were shot dead by the Bihar police on 19th April 1985 during a peaceful protest at Banjhi, Sahebganj in Jharkhand. All citizens have a right to protest, demonstrate, send memorandums, and sign petitions etc to the Government and to other institutions and organizations.

a) **What do you know about fossil fuels?**

b) **Who are the most impacted by the harmful effects of fossil fuels and how?**

c) **Why then are citizens killed when they go on a simple peaceful protest?**

2. Fifty-two year old Tribal Rights Activist **Sr Valsa John** (Sisters of Charity of Jesus and Mary) was brutally bludgeoned to death near Dumka in Jharkhand where she worked with the Santhal tribe, against their displacement for the purpose of coal mining. Sr Valsa had seven cases foisted against her. Hailing from Kerala she spent 15 years living with the Santhals in dire

poverty and had even succeeded in empowering the women and getting many benefits for them. Going back to Kerala for three months to be with her brother who was suffering from cancer, enabled the coal mining mafia to spread false rumors around. She was murdered on 15th November 2011. I had met Sr Valsa once at Tarumitra while making a retreat there. She had taught us how to make nutritious bamboo shoot pickle. I even ate the pickle she had made.

a)What are your personal experiences about fossil fuels? Do you have any stories or experiences to share like the one of Sr Valsa?

b) Why is this happening even today? Who gains from the situation and who loses out?

c) Why do such situations continue?

3. Despite the Damocles sword of defrocking hanging over **Fr Bismarque Dias** from St Estevam, Goa, he decided to move from priest to politician. Illegal mining and the pillage of the ecology made him take the plunge in March 2012. This social activist was a phenomenon, fighting for the rights of the poor and the marginalized. The dynamite was silenced on 5th November 2015. His dead body was discovered, washed up near a sluice gate at St Estevam, but his spirit still lives on.

a) What are your views about this priest turned politician?

b) What would Jesus say or do in such a situation?

4. Eighty-three year old Octogenarian Jesuit **Fr Stanislaus Lourdusamy**, a human rights defender who has fought for the Adivasis is presently languishing in the Jharkhand jail. He was charged for alleged links to a banned Maoist group. The priest had been documenting rights violation by state police and security forces, including the extensive use of torture.

Many other social activists fighting for the rights of the Tribals and the Dalits are in prison.

a)Do such everyday happenings disturb your peace?

b)If so, how do you handle such disturbances or lack of peace with faith, Church teachings, scripture etc. that you have learned and have been brought up on since childhood?

c)What insights do you have vis-à-vis such realities of life? What can you do personally/ as a community?

Sr Mudita Menona Sodder RSCJ

(JPIC Coordinator, Indian Province)

20th August 2020