

# Mahindra & Mahindra in South Africa

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### Introduction about coal mining

Process about coal mining:

- Extraction Process
- Transportation
- Separation process
- Usage

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#### Conclusion

Nearly 70% of the electricity generated in South Africa is produced by using coal to produce steam. It is the most abundant source of coal, and producing more harmful waste than any other source. It is not only a source of energy, but also a source of electricity. Coal should be used in a sustainable way to meet the needs for the other production, it will offset most of the disadvantages.

#### Alternatives for coal

- Solar energy
- Wind energy
- Hydro energy

#### Disadvantages of coal

- Greenhouse gas emissions
- Harmful waste emissions

#### Bibliography

1. https://www.energen.com/energy/coal/coal-mining-process/

2. https://www.energen.com/energy/coal/coal-mining-process/

3. https://www.energen.com/energy/coal/coal-mining-process/

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#### Advantages of coal mining

- Employment
- Infrastructure

#### Disadvantages of coal mining

- Landslides
- Loss of aesthetic value
- Dust and noise
- Coal mining deaths
- Pollution occurs from transportation



#### Advantages of coal

- Abundance
- Continuous, practical, reliable source of energy
- Large reserves compared to other fossil fuels

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#### Alternatives for coal

- Solar energy
- Wind energy
- Hydro energy
- Geothermal energy
- Biomass energy

#### Disadvantages of coal

- Greenhouse gas emissions
- Harmful waste emissions

#### Bibliography

1. The Case Solutions. (2020). Introduction about coal mining. Retrieved from TheCaseSolutions.com

2. The Case Solutions. (2020). Advantages of coal mining. Retrieved from TheCaseSolutions.com

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5. The Case Solutions. (2020). Conclusion. Retrieved from TheCaseSolutions.com

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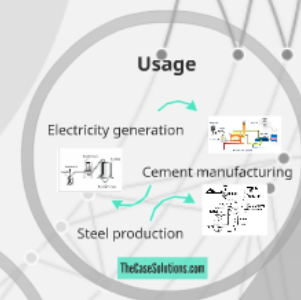
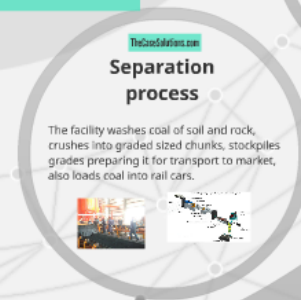
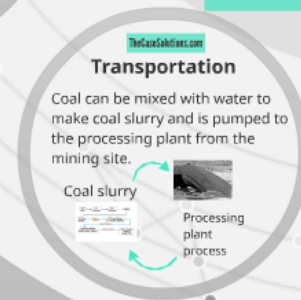


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# Extraction Process

Surface Mining



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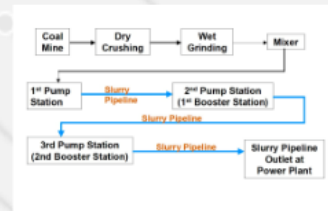
Underground mining



# Transportation

Coal can be mixed with water to make coal slurry and is pumped to the processing plant from the mining site.

Coal slurry

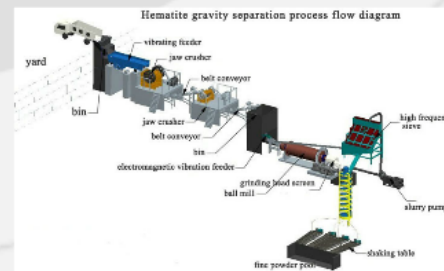


Processing  
plant  
process

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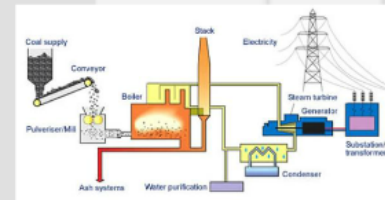
# Separation process

The facility washes coal of soil and rock, crushes into graded sized chunks, stockpiles grades preparing it for transport to market, also loads coal into rail cars.

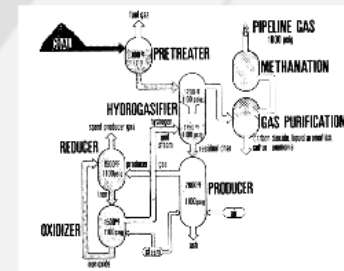


# Usage

Electricity generation



Cement manufacturing



Steel production

# Advantages of coal mining

- Employment
- Infrastructure

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## Employment

The industry employs around 41,000 people, paying out salaries worth around \$6 billion a year. This has a positive effect on the lives of many Australians. Numerous business and services that support, supply and rely on the coal industry and you can add another 111,000 Australian jobs to this figure.

## Infrastructure

The mining industries contributes hundreds of millions of dollars of developing local communities. This includes building, improving or maintaining essentials such as roads, railways, ports, etc. and more within those local communities that coal industry is a part of. All of this helps to create even more jobs outside the mining industry.



# Disadvantages of coal mining

- Landslides
- Loss of aesthetic value
- Dust and noise
- Coal mining deaths
- Pollution occurs from transportation

## Landslides

In West Bengal, India people are being displaced in huge numbers as the hollowing of the earth due to underground coal mining has made those places unsafe as the land caves in without any warning.



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## Coal mining deaths

Coal mining has resulted in thousands of deaths each year ever since man discovered coal. Coal Deaths happen not only in countries which don't have good safety regulations like China but also in developed countries like USA and New Zealand.

## Loss of aesthetic value

Surface coal mining resulted in destruction of the habitat and scenery. It leads to pollution of air and water surrounding the mines. Those burning underground are hard to find and many cannot be stopped. Fires can cause the ground to fall, their gases are dangerous to life, and breaking out to the surface can start surface fires as well.



## Dust and noise

Dust at mining operations can be caused by trucks being driven on unsealed roads, coal crushing and drill operations and wind blowing over areas. Dust levels can be controlled by spraying water on roads, stockpiles and conveyors. Noise can be controlled through the selection of equipment sound enclosures around machinery.

