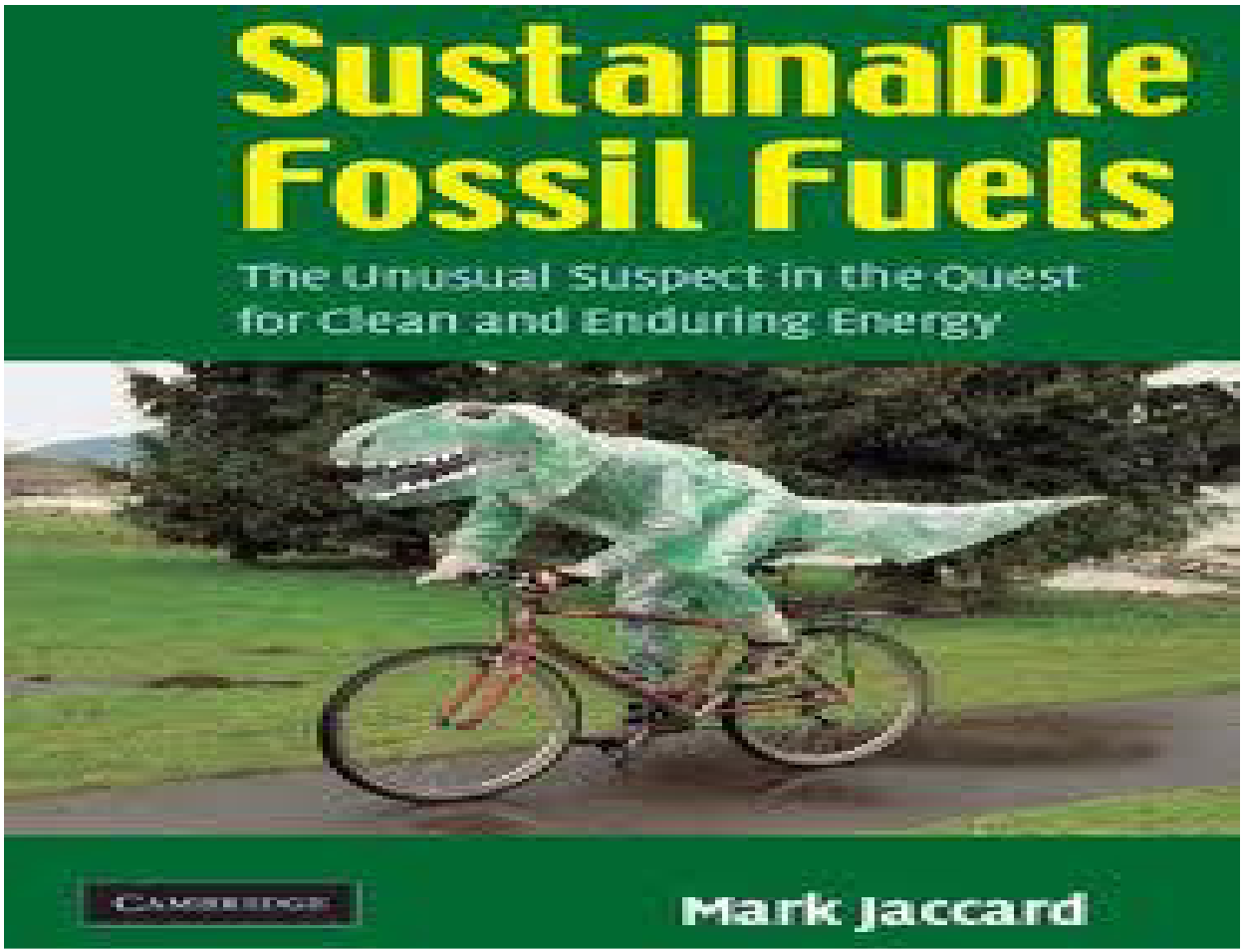
A cura di: Lucia Scuteri

Fossil fuels:
Energy from fossilised organic materials

Coal, oil and gas are called "fossil fuels"

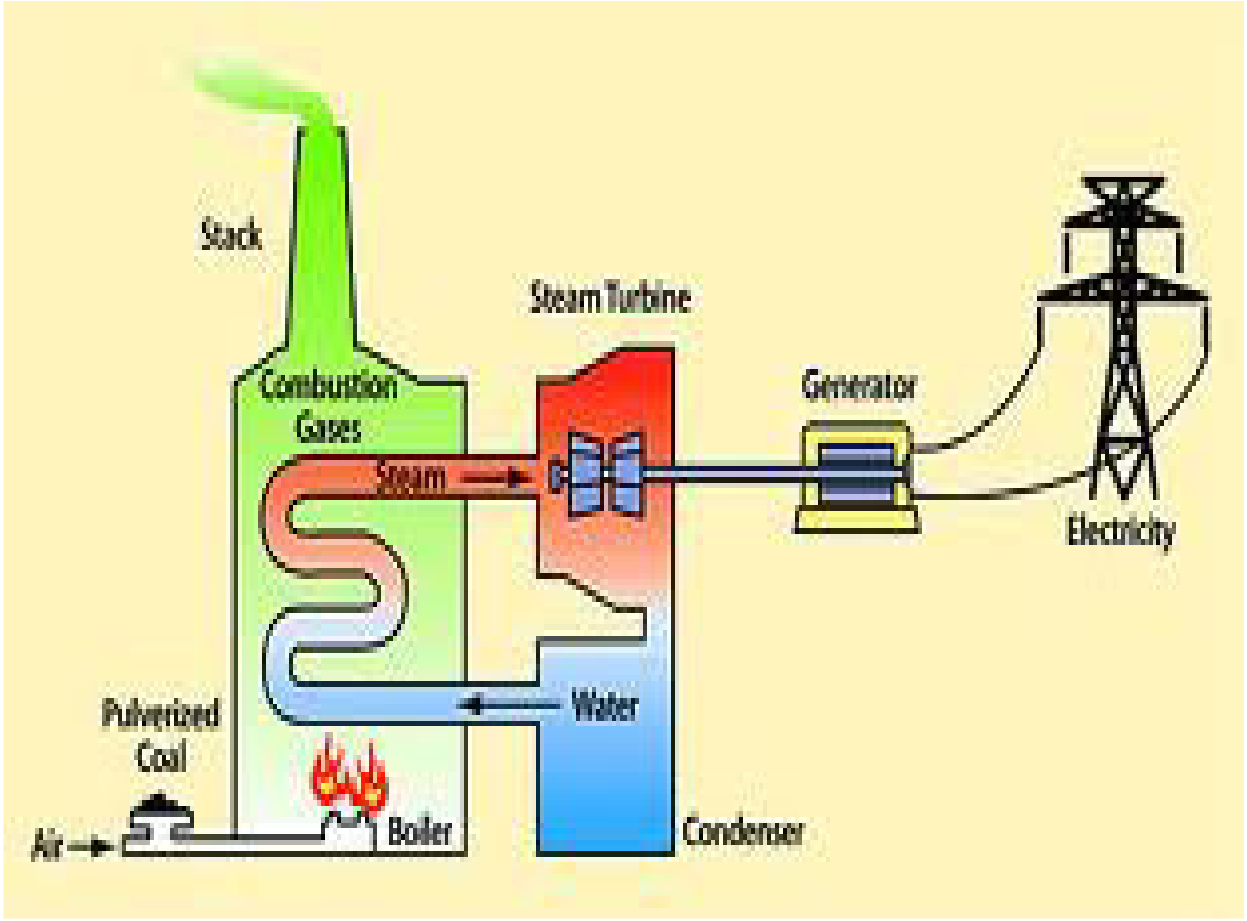
Because they have been formed from the organic remains of prehistoric plants and animals.



How it works:

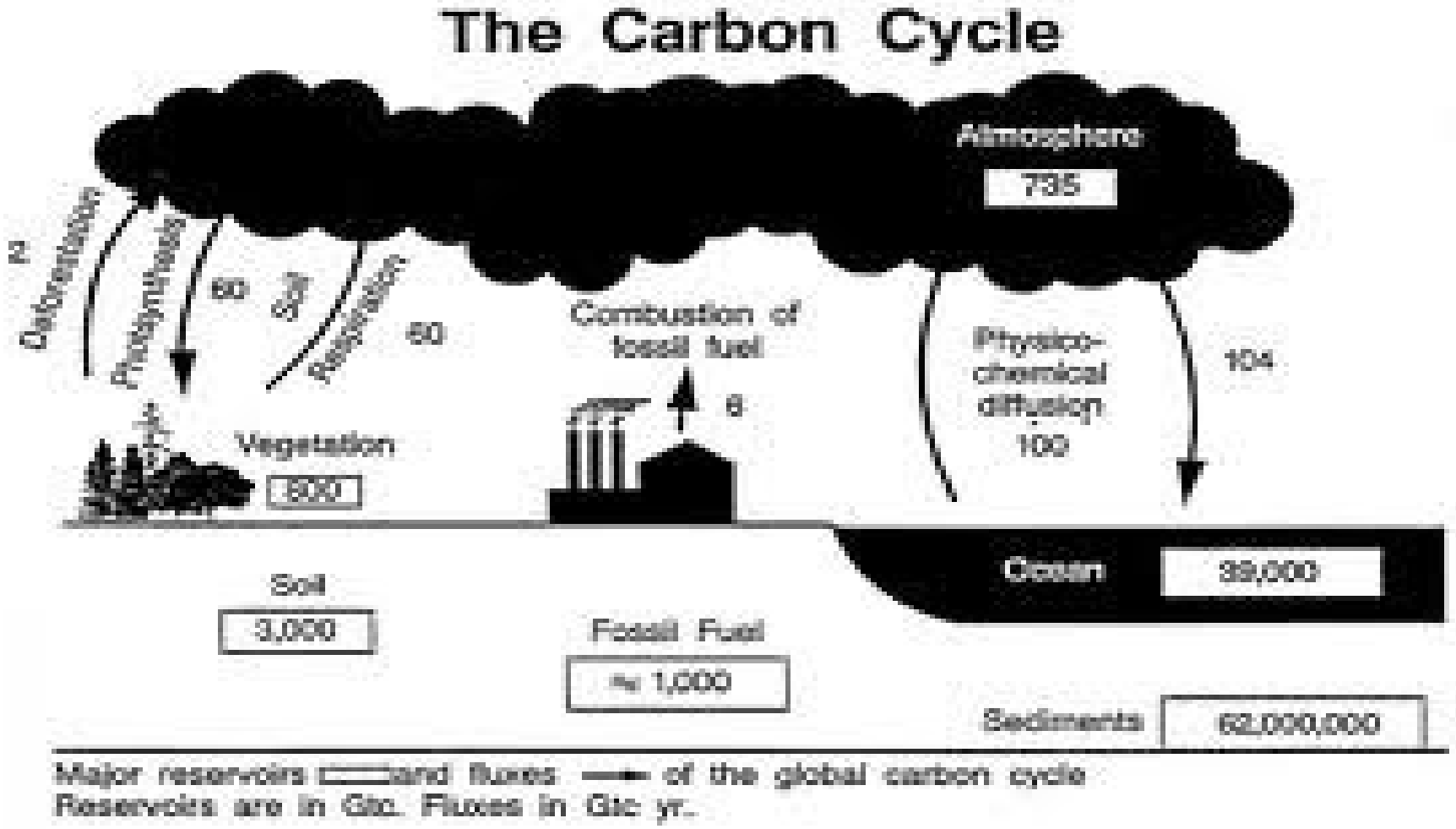
Coal is crushed to a fine dust and burnt. Oil and gas can be burnt directly.

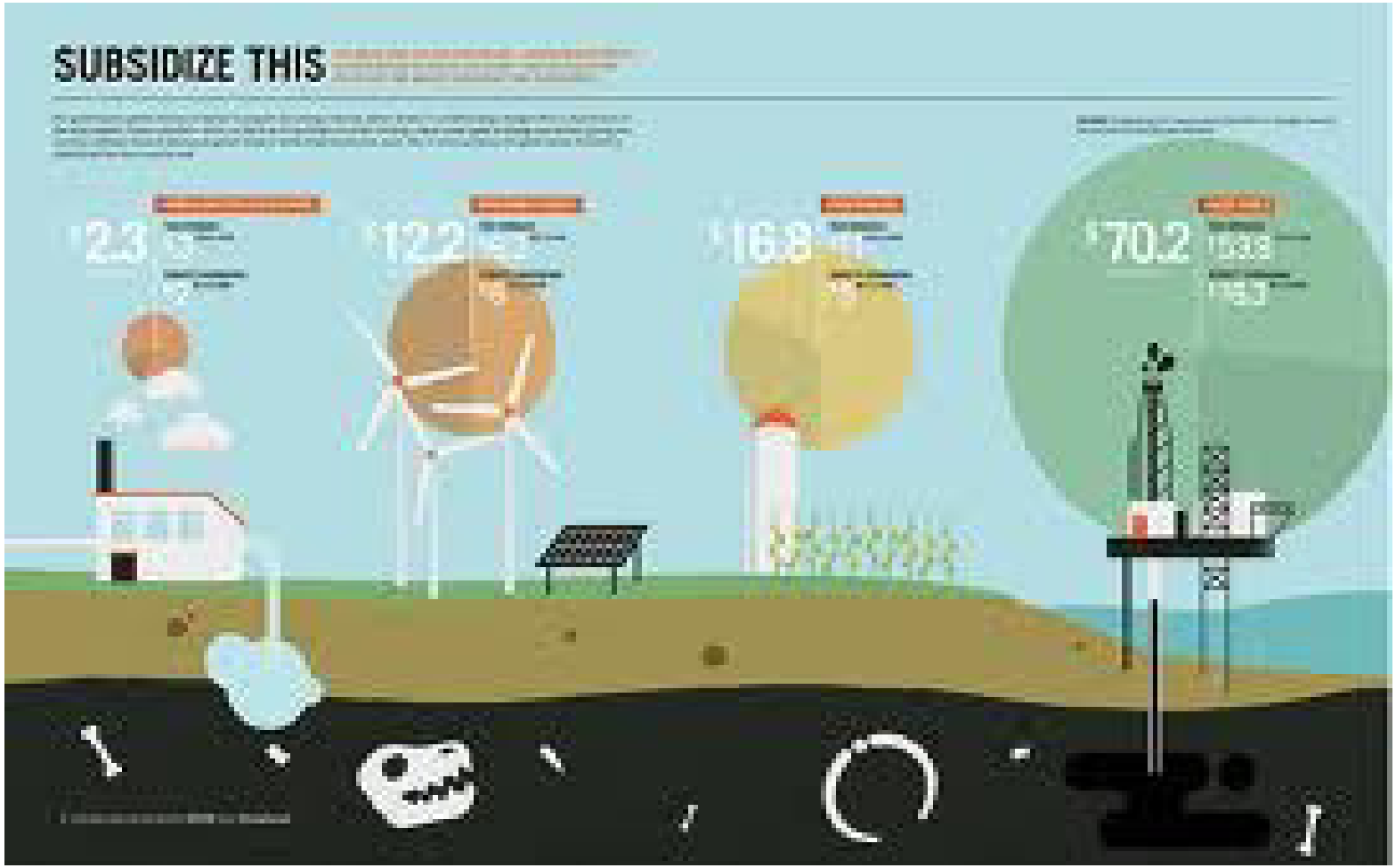
The steam that has passed through the power station's turbines has to be cooled, to condense it back into water before it can be pumped round again



Coal provides around 28% of our energy,

and oil provides 40%.




SUBSIDIZE THIS
$2.3
$122
$168
$70.2
153.8
115.3

Burning coal produces sulphur dioxide, an acidic gas that contributes to the formation of acid rain. This can be largely avoided using "flue gas desulphurisation" to clean up the gases before they are released into the atmosphere.

- **Crude oil (called "petroleum")**

  is easier to get out of the ground than coal, as it can flow along pipes. This also makes it cheaper to transport.

Natural gas provides around 20% of the world's consumption of energy, and as well as being burnt in power stations, is used by many people to heat their homes.

Advantages

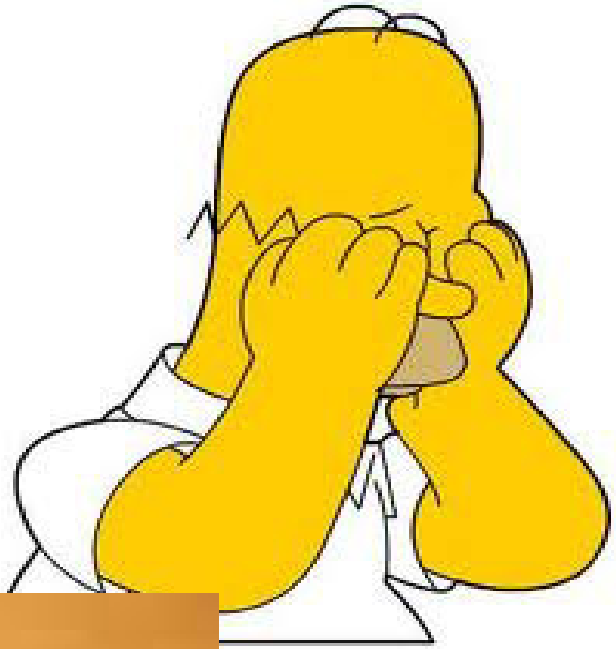
-

-Very large amounts of electricity can be generated in one place using coal, fairly cheaply.

-Transporting oil and gas to the power stations is easy.

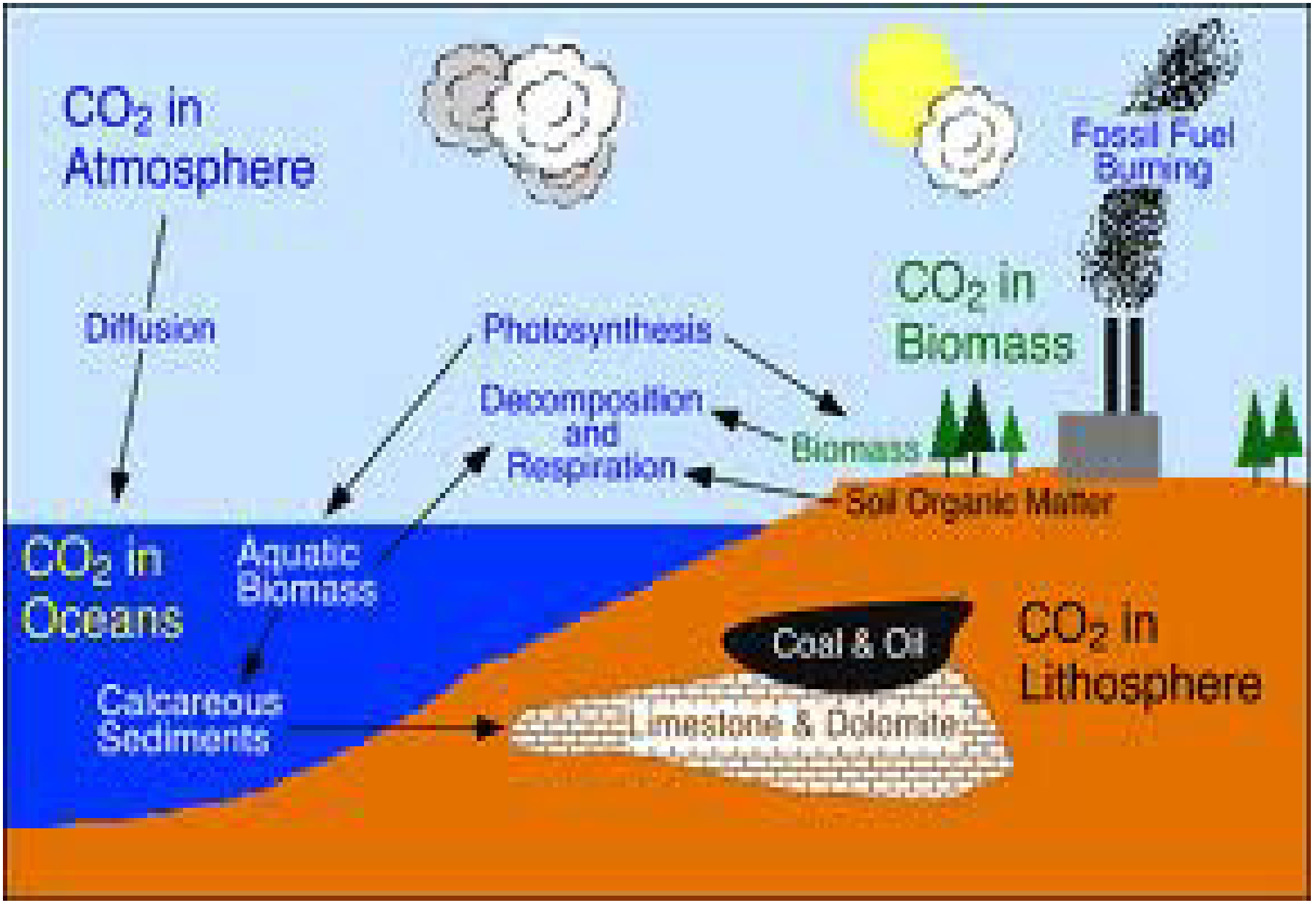
-Gas-fired power stations are very efficient.

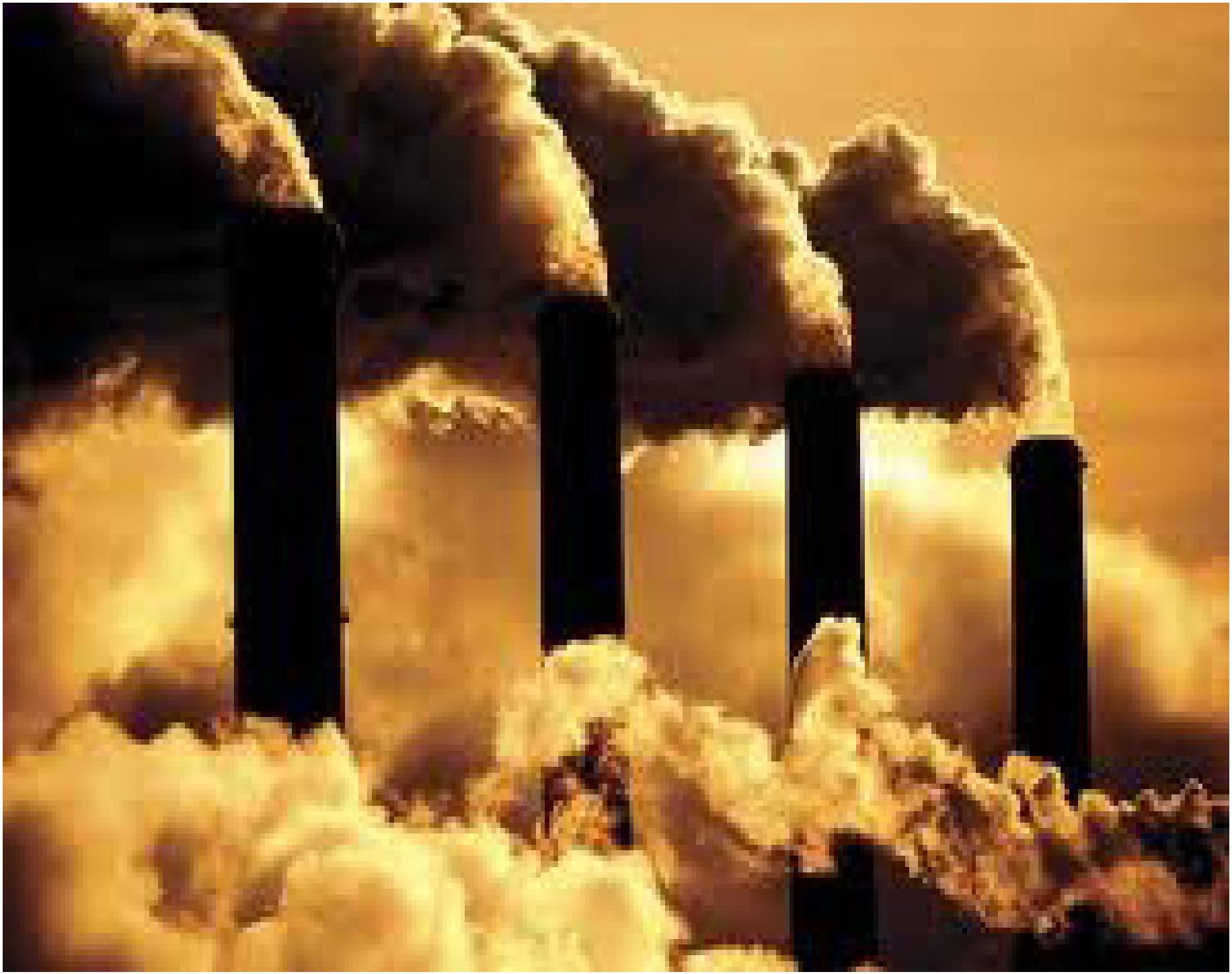
Disadvantages



Pollution:

- **Burning any fossil fuel produces carbon dioxide**


CO_2 in Atmosphere
Diffusion
Photosynthesis
Decomposition and Respiration
Biomass
Soil Organic Matter
CO_2 in Biomass
Fossil Fuel Burning
CO_2 in Oceans
Aquatic Biomass
Calcareous Sediments
Coal & Oil
Limestone & Dolomite
CO_2 in Lithosphere



- **Mining coal can be difficult and**

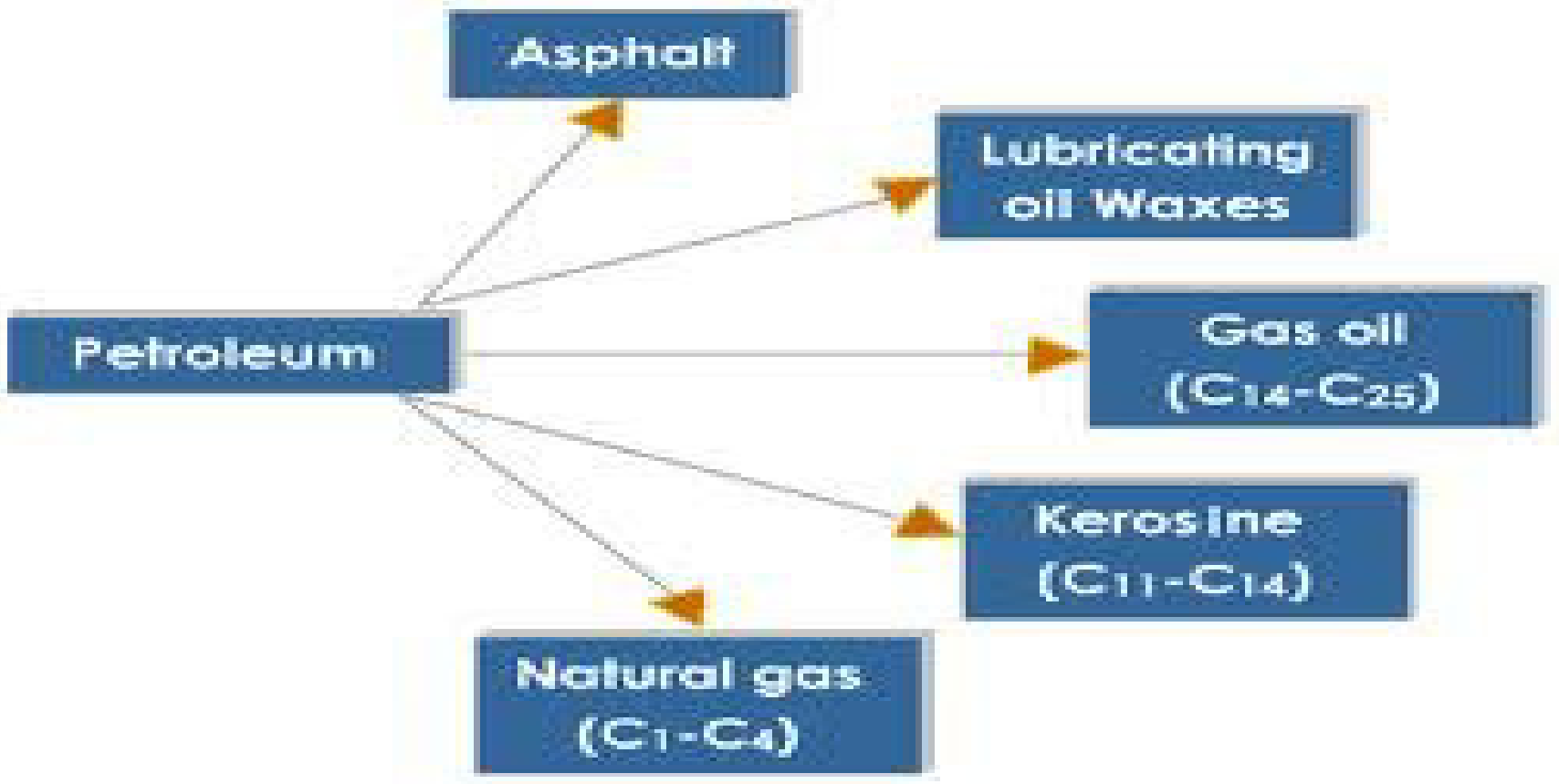
Workers emerging from a coal mine, Dhanbad, Bihar State, India, 1989 - Gelatin Silver Print, 19 5/8 X 23 1/2 inches
Photographs by Sebastião Salgado/Amazonas Images

- **Fossil fuels are not a renewable energy resource.**

Once we've burned them all, there isn't any more!!

Once we've burned them all, there isn't any more

because more coal seams and oil fields will be formed if we wait *for many millions of years!!!!!*



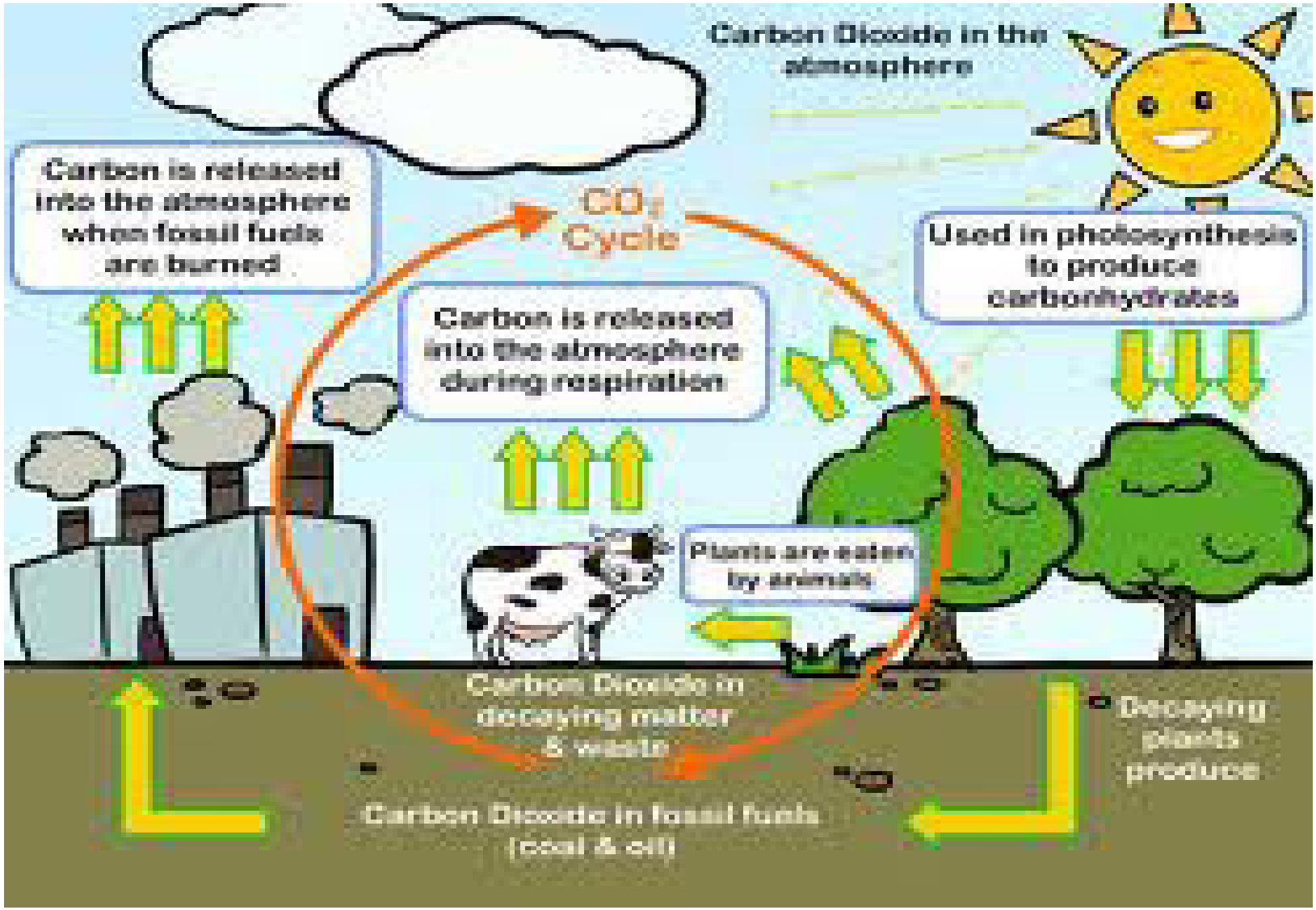
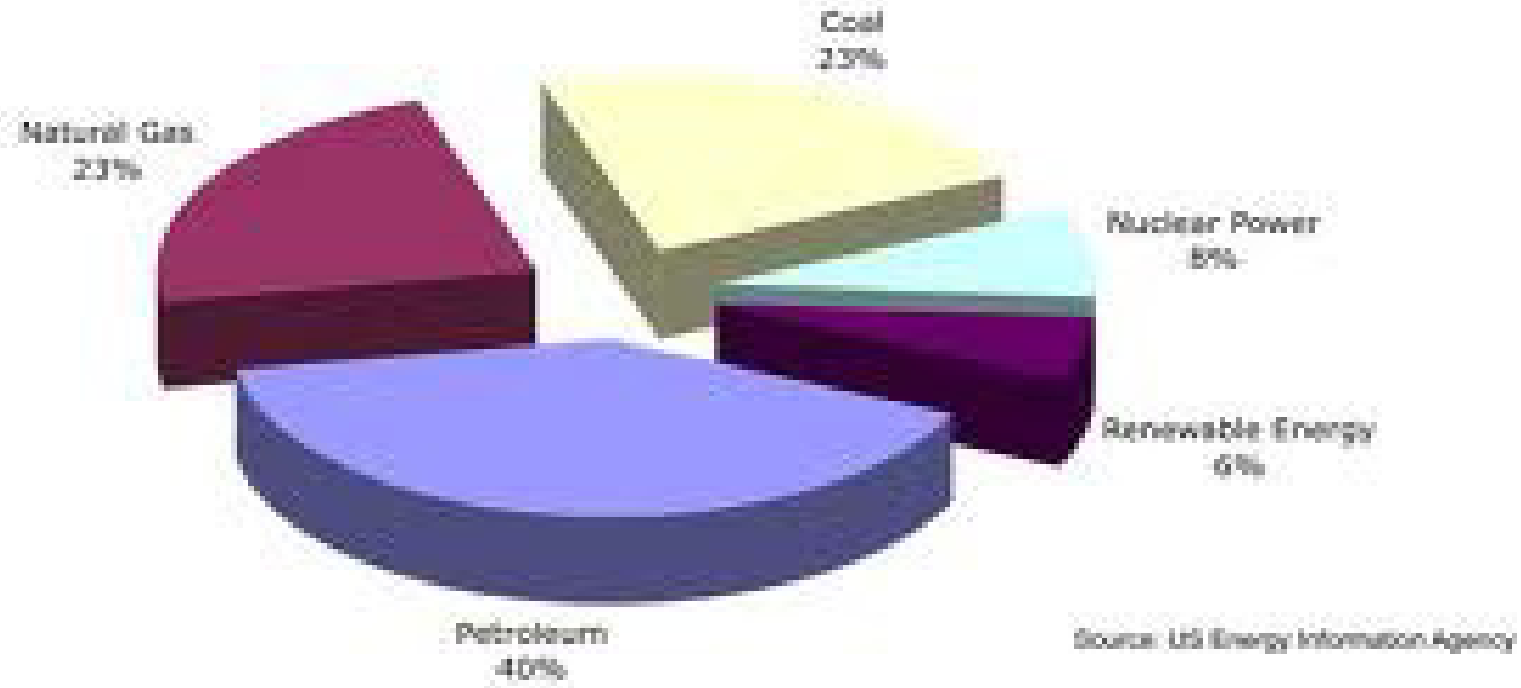
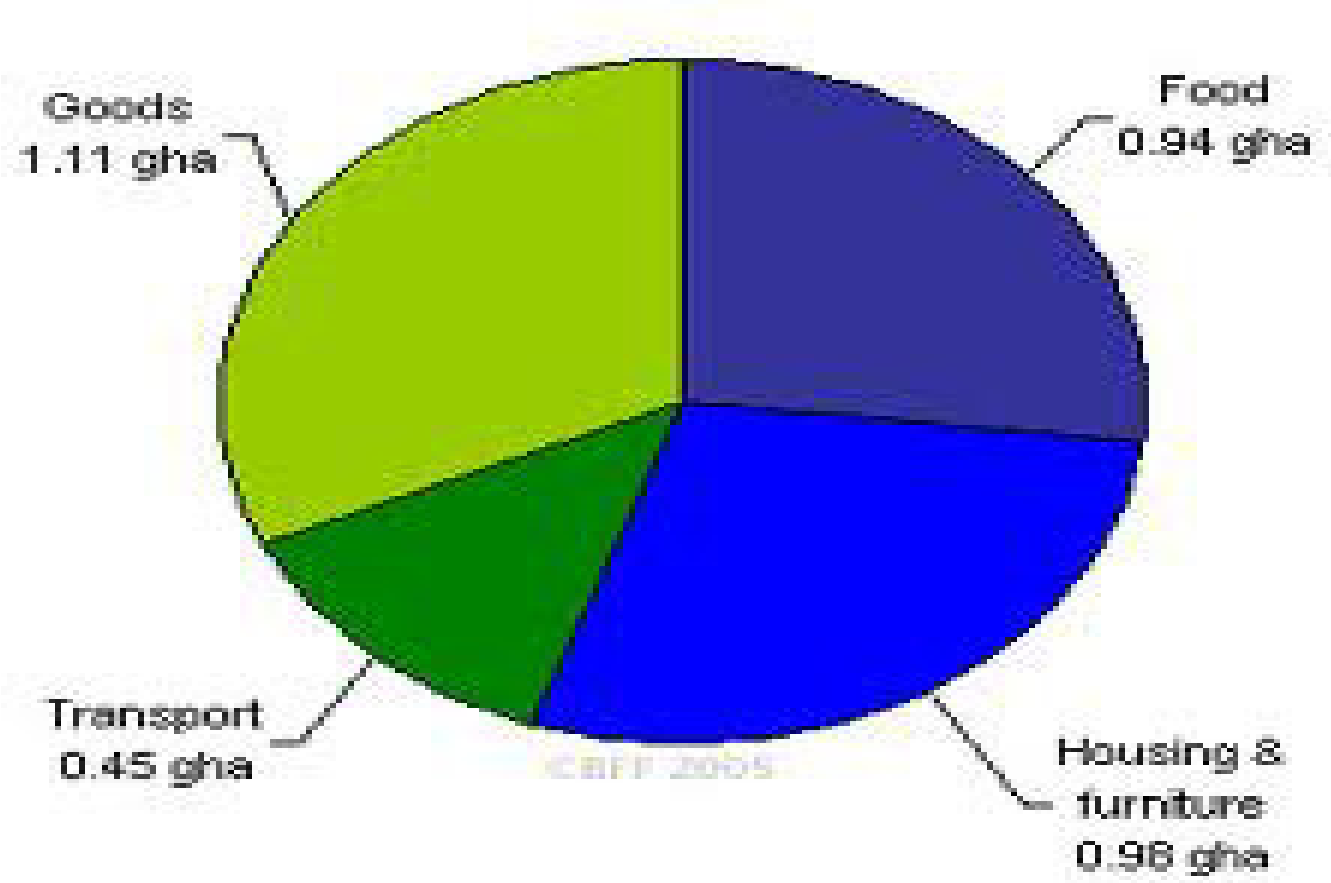

Carbon Dioxide in the atmosphere
Carbon is released into the atmosphere when fossil fuels are burned
CO_2 Cycle
Used in photosynthesis to produce carbonhydrates
Carbon is released into the atmosphere during respiration
Plants are eaten by animals
Carbon Dioxide in decaying matter & waste
Decaying plants produce
Carbon Dioxide in fossil fuels (coal & oil)

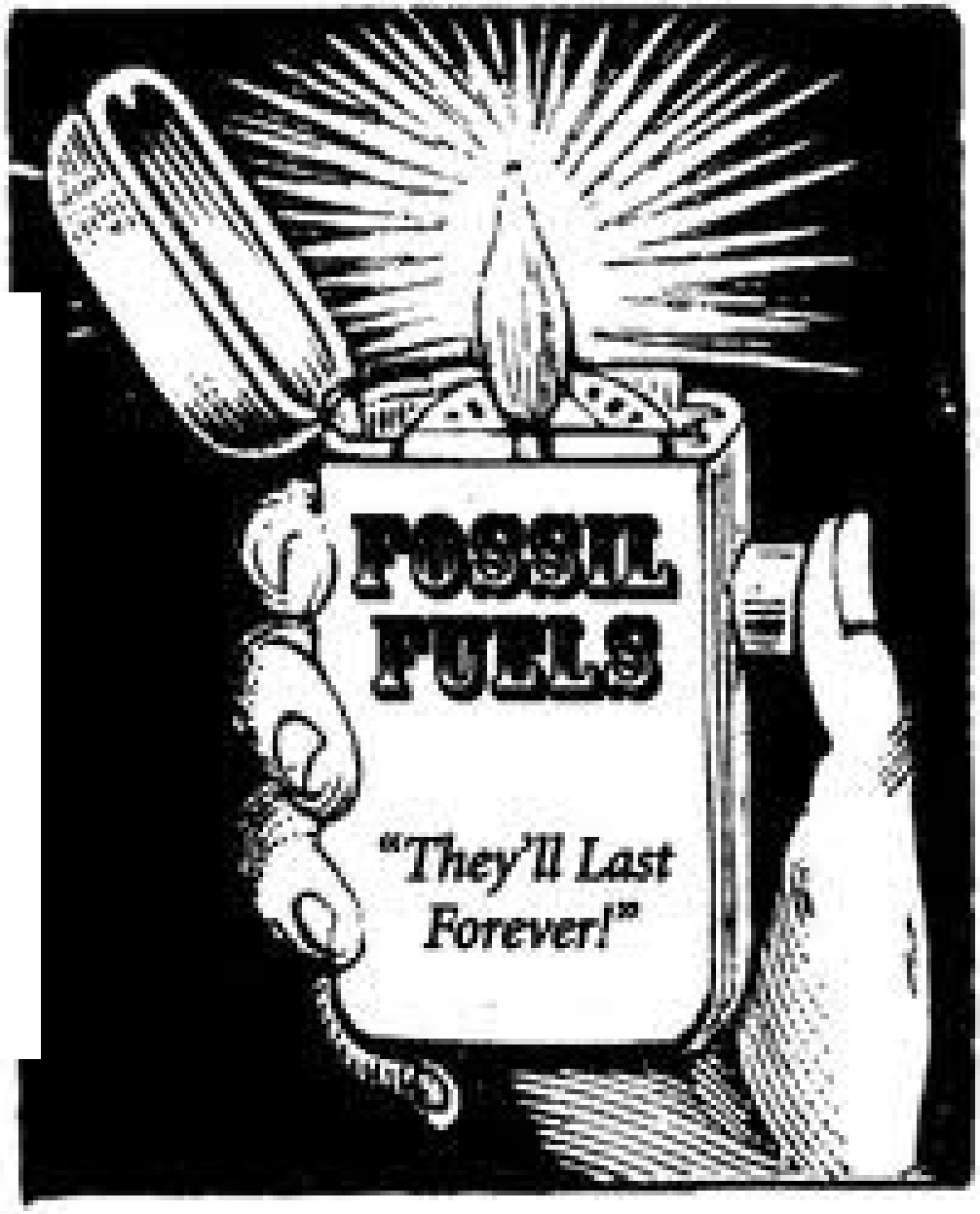
Figure 1: 86% of US Energy Consumption Is Fossil Fuels



Fossil fuels are used in:



The end!!



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