Oil Tanker Spills and Worldwide Usage

Background

Oil spills are an on-going environmental worldwide concern and often result in both immediate and long-term environmental damage. Some of the environmental damage caused by an oil spill can last for decades after the spill occurs.

ITOPF (International Tanker Owners Pollution Federation Limited) maintains a database of oil spills from tankers, combined carriers and barges. It contains information on accidental spillages since 1970, except those resulting from acts of war. Spills are generally categorised by size, <7 tonnes, 7-700 tonnes and >700 tonnes.

Data

This investigation looks at the number oils spills from tankers over the last 40 years. ITOPF report that 81% of all spills are considered minor (less than 7 tonnes), while the remaining 19% are greater than 7 tonnes and have a much larger impact on the environment. This dataset only includes spills that are categorised as being greater than 7 tonnes.

The total amount of oil spilt each year from tankers is also shown.

World figures for oil production, oil consumption and CO_2 emissions comes from BP Global.

Variables

Year: Year recorded (from 1970 to 2011)

7-700 tonnes: Number of oil tanker spills in the category of 7-700 tonnes

>700 tonnes: Number of oil tanker spills in the category of >700 tonnes

Quantity: Total amount of oil spilt in tonnes

Oil production: Total amount of oil produced worldwide in millions of tonnes

Oil consumption: Total amount of oil consumed worldwide in millions of tonnes

CO_2 emissions: Total amount of CO_2 emissions worldwide

Sources: ITOPF, BP Statistical Review of World Energy.

Questions

What relationships can be found between the variables?

How might we give a reason for the relationship between oil spillage and oil production?

How might we explain why more and more oil is being produced?

Further investigation

What statistical data can be found on oil spills that come from sources other than oil tankers?

Do they show similar results?