Geography of Supply Pathways

**Examining developments in the geography of energy infrastructure and supply pathways that connect producers to consumers, these can be complex and show increasing levels of risk**

Energy pathways between producers and consumers highlight the considerable levels of risk involved in the energy industry.

**Patterns:**

**Oil** has a complex global pattern of PATHWAYS and PLAYERS (exporters and importers).

* The Middle East exports around 15 000 barrels per day, mainly to Japan, Europe and China.
* Substantial amounts flow from Africa, Canada and South and Central America TO the USA.
* Russia supplies some oil to China, but the bulk of its exports now head to Europe.

**Gas** pathways are different in that they tend to be localised and regional rather than global.

Traditionally gas is transported through pipelines, whereas oil has been transported by ship.

A possible future is that as movement through pipeline becomes less dependable (for political reasons); there will be a switch towards shipping gas in tankers as LNG.

**Physical and human causes of disruption:**

* Long running tensions in the Middle East e.g. destruction of oil wells during Iraq war consumed 6 million barrels of oil a day for 8 months
* Hurricane Katrina in 2005 affecting oil production and refining in the Gulf of Mexico causing oil and petrol prices to rise

**Over to you:**

Produce a detailed presentation on any pipeline such as:

1. Trans Siberian gas pipeline
2. Trans Alaskan pipeline
3. Keystone XL oil pipeline
4. Middle Eastern supplies

What to include:

* Location map of energy producers, consumers and supply pathways
* How the infrastructure has developed over time
* Key facts – the amount and manner of transportation and main route and alternatives
* Have there been any geo-political tensions or environmental concerns?
* What have been the impacts of the above? – prices, economy, political relationships

**Definitions:**

**Energy infrastructure -** The built environment constructed for the exploration, development and production of energy, and all the networks

**Energy pathway** - Supply routes between energy producers and consumers e.g. pipelines or shipping routes

**Environmental Impact Assessment** - Details all of the impacts on the environment of an energy type or another project above a certain size

**Supply shock** - A significant interruption to supply due to an environmental, economic or political event