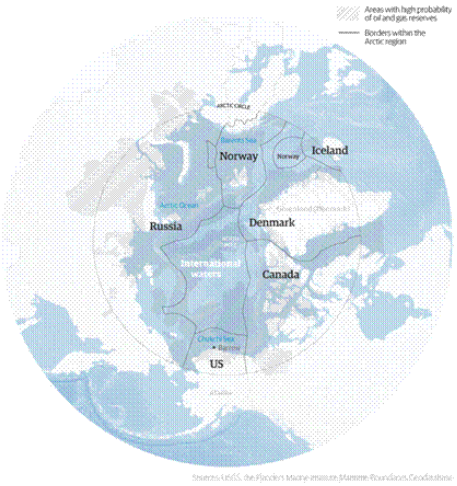
EnviroSci

Briefing Papers

The Issue of Oil Reserves in Polar Regions

The Arctic is not only a beautiful landscape but is also a home for the many species of wildlife which live there. Aside from its natural beauty, the Arctic is estimated to hold the world's largest remaining untapped gas reserves and some of its largest undeveloped oil reserves. Tapping these reserves would cause implications for the global climate and for the Arctic environment. If or when we do tap into this resource it will be devastating to all wildlife located there especially marine ecosystems. There are many threats posed by this including:



- the absence of a proven method to clean up oil from icy water (thus, putting many marine habitats at risk of destruction)
- the harsh and volatile conditions of the Arctic make it difficult to respond quickly if an oil spill was to occur
- the possibility that an oil rig may require some of the local wildlife to move from the area that are imperative to a local community's economy
- the fact that noises involved in oil exploration could also disturb the local wildlife who use sound to navigate dark waters, thus leaving them at risk to predators or other dangers.

Therefore, we are posed with a great issue. We could tap into this possible great magnitude of oil however as we can see, this puts many wildlife species in danger. Also, due to the sheer amount of oil which could be on the line, disputes between oil companies and even whole countries over the distribution of the oil, as well as whether it is even right to retrieve the oil in the first place.

<u>Points to Consider:</u>

- Is it right to try to retrieve the oil in the first place?
- How can we decide which countries get which amount of the oil?
- Can we safely retrieve the oil with causing minimal damage to the environment?
- Although complete clear up is virtually impossible and assuming we do decide to retrieve the oil, how can we ensure that the wildlife is safe from danger?
- Can we afford to miss out on this opportunity by not drilling in the Arctic?

Useful Links:

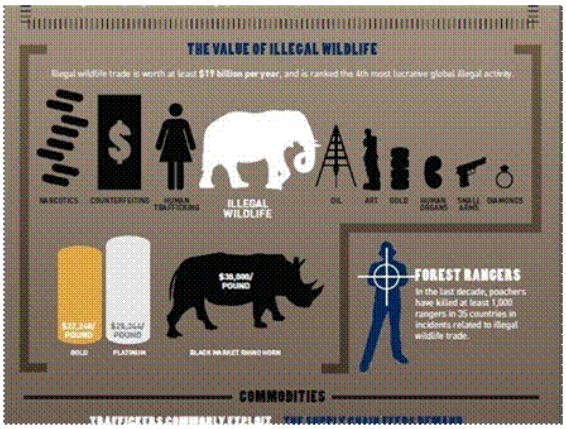
http://www.greenpeace.org/usa/arctic/issues/oil-drilling/

https://www.theguardian.com/environment/ng-interactive/2015/jun/16/drilling-oil-gas-arctic-alaska

https://thinkprogress.org/dont-let-shell-fool-you-arctic-drilling-is-not-a-thing-of-the-past-5a9acdb2d138

http://www.investmentu.com/article/detail/45387/shell-oil-pros-cons-arctic-drilling-why-start-now#.WVfd9Yjyu70

The Issue of the Illegal Animal and Wildlife Trade



Poaching occurs to countless species from marine turtles to timber trees, and yet the trading and hunting of animals and wildlife is vital to sustain certain economies and fills thousands of jobs across the world. However, when this trading becomes illegal, it poses a huge threat to the species being hunted. Trading can be illegal especially when it is concerning endangered animals: due to their status, these animals fetch a higher price and are therefore highly sought after.

Recently, there has been a huge spike in illegal wildlife trading, for example in South Africa where rhino poaching increased from 13 to 1004 rhinos being hunted annually between 2007 and 2013, due to the rumour that their horns possess medicinal qualities; furthermore, a total of more than 23 metric tons of illegal ivory was seized in 2011. Poaching also currently threatens the last of the world's wild tigers which currently number around 3890.

The illegal wildlife trade is present due to ideas such as high profit margins which can be achieved through hunting and killing endangered animals. And so, the price of animal resources has rocketed. Furthermore, there has been an increase in crime rates in areas where the trading occurs, thus making them more dangerous. There are also weaknesses in many nations' judicial systems, which make it so that criminals have relatively light sentences, allowing the criminals to continue to plunder wildlife with little regard of the consequences of their actions.

However, it must be stressed that quite a considerable amount of wildlife trading is done perfectly legitimately with wildlife being sold as food, medicine, ornamental plants and more.

The WWF is putting great efforts into combating the issue since after all, it is one of the largest direct threats to the future of many of the world's most threatened species in the wild.

<u>Points to Consider:</u>

- How can we dissuade hunters from hunting especially endangered species?

- Should regulations be put in place in regards to how much hunting can take place?
- Are there any further measures that should be put in place to prevent poaching?
- If so, how would these be administered?
- If needs be how can we further monitor the wellbeing of endangered wildlife?

Useful Links:

http://wwf.panda.org/about_our_earth/species/problems/illegal_trade/

http://www.traffic.org/trade/

https://www.theguardian.com/vulcan-partner-zone/gallery/2016/dec/20/10-animals-threatened-by-poaching-and-the-illegal-wildlife-trade-in-pictures

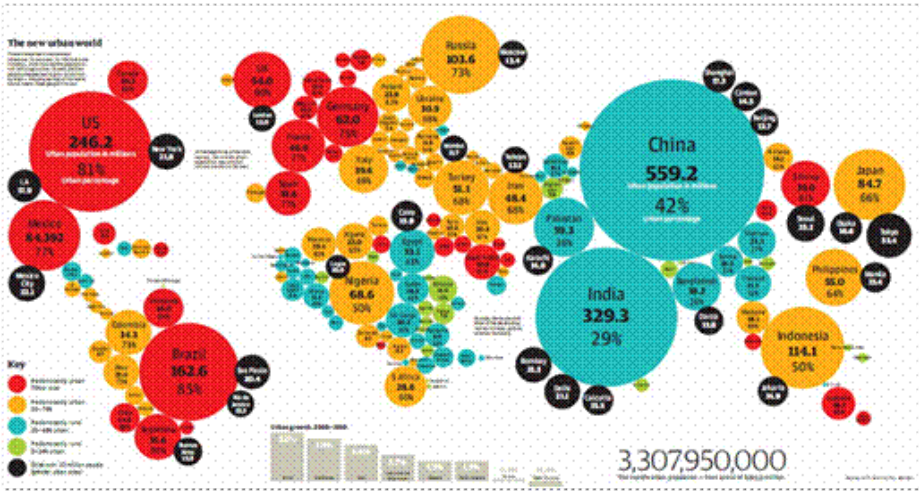
https://www.wwf.org.uk/what-we-do/area-of-work/stopping-illegal-wildlife-trade

The Issue of Urban Growth and Sustainable Urbanisation

Urban Growth: the measure of how much an urban population grows over time. The rate of growth can be calculated by taking the population of a specific urban area and subtracting it from the total population of the nation in which it is in.

An urban population can increase for several reasons these can be classified into two categories; push and pull factors. **Push factors** - reasons why people leave rural areas (e.g. poor crop yields or overpopulation); **pull factors** - reasons why people are attracted to urban areas (e.g. better job opportunities or a better standard of living). This can be within a nation or internationally, but it is an ever-growing issue in today's society across the world and with many people realising the great qualities of urban life, migrants flock from different nations in hope for a better life for them and their children. With an increasing population, there is a necessity for a greater number of and better quality infrastructure increases, which require funding, workers and planning.

This is one of the many issues which nations, especially Less Economically Developed Countries (LEDCs), have problems with tackling. Due to their current financial and economic state LEDCs may find it hard to accommodate for masses of migrants wishing to move to their populous cities. This task let alone is difficult, even for a More Economically Developed Country (MEDC), as the country must cope with the prospect of making this urbanisation sustainable (the ability to maintain something at a certain rate or level.), thus adding a new dimension to this task is proving to be a challenging feat. And so, we apply this idea of sustainability to infrastructure when developing urban areas by adding entities such as solar panels, wind turbines and efficient water fixtures.



Points to Consider:

- How can sustainable development be implemented into modern infrastructure?
- What is the best solution to house incoming migrants coming to urban areas?
- How can help be provided to countries who require aid with planning and carrying out urbanisation?
- What are the effects of migration and high populated, busy areas on the quality of life in urban areas?

Useful Links:

https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/18_urbanization.pdf

http://greenliving.lovetoknow.com/Slideshow:Examples_of_Sustainable_Development

http://maddiisgeographyassesment.weebly.com/impacts-of-issue.html

https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwjlh7ul-eDUAhUrDcAKHckwAaQQFggvMAE&url=http%3A%2F%2Fwww.springer.com%2Fcda%2Fcontent%2Fdocument%2Fcda_downloaddocument%2F9783642052989-c1.pdf%3FSGWID%3D0-0-45-876948-p173940766&usg=AFQjCNHfwsxBSzFWyuW-LgZK5LRntDi4QA