

Pressures and threats on the coast

The coast is constantly under threat from both natural and human activities. Below shows some of the pressures that affect the coast:

Threat	Explanation/Background	Case Study
<u>Environmental Pressure: Oil Pollution</u>	<p>Fawley Oil Refinery is situated in on Southampton Water, Hampshire. It has 3 main impacts:</p> <ol style="list-style-type: none"> 1. expansion of the refinery has lead to the destruction of the salt marsh which is designated an Site of Special Scientific Interest (SSSI) 2. Effluent from the refinery is enter the water. The effluent can be as warm as 30°C and therefore leads to eutrophication 3. Metal pollution occurs despite checks for phosphates, lead and mercury. The levels are below the legal limit, but it is still damaging 	<p>Fawley Oil Refinery:</p> <ul style="list-style-type: none"> - Largest in the UK employing over 3000 people, handling 2000 ships and 22 tonnes of crude oil a day - The location on Southampton Water means that it is accessible via the English Channel and Solent. <p>Fawley does has some positives, these are:</p> <ul style="list-style-type: none"> - 50,000 trees and shrubs were planted when the refinery first opened.
<u>Environmental Pressure: Damage to Coral Reefs</u>	<p>Threats:</p> <ul style="list-style-type: none"> - Increased sediment run off as a result of deforestation, mining and building work causes damage to corals - Rapid urbanisation when infrastructure lags behind leads to increased raw sewage output. This can lead to eutrophication - Anthropogenic impacts such as diving, removal of coral for souvenirs, blast fishing, dredging, etc - Coral bleaching as a result of increased ocean temperatures exceeding the optimum of 20-30°C for corals to survive. 	<p>Asia - many reefs are found around developing countries where deforestation is common e.g. selling wood in order to make money</p> <p>Maldives and Africa - global warming in the past threatens 97% with coral bleaching</p>
<u>Environmental Pressure: Oil Spills</u>	<p>The Exxon Valdez Oil Spill occurred when a huge oil tanker (ship) ran aground and punctured its hull. As a result 11 million gallons of crude oil flooded out into the cold waters of Alaska.</p> <p>Impacts:</p> <ul style="list-style-type: none"> - 40 miles of water covered in oil due to a force 4 storm causing it to distribute. - 800 miles of beach was affected - 500,000 birds and 3,000 otters were affected by the oil - 	<p>The Exxon Valdez oil spill was one which many lesson were learnt. After it occurred there were, in some peoples opinion, failings in the way it was handled</p> <ul style="list-style-type: none"> - After the oil had reached 2 miles wide and 4 miles long, 2 hours later did a team come to begin the clean up. Some say it could have been a lot less worse if they responded quicker.



<p><u>Demand for Increased Renewable Energy</u></p>	<p>The development of the Severn Barrage is one of the largest in the UK. The impacts of this are:</p> <ul style="list-style-type: none"> - Disruption to wildlife, flood management, navigation, landscape, ecology, etc. - Salt marshes and rocky islands home to 65,000 birds are threatened. - Disruption to shipping up the estuary as well as increased sedimentation - The tide is held longer, so there's less feeding time for birds such as waders. 	<p>Severn Barrage:</p> <ul style="list-style-type: none"> - In January 2008 a feasibility study was set up by the government - The barrage could supply up to 5% of the UK's energy demand - The location is key with it having the 2nd largest tidal range in the world at 13 meters.
<p><u>Lack of Space: Land Reclamation Pressure</u></p>	<p>Around 75% of Japan's land surface is mountainous so is unsuitable for building therefore they have reclaimed land from the sea.</p> <ul style="list-style-type: none"> - Between 1950 and the oil crisis of 1973 around 110,000 hectares of land was reclaimed in Tokyo Bay - This has accommodated the 25 million that live there today - The land is used for oil refining, manufacturing and other industry 	<p>Japan, Tokyo Bay:</p> <p>There has been a slow down in land reclamation due to:</p> <ol style="list-style-type: none"> 1. slow down in economic growth rates 2. pollution of water caused by landfill in some reclamation work 3. Discovery that in earthquakes soil liquefaction can occur and the land loses its load bearing capacity.

