

The Holderness Coastline

The Holderness Coastline is the fastest eroding coast in the UK with in a single storm hundreds of thousands of tonnes of rock being eroded. There are three main reasons why this is the case, these are:

1. Geology - boulder clay and glacial sands make up a large amount of the coast
2. Power of the waves - hydraulic action , attraction and abrasion occur due to the long fetch that waves have when they meet the coast
3. Material once in the sea - the materials that is eroded either dissolves into the water or is carried away by longshore drift. This means that the coast is protected by the eroded material like some other coasts.

Mike Needly - Ringborough Farm:

Mike Needly is a farmer in which his coast is situated on the coast. In 1973 he had to remove his piggery due to the eroding coast. In 1939 he bought the property with 145 acres of land, rates of loss by 1-2 meters a year mean that he has lost nearly half of that now. As a result of this Mike has diversified and now sells bottled natural gas in order to survive.

Issues with defending the coast:

- Defending the coast can exacerbate issues further down the coast, with some saying it may harm the SSSI Spurn Point.
- Building and maintaining the defences is expensive and not feasible for some places along the coast
- No money is given for the loss of land either though it costs the owner roughly £5000-£5500 a year per acre.

Where have defences been built?

- Withernsea, Hornsea and Bridlington have seen sea defences built because the cost-benefit analysis has shown that it is worth protecting for the value of the assets on the coast there.
- Defences have also been built at **Mappleton**, this is because the coastal erosion was threatening the road that connected this village. The road is only 34 meters from the sea and it was seen that it would be cheaper to build sea defences than move the road. The sea defences cost £1.9 million in 1991 using 60,000 tonnes of granite and 2 large groynes.
- The benefits of building the sea defences are that it now allows people to get a mortgage from the bank for properties, it has also meant that 20 people working in the local car garage who rely on the road can keep their jobs.
- **Easington** has had sea defences built because it is where the natural gas that supplies 29% of the UK comes from through pipelines from the continent. Here groynes and rip rap have been built to protect the area for 50 years.

Where have defences not been built?

- At Kilnsea East Riding council have decided not to fund the building of sea defences due to the fact that the cost benefit analysis shows that there are not enough assets of value to justify the spending.
- As a result the local people have implemented flood drainage ditches (soft engineering) which are currently protecting the area. These are expected to last for around 20 years.
- The Sandy Beaches Caravan Park has not had sea defences built and has therefore had a loss of land. 10 meters have been lost at one time in a winter storm. The government is helping though, with every 4 lost they will fund 5 new to be built.

