

Soft engineering
works in harmony
with the natural



**ASSIGN
BUSTER**

Soft engineering works in harmony with the natural environment and is effective in protecting the coast. To what extent do you agree with this view?

I agree with this view to a great extent. Soft engineering methods are natural ways of dealing with erosion, however, every method comes with disadvantages. One way in which soft engineering working well with the natural environment and is also effective, is beach nourishment. This is where materials such as sand and shingle are moved from the bed out at sea or further down the coast and placed at the location of the eroding beach, this therefore creates a wider beach.

Wider beaches absorb the energy of the waves before they can create damage to the coast, as they reduce the erosion of the cliff more than thin beaches. The main disadvantage of this method is that taking sediment from one area and relocating it to another often only moves the problem as the area which sediment has been removed now has a thinner beach, creating more erosion. So despite the fact that it is working well and in harmony with the natural environment and is effective in area in which you're trying to protect, it may cause problems and worsen another area.

One location in which beach nourishment has been proven successful is that of Seafood Head, it parts to this: Firstly it involved scraping back the existing beach to reveal the solid underlying chalk; then putting on a foundation of small rocks; placing 50,000 tonnes of granite blocks, up to 15 tonnes each, in front of the old sea wall; adding then a further 3 million tonnes of shingle to the height of the old sea wall and promenade, this shingle was dredged from the seabed 15 km offshore.

This solution has proved very successful at Sea-food but there have been serious Implications for the unprotected cliffs of Seafood Head, to the Immediate east of the Greene. Here, beach levels have fallen rapidly and, as a result, the rate of erosion of the unprotected chalk cliffs is clearly increasing. Moreover, another method of soft engineering with works in sync with the natural environment Is beach stabilization. The goal of beach stabilization Is the same as beach nourishment's goal, to widen the beach and dissipate as much wave energy as possible before it reaches the cliffs.

Beach stabilization can be done by reducing the slope angle and planting vegetation, or by sticking stakes and old tree trunks in the beach to stabilize the sand. The only problem with this method is that it is often considered ' ugly and therefore is often unpopular with the local people as many people say it ruins the scenery. However, beach stabilization is a efficient way of protecting the coast and Is also very cheap, unlike many hard engineering schemes,