

Oxford Revise | Geography | Answers

Chapter 38 Conservation and the management of the taiga

All exemplar answers given are worth full marks.

1.

a)

- i) Clear felling
- ii) It is the most economic method because all of the tree is used. The trunks and large branches are used for building materials, and the smaller branches are pulped to chipboard and biofuel, leaving no waste. *Accept suitable alternative answers.*
- iii) It will lead to soil erosion because it removes the protective cover. It destroys the unique habitat and ecosystem associated with a taiga forest. *Accept suitable alternative answers.*
- iv) Selective logging allows only mature fully-grown trees to be cleared, leaving trees with important ecological value unharmed. It allows the unique ecosystem to remain and the trees that are left give some shelter which may reduce the rate of soil erosion from wind and rain.

b)

- i) A national park is a large area of land, protected by a government for its natural beauty, animals and plants.
- ii) Legal protection ensures conservation takes priority over resource exploitation. Access for public leisure and recreation is encouraged. *Accept suitable alternative answers.*
- c) It may not be as economic as non-sustainable methods such as clear-felling because money can be earned from the use of the whole of the tree, and there is no waste. *Accept suitable alternative answers.*
- d) UNESCO designation of World Heritage sites.
UNESCO designation of RASAR wetland sites. *Accept suitable alternative answers.*
- e) Governments are interested in exploiting the taiga, because the money earned from exporting the its resources benefits the country's economy. Commercial companies wish to make profits from the taiga's exploitation. At the same time, they provide employment bringing money into the local economy. This leads to a multiplier effect with the development of related industries, for example, saw milling to make the timber more useful for construction and other uses. Local taxation revenues can be used to develop key services such as schools and hospitals. To get to the areas where timber and other resources of the taiga are being exploited, communications must be improved. The improved transport infrastructure is of benefit to the local population.

- f) Indigenous people who live in the taiga and use it sustainably wish to conserve the forests so they can carry on their traditional way of life and ensure that future generations will also be able to live in the same way. Climate scientists recognise that the taiga has a part to play as a carbon sink in their efforts to combat climate change. Environments want the taiga's unique ecosystem to continue which would not be possible if the forests are cut down.

2.

- a) Formally designated wilderness areas are worth protecting because they are one of the few remaining areas of the world which have not been altered by human actions because they are isolated, inaccessible, and sparsely populated. The low numbers of indigenous people who live in these areas have lived there sustainably for generations and wish to carry on with their traditional way of life. These areas have a unique ecosystem, which is very fragile and could be easily damaged by pollution.
- b) Selective logging is where only mature fully-grown trees are cut down, and trees with important ecological value are left. This allows natural forest regeneration, whilst protecting local ecosystems and biodiversity, and the soil is left protected, reducing soil erosion.
- c) *For:* Exploitation of the taiga provides sources of employment in remote and inaccessible areas where there are few other job opportunities.
Against: Exploitation of the taiga can result in the indigenous people no longer being able to carry their traditional and sustainable way of life.
Accept suitable alternative answers.

3.

- a) Hydroelectric power projects need a large supply of water to drive the turbines. Reservoirs must be created which involves the flooding of valleys and the destruction of large areas of forest. HEP projects need communications for access and other forms of infrastructure, all of which results in further destruction of the taiga.
Accept suitable alternative answers.
- b) Oil exploitation often results in oil spills which pollute soils, rivers, and poison trees. Sparks from natural gas flares in the oil fields can cause dangerous wildfires during the hotter, drier summers which are becoming more common because of global warming. The exploitation of oil from tar sands in Canada has highly polluting consequences.