

1.3 Exam-style questions ms

1.

sustainability is the use of global resources at a rate that allows natural regeneration and minimizes damage to the environment;

e.g. harvesting renewable resources at a rate that will be replaced by natural growth demonstrates sustainability;

sustainable development is development that meets current needs without compromising the ability of future generations to meet their own needs;

sustainable development is a harder concept to define because different groups emphasize different aspects of it;

sustainability focuses on the rate of resource use, whereas sustainable development is more about a general approach to development;

sustainability suggests maintaining a balance/equilibrium, whereas development suggests progress/improvement/change for the better;

sustainability has a wider application, possibly including, but going beyond “development” as such (*e.g.* personal lifestyles, a particular farm *etc.*);

[4 max]

Award [2 max] for responses that define but do not distinguish between the terms.

2.

natural income is the annual growth/yield in natural capital /natural income is derived from natural capital;

natural income are marketable commodities produced by the lake / lake provides a yield or harvest of goods/services;

Example:

goods such as water for the village/crops/cattle

goods such as fish/water plants

services such as flood protection /power or electricity from dam;

Do not accept natural income as money/revenue for selling resources or definition of sustainable yield.

[2 max]

[1] for explaining natural income and **[1]** for providing one example.

3.

(f) *Strength of increasing forestry plantations [1 max].*

creation of habitat for some wildlife/replaces some woodland previously lost;
can act as corridors for wildlife;
reduction in land degradation/soil erosion;
creation of jobs/local income;
sustainable supply of wood/exportable goods;
act as carbon sinks/absorb CO₂;

Weakness of increasing forestry plantation [1 max].

habitat destruction to clear/drain land for forestry plantation;
monocultures with low biodiversity;
monocultures – easy spread of diseases;
introduction of alien species may have deleterious effects (eg New Zealand, St. Helena);

Strength of developing eco-tourism [1 max].

value/commitment to conserve biodiversity/different ecosystems;
development opportunity to involve/employ members of the local community;
greater awareness within the local community – hearts and minds type thing;
increase income/employment from lodges/tourist facilities;
multiplier effect in the local area – food supply etc;

Weakness of developing eco-tourism [1 max].

tourists can destroy the very resource they come to see (eg trampling/introduction of invasive species/invasive species);
pollution from tourism/development (eg sewage/domestic waste);
roads created for tourist can fragment the habitat;
multi-national companies rather than local communities often benefit financially;

Valid appraisal drawing on previous points made [1 max] eg:

ecotourism is more sustainable if numbers are carefully managed because it does not rely on destroying an existing habitat as creation of some forestry plantations do;
Both options have less impact than mining so it would be beneficial if either/both replaced mining;
The economic benefit of diversifying Zambia's income would be greatest if both/more than one of these options were implemented;

[5 max]

Creating jobs/income can be credited under both plantations and ecotourism.

4.

cultural influence eg rising environmental awareness led to value of straw as building material;
social influence eg animal rights leading to devaluing of animal furs in fashion;
economic influence eg increased investment in industrial processes led to higher value of fossil fuels;
technological influences eg progress in nuclear technology led to higher value of uranium;
political influences eg increasing concern for energy security in US has led to devaluing of oil / increased value of tar sands;
ecological influences eg greater understanding of ecosystems/ecology has led to high value attached to biodiversity;

NB As question does not specify further, and syllabus makes reference to marketable value (price), responses made in such terms should be credited.

Award [1 max] if four influences are identified without examples.

Award [1] for each correct reason identified, up to [4 max].

Valid influences/reasons may not be categorized in precisely the same way as above, but examples need to demonstrate different kinds of influence to gain separate credit.