

Name: _____

Date: _____

Class: _____

IB ESS

3.4 Conservation of Biodiversity

Significant ideas:

The impact of losing biodiversity drives conservation efforts.

The variety of arguments given for the conservation of biodiversity will depend on environmental value systems.

There are various approaches to the conservation of biodiversity, with associated strengths and limitations.



Reasons for Species and Habitat Preservation

1. A number of reasons to preserve biodiversity are listed below. Outline each one. For each one circle the appropriate word(s) to state whether this is an aesthetic, ecological, economic, ethical or social reason to preserve biodiversity. Each one may fall into one or multiple categories.

Food sources (Aesthetic Ecological Economic Ethical Social)

Ecological services (Aesthetic Ecological Economic Ethical Social)

Economic Value (Aesthetic Ecological Economic Ethical Social)

Educational Value (Aesthetic Ecological Economic Ethical Social)

Biological control agents (Aesthetic Ecological Economic Ethical Social)

Gene Pools (Aesthetic Ecological Economic Ethical Social)

Future unknown uses (Aesthetic Ecological Economic Ethical Social)

Medicine (Aesthetic Ecological Economic Ethical Social)

Rights of indigenous peoples (Aesthetic Ecological Economic Ethical Social)



Recreation (Aesthetic Ecological Economic Ethical Social)

Ecotourism (Aesthetic Ecological Economic Ethical Social)

Biorights (Aesthetic Ecological Economic Ethical Social)



International Cooperation and Conventions on Biodiversity

1.

a) What do the following acronyms stand for?

IGO

GO

NGO

b) Compare and contrast the above types of organisation. Include examples of each on in your answer.



2. IGOs, GOs and NGOs are all involved in conservation. List and explain the factors that affect how successful they are in ecosystem conservation and restoration.

Factor	Explanation
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3. Outline the role that the United Nations (UN) has had on biodiversity conservation.

4. The World Conservation Strategy (WCS), published in 1980, was pivotal in its impacts on the conservation effort.

a) List the organisations involved (don't use acronyms).

b) List the aims of the World Conservation Strategy.



5. In the space below draw a timeline showing major milestones in international cooperation in protecting biodiversity. (Draw it landscape if you want to).



Approaches to Conservation – Species Conservation

1. Conservation methods may involve habitat conservation or species conservation (and often a mixture of both).

Outline what is meant by the terms:

Species Conservation

Habitat Conservation

2.

a) What does CITES stand for?

b) Outline the aim of CITES.

c) Species are group by CITES into three appendices. State the criteria for these:

Appendix I

Appendix II

Appendix III



3. Captive breeding facilities include zoos and aquaria as well as other specialised facilities.

a) Outline what the term "captive breeding programme" means.

b) Using the subheadings as a guide, evaluate the use of captive breeding programs

Examples of success stories

Difficulties in re-introduction to a habitat

Ethical objections to zoos

Financial cost

4. Summarise the function of seed banks



5.

a) State what is meant by "flagship species". Include examples.

b) Evaluate the use of flagship species for conservation. Use the subheadings as a guide.

Instant appeal

"Umbrella" effects

Prioritizing species

Dangerous animals

6.

a) Using examples, describe the term "keystone species".



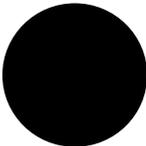
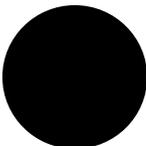
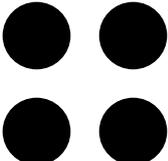
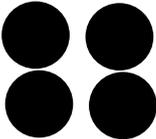
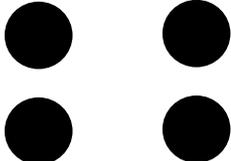
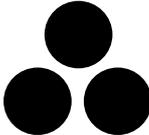
Approaches to conservation – Habitat Conservation

1. Explain what is meant by the term “habitat conservation”

2. Explain “edge effect” with regards to conservation areas.

3. The shape of a nature reserve is an important factor in how effective it is.

The shapes below represent the structure of a range of nature reserves. For each one, explain why one structure is an advantage over the other.

Better	Worse	Explanation
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3.

a) List any conservation areas in your country/state/region.

b) With reference to question 3, describe the shape of **one** of the nature reserves you listed in a):

c) It's impossible that a nature reserve could be the perfect shape/design. Briefly evaluate the shape of the nature reserve discussed in part b):



