

UNIT 1.3

TOURISM AND BIODIVERSITY

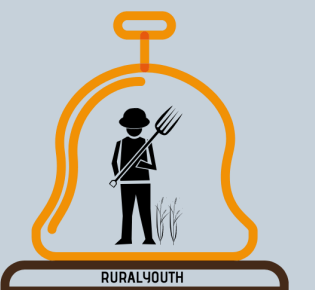
MODULE 1: RURAL TOURISM AWARENESS

OBJECTIVES

In Unit 3.3 you will learn about natural and biological diversity and its relation to tourism.

Keywords:

- biodiversity
- environmental impact
- pollution and waste
- overexploitation
- conservation



AT THE END OF THIS UNIT, YOU WILL BE ABLE TO...



Understand what is the relation between biodiversity and tourism



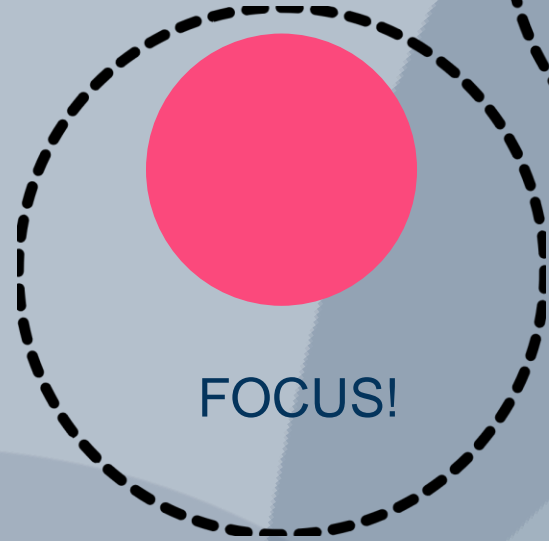
Explain the role of the tourism in protection of nature and its biodiversity



Understand how biodiversity and tourism affect each other



Understand the value of biodiversity for tourism



TOPICS

1. Tourism and biodiversity
2. The Value of Biodiversity for Tourism
3. Impacts of Tourism on Biodiversity
4. Role of the Tourism in Protection of Biodiversity

**There is something about
tourism and biodiversity...**



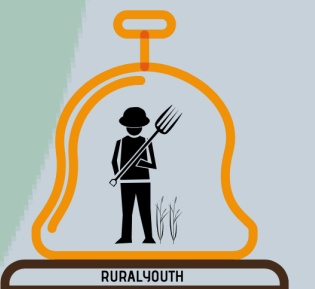
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Biodiversity is vital for tourism. Coasts, mountains, rivers and forests are important tourist destinations all over the world.

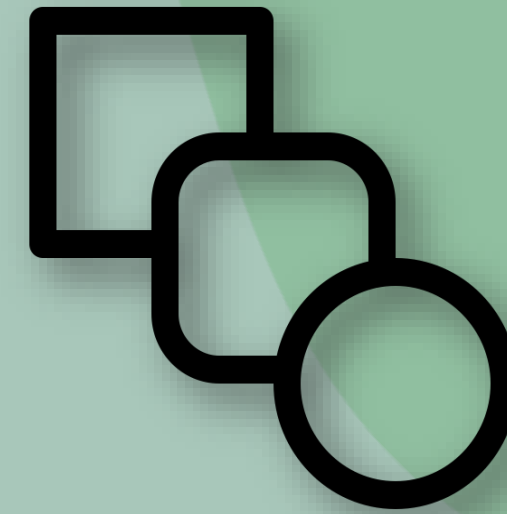
Biodiversity plays different roles in different forms of tourism. All forms of tourism - even in urban centres - rely on natural resources to provide food, clean water and other "ecosystem services" that ultimately depend on biodiversity. For most forms of tourism, biodiversity contributes significantly to the attractiveness and quality of destinations and thus to their competitiveness: for example, coastal water quality and natural vegetation are ecosystem services that contribute to attractiveness of the destination. And biodiversity is a direct attraction that supports nature-based tourism products - e.g. wildlife watching, diving or hiking in protected areas.



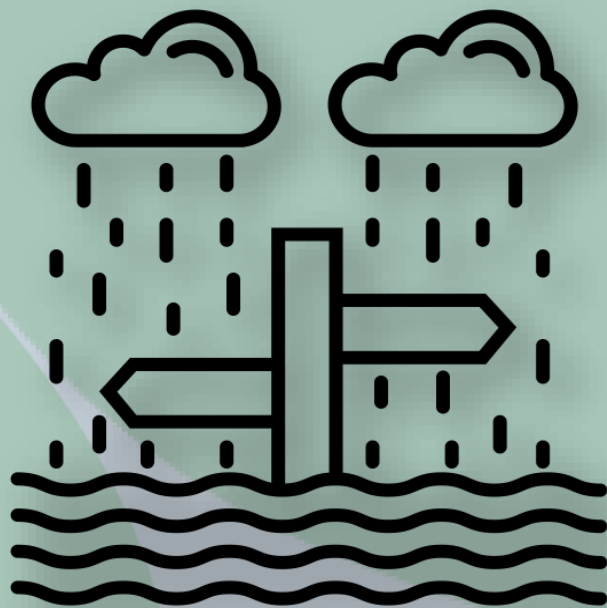
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However, biodiversity is under pressure globally and has suffered severe losses due to the conversion of more and more land from its natural state to human activity and the intensification of this activity. Land clearance for tourism development has contributed to these losses, particularly in coastal and mountain areas.

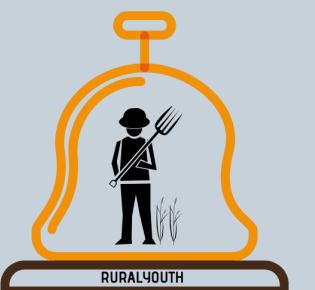


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Poor siting of development has resulted in damage to natural coastal defences, making coastal areas more vulnerable to storms, or damage to vegetation and soils in upland areas, making them more vulnerable to erosion and increasing the risk of flooding. The physical pressure of the many visitors who are interested in and want to visit places with high biodiversity but fragile environments also creates problems.



Healthy ecosystems provide us with ecosystem services.



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• **Provisioning services** - these include the supply of food, fresh water and raw materials such as fibre, wood and fuelwood.

• **Regulatory services** - these include maintaining soil fertility, pollinating crops by insects, regulating water flow, preventing erosion and controlling climate.



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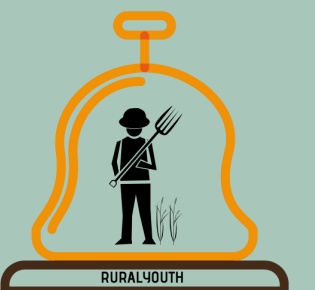
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• **Habitat services** - these maintain the genetic diversity of species and sustain their life cycles.

• **Cultural services** - these are intangible benefits which include recreation and tourism, education and spiritual experiences.



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RURAL4YOUTH

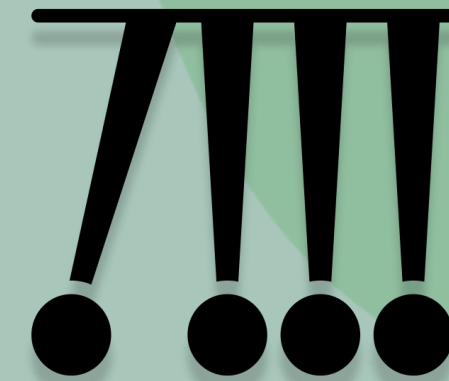
To help reverse the decline in biodiversity, the tourism sector and government bodies responsible for tourism face the following challenges:



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- applying existing guidelines, frameworks and best practices for biodiversity and ecosystem services in tourism;

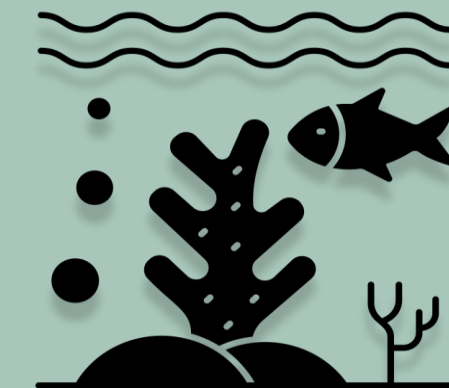
- understanding the negative impacts of tourism on biodiversity and how to avoid or minimize these impacts;



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- understanding the value of biodiversity to tourism and the potential of tourism to make a positive contribution to biodiversity conservation; and

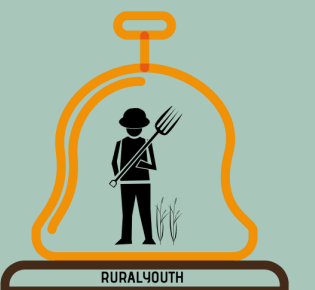
- integrating biodiversity considerations into tourism planning and decision-making.



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What is the Value of Biodiversity for Tourism?



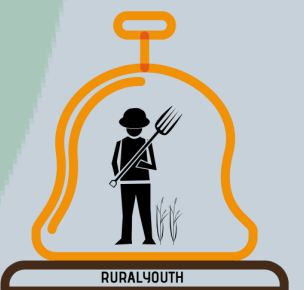
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The value of biodiversity for tourism and the associated services provided by healthy ecosystems is particularly high. For most tourists, holidays involve a range of activities and outdoor or nature-based activities that are based on high environmental quality, popularity and a recommendation (motivation) when choosing a holiday destination.

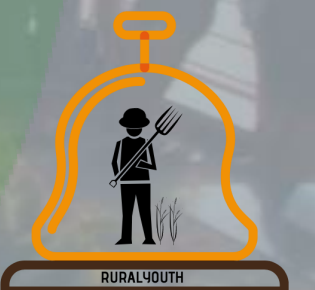


Tourism development (and growth) has considerable geographic overlap with areas of high biodiversity as well as areas of low human development.

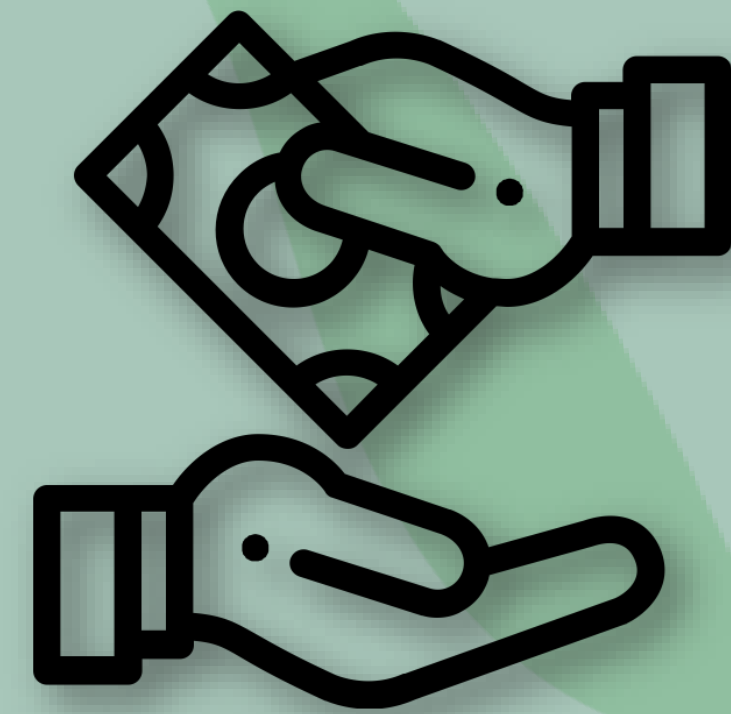
While not all tourism in high biodiversity areas is directly based on biodiversity, biodiversity is an important factor for a significant proportion of tourism in these areas.



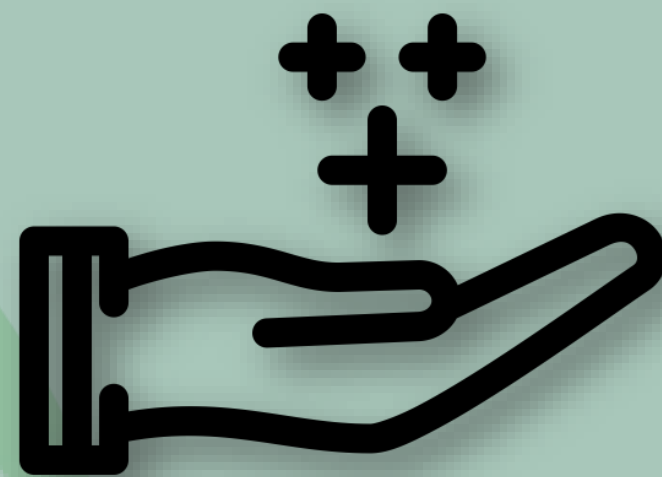
Good planning and effective management are essential to ensure that further tourism growth does not create negative social and environmental impacts, including on biodiversity.



From an economic point of view, the value of biodiversity to tourism consists of the price tourists pay for tourism based on the enjoyment of biodiversity and ecosystem services, their direct and indirect payments to other related businesses for the provision of supporting goods and services (e.g., food, transportation, etc.) and to the state through taxes for the provision of infrastructure, as well as the money spent by the employees of these tourism businesses and related businesses in the economy, since their employment and thus their expenditures depend on biodiversity-based tourism.

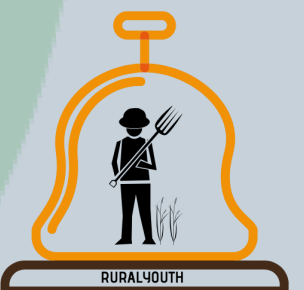


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It also includes the value that ecosystem services provide to tourism in general, such as freshwater supply and other resources, as well as the regulatory functions of ecosystems that help protect tourism assets from damage caused by extreme events, such as floods or severe storms. In addition, tourists' actual payments are often lower than they would be willing to pay, and this should be taken into account when assessing the value of biodiversity to tourism.



RURAL YOUTH

What are the Impacts of Tourism on Biodiversity?

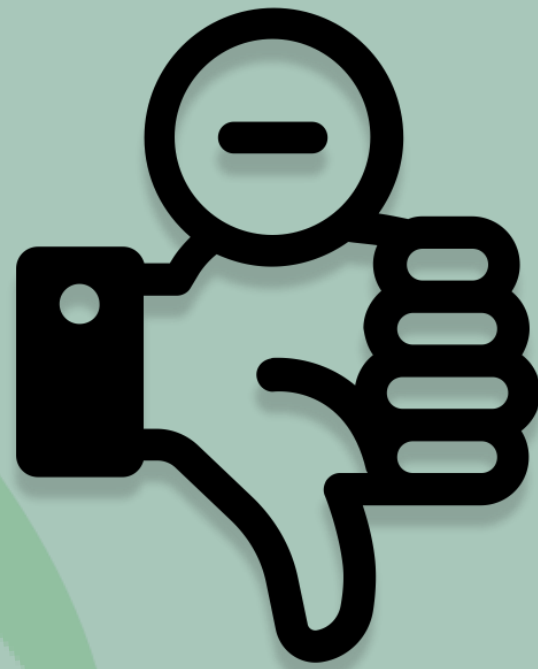


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Tourism has both positive and negative impacts on biodiversity. It can be a way to protect areas from other, more damaging forms of development and to provide an economic basis for investment in the protection and restoration of ecosystems, as well as to create local employment in areas where there is little other employment.

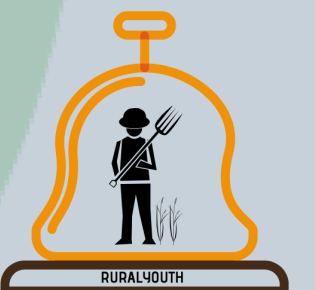


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Tourism also has serious negative environmental impacts due to the conversion of land for tourism purposes, the inappropriate siting of tourist sites, pollution and waste, the overexploitation of natural resources and the disturbance of wildlife. It can also have negative social impacts related to conflicts over resource use, clashes between tourists and local cultural norms and values, or related to working conditions and employment opportunities for local people in tourism enterprises.



RURAL4YOUTH

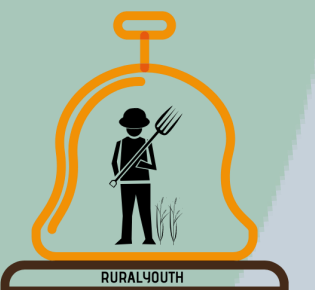
Negative impacts

Conversion of land for tourism

As tourism grows, more land is being used for tourism purposes - for example for more accommodation and tourism facilities such as golf courses or other facilities - and existing tourism areas are being used more intensively. The average growth rate of international tourism worldwide is 3-4% per year, although in many developing countries the growth rate is at least twice as high. Domestic tourism is likely to grow at a similar rate, perhaps even faster.

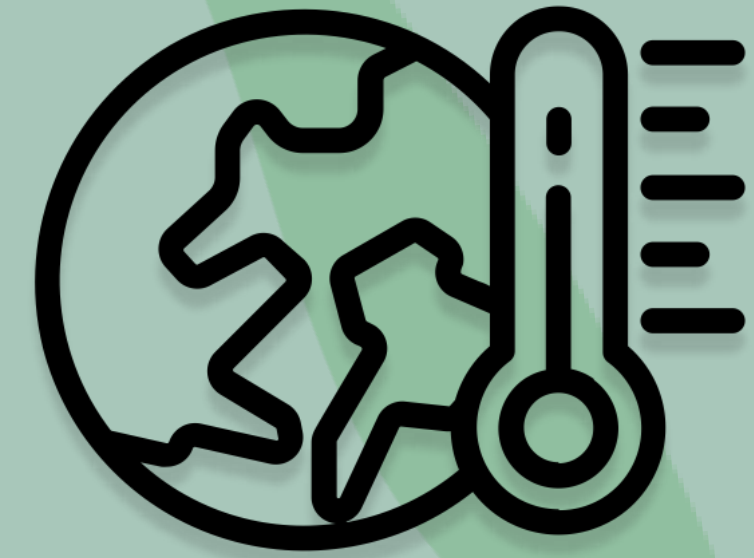


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Climate Change

Tourism contributes to anthropogenic climate change and the effects that climate change has on biodiversity distribution through changes in precipitation patterns, water availability, temperature and related factors. The tourism sector accounts for about 5% of global atmospheric carbon dioxide emissions. These emissions come mainly from air and land transport, which account for just over 70% of global tourism emissions, followed by emissions from tourist accommodation at 21%.

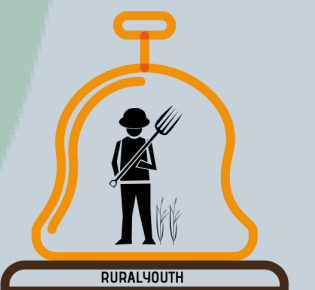


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There is also a risk that adapting the tourism sector to the impacts of climate change will increase pressures on biodiversity as tourism patterns change, including expansion into new areas. Reducing carbon emissions remains a priority for the tourism sector, both through more efficient use of energy and through increased use of renewable energy sources.

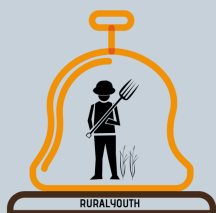


Overexploitation of natural resources for food, materials, fresh water and recreation

When resources are exploited faster than they can be replenished through natural cycles of reproduction or replenishment, this is called overexploitation. An example of this is the world's fish stocks, where most of the world's major fisheries are damaged by overfishing.

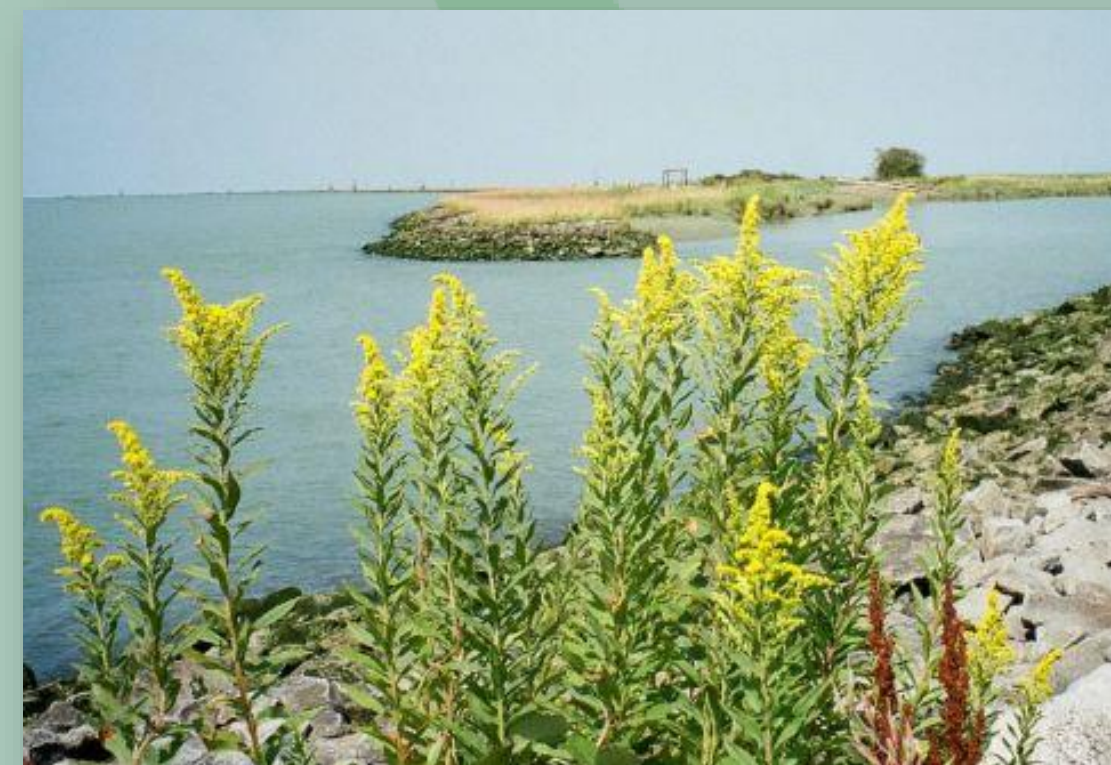
The tourism sector has a high demand for natural resources, including food (especially seafood) and materials perceived as luxury or prestige goods, large quantities of fresh water for hotels, sports grounds and landscape areas, and access to natural recreation areas.





Introduction of invasive alien species

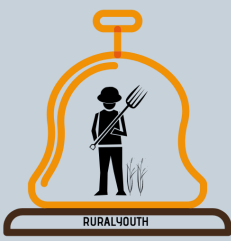
Invasive alien species act as heavy weeds and pests when introduced into areas outside their natural range. As a result, they can clog waterways, destroy native ecosystems and damage economically important resources. The tourism sector itself can also be a source of introduction of invasive species, for example through the use of some attractive but invasive species, such as water hyacinth, in gardens and landscaped areas.



Pollution

Pollution from wastewater, including sewage and solid waste from tourism, and the use of fertilisers and pesticides at tourism sites such as sports grounds and landscape areas can have negative impacts on biodiversity. Solid waste management is also inadequate in many tourist destinations and waste is discharged into the environment.

environment, harming wildlife. The use of fertilisers on sports pitches and landscaped areas can also have a negative impact on water quality in catchments and together with pesticides can harm native vegetation and wildlife.



Disturbance of wild fauna and flora

Many animal and plant species are sensitive to disturbance caused by human activities:



- vegetation in mountains or coastal dunes is damaged by trampling and can be completely destroyed in highly visited areas, putting them at risk of erosion.



- animals can be affected in many ways by disturbance caused by tourism. For example, predators have less success hunting when there are many tourists and tourist vehicles around.



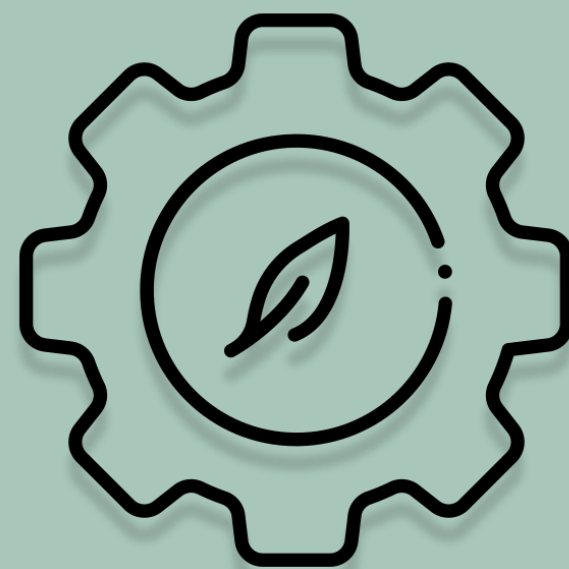
- disturbance also reduces breeding success for most species.

The negative effects of tourism can be reduced by a number of simple measures, including:



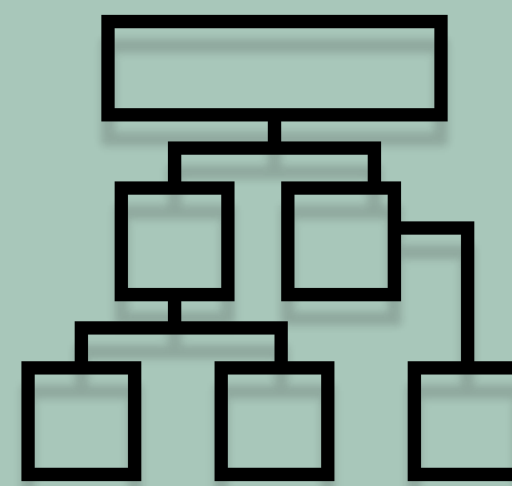
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- planning controls to protect important biodiversity sites and sensitive areas from tourism development.



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- applying environmental management practices to reduce waste and properly treat and dispose of remaining waste.



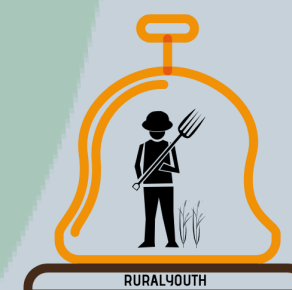
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- implementing sustainable schemes to purchase products only from sustainable sources.



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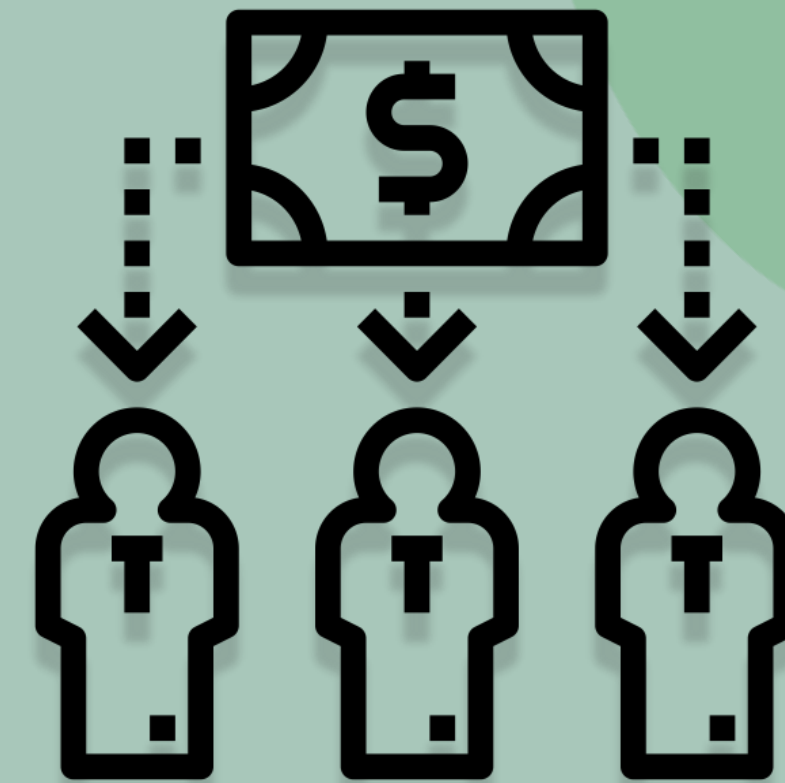
- managing tour groups to minimise disturbance to wildlife.



Positive impacts

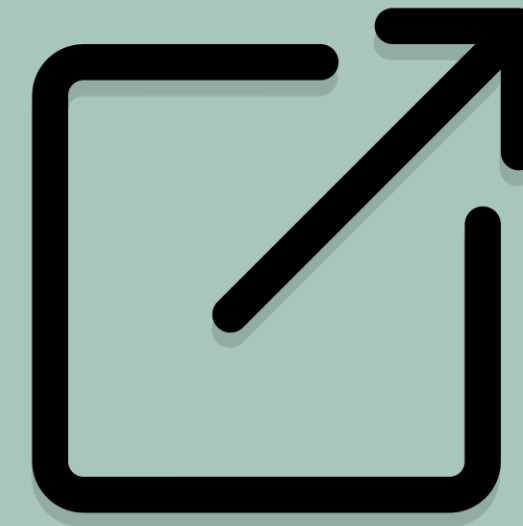
Employment and economic development

According to the UNWTO, tourism provides more than 75 million direct jobs worldwide. Many of these jobs are linked to the attraction that high quality environments generally have for tourists, in addition to those associated with destinations where nature-based tourism is the main attraction. The income and local employment generated by biodiversity-based tourism can create a strong incentive for communities, local authorities and governments to protect and invest in biodiversity.

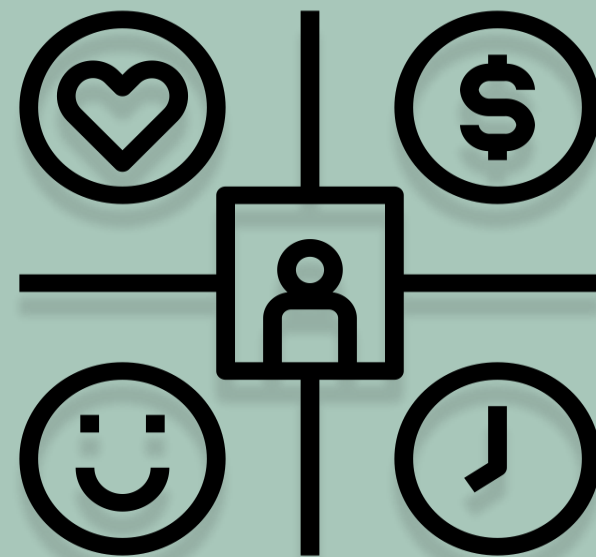


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Export earnings
Tourism is a major source of export earnings in many countries, where the dominant tourism activities are based on biodiversity and high-quality ecosystem services.



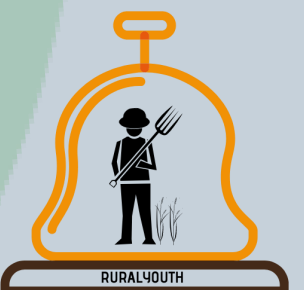
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Income for management of protected areas

Revenues from entrance and user fees in protected areas and parks provide funds that can be used for their management.

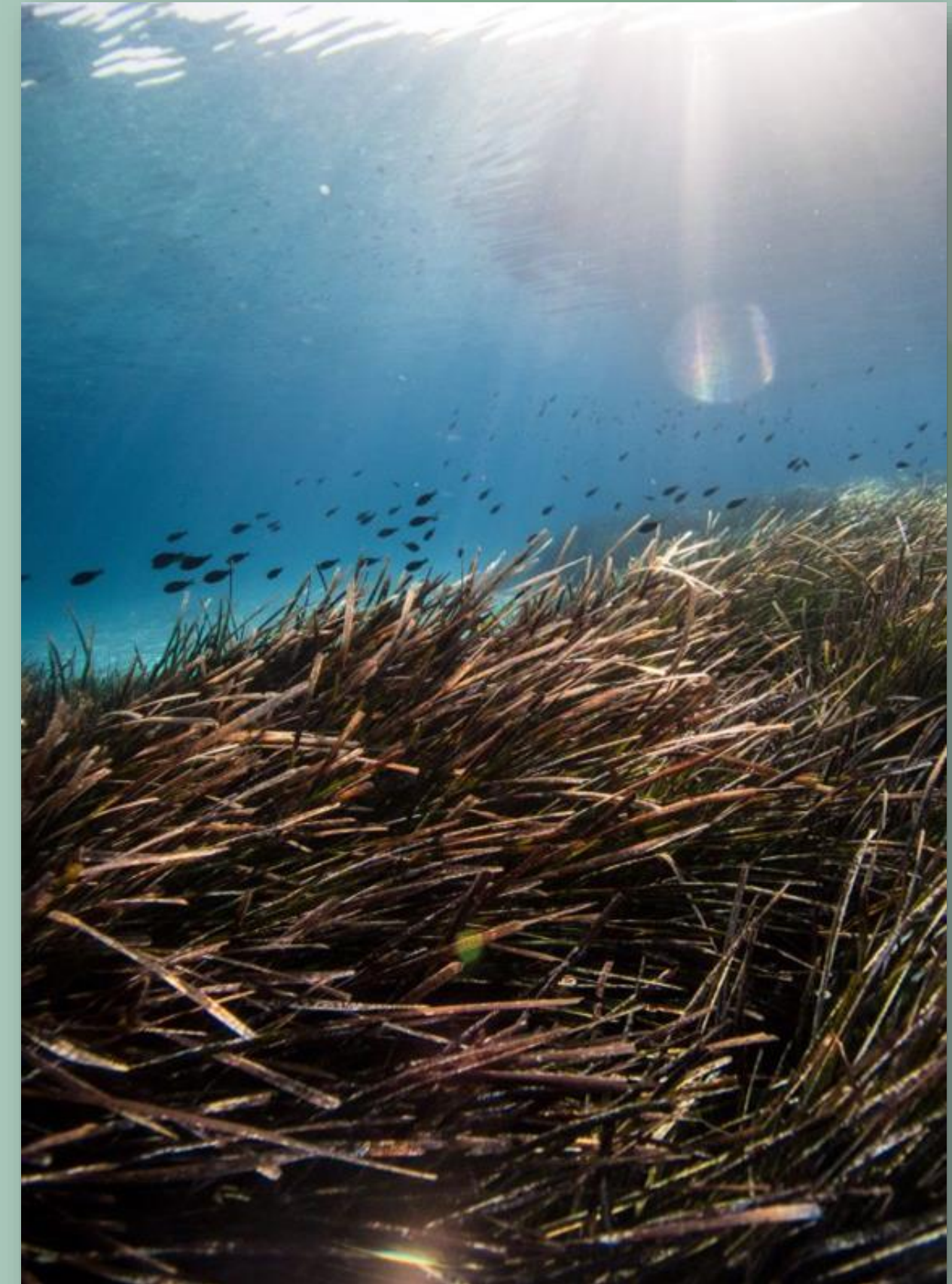




Raising awareness amongst tourists of biodiversity and the need for conservation

The experience of biodiversity and high quality environments can increase the understanding of and support for biodiversity conservation amongst tourists.

Achievement of the positive impacts of tourism requires careful planning, and regular dialogue with local stakeholders during the planning and operation of tourism developments and activities..



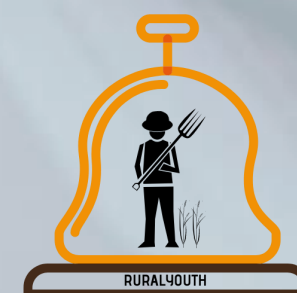
What is the Role of Tourism in Protection of Biodiversity?



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Development planning and control are critical to tourism sustainability and biodiversity conservation, as they affect not only tourism development itself, but also the management of other forms of development that may harm the economic sustainability of tourism in the short or long term.

Biodiversity conservation in the context of tourism requires planning and developing tourism in ways that take full account of biodiversity and keep sensitive areas free from development, and the management and operation of tourism to prevent or minimize harm to biodiversity while maximizing the benefits that tourism can provide for biodiversity conservation.



Examples of measures that tourism businesses are already taking or could take to help promote and conserve biodiversity include:



- ensuring that tourism activities are well managed and do not harm or disturb wildlife and its habitats;

- reducing pollution from tourism activities, in particular by ensuring that all liquid and solid waste is handled and disposed properly in a way that does not harm biodiversity, and by minimizing the use of pesticides, fertilizers and toxic chemicals;

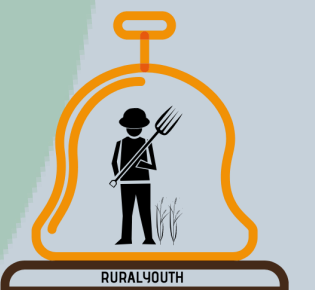


- that all food and other biological resources used in tourism activities come from sustainable sources;



- work with suppliers and other partners to improve the sustainability of the resources purchased from them;

- create wildlife and natural habitat areas in tourism sites;



- establishing community-based protected areas and co-management systems through which local communities lease their biodiversity assets for tourism activities, and which integrate tourism into sustainable land-use management;



- support for biodiversity conservation by public authorities and NGOs in tourism areas through practical measures, including financial contributions, for example through sponsorships and voluntary donations;

- avoidance of threatened habitats or sensitive areas in the development of tourism activities and facilities;



- ensuring that invasive alien species are not introduced through tourism activities;

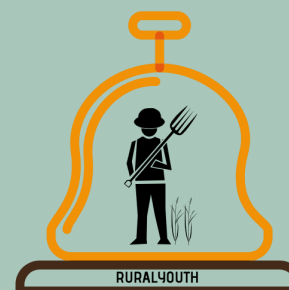
- ensuring that threatened or endangered species are not endangered by tourism activities or included in the tourism supply chain (particularly as food or souvenirs);



- use the communication and marketing strengths of the tourism sector to raise awareness among tourists and destination authorities of the value of biodiversity and the measures they can take to protect it.

We should preserve every scrap of biodiversity as priceless while we learn to use it and come to understand what it means to humanity.

- *E. O. Wilson*





SURF
TO FIND OUT
MORE



Watch the TED talk about how the tourism industry can be responsible for its environmental footprint | Sean Nino



Massive vines that blanket the southern United States, climbing high as they uproot trees and swallow buildings. A ravenous snake that is capable of devouring an alligator. Rabbit populations that eat themselves into starvation. These aren't horror movie concepts – they're real stories. But how could such situations exist in nature? Jennifer Klos gives the facts on invasive species.



It is estimated that by 2050 30% of the world biodiversity may be extinct. Sustainable development and reduced land conversion are currently promoted as the number one way to slow climate change and halt the ever increasing mass extinctions occurring across the globe. Can people have a positive impact on biodiversity? | Kina Murphy



Convention on biological diversity is a web portal with variety of important information. Read more about Biodiversity and Tourism Development in the Guidelines.

MATCH THE PARAGRAPHS!



Even species that aren't at immediate risk of extinction are thinning out, and...

... new protections and better enforcement of the existing ones.

Biodiverse and intact ecosystems form...

...a key foundation for many areas of the tourism economy.

The quality of human life should be improved while...

... and that imperils other species that depend on them.

To sustain the earth's biodiversity, we'll need...

...conservancies can bolster the local economy while providing extra land for wildlife.

By attracting tourists and encouraging them to stay longer...

...living within the carrying capacity of supporting ecosystems and maintaining the quality of the environment in its entirety.

TEST YOUR KNOWLEDGE!



1. What is biodiversity?

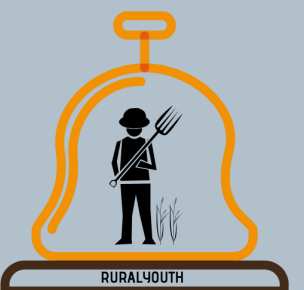
- a) It is environmental science.
- c) It is varieties of life on earth.**
- b) It is subject in biology.
- d) is distinction in biology subject.

2. In some areas there is an exceptionally high level of biodiversity and this area is called as _____.

- a) cold spot
- c) population spot
- b) hot spots**
- d) none of above

3. Some species are very rare and can be found in a particular ecosystem, these species are called _____.

- a) extinct species
- c) endemic species**
- b) special species
- d) pandemic species



4. One of the phenomena below is not a threat to biodiversity:

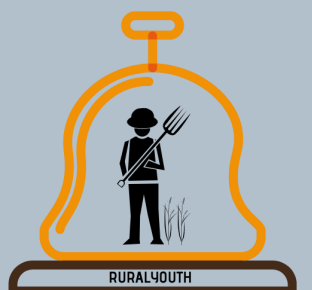
- a) Pollution
- c) High human population
- b) Cell phones
- d) Natural calamities**

5. Below is one of the reasons for the loss of biodiversity

- a) Eating more food by humans
- c) Drinking more water by humans
- b) Global ecosystem
- d) Exotic species**

6. Hiking and sightseeing are an example of _____ ecological service

- a) Cultural**
- c) Regulatory
- b) Supportive
- d) Provisional



7. One of the answers below is not a part of biodiversity:

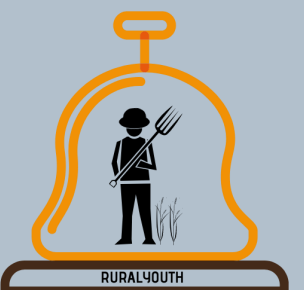
- a) humans
- c) monkey
- b) cell phone**
- d) birds

8. _____ occurs when a large number of species goes extinct over a relatively short period of time.

- a) Extirpation
- c) Extinction
- b) Mass Extinction**
- d) Mass Effect

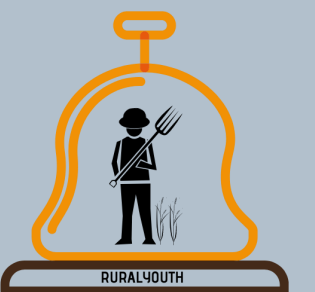
9. Which of the following habitat have most biodiversity?

- a) Antarctica
- c) Sahara Desert
- b) Amazon rainforest**
- d) North pole



DISCUSSION

1. Describe the biodiversity in your local area.
2. Do you know any endangered species living in your local area? Name them.
3. Have to local government taken any measures to protect them?
4. Do these measures affect the tourism in your area?



SUMMARY

- In this unit, you have learned about the overall importance of biodiversity and how it is related to tourism. You have learned the possible ways to help reverse the decline in biodiversity and you have also discovered how to reduce some of the negative effects of tourism.
- Watch this [video](#) to immerse yourself in the beauty of our planet. Think of the species you like that are present in your country/local area. Are any of them rare?
- In Unit 1.4 you will learn about all of the different types of tourism. You will discover the negative impacts of mass tourism as well as positive impacts of some more sustainable types of tourism. You will also get to know the term Anti-tourism.

