

FOR THE
IB DIPLOMA
PROGRAMME



Environmental Systems and Societies

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SAMPLE

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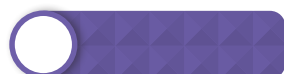
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Online content

Go to our website www.hoddereducation.com/ib-extras for free access to the following:

- Theme 9 HL extension lenses (environmental law, economics and ethics)
- Answers to review questions and exam-style questions

Introduction

Welcome to *Environmental Systems and Societies (ESS) for the IB Diploma*, designed to meet the criteria of the new International Baccalaureate (IB) Diploma Programme ESS Guide. This coursebook provides complete coverage of the new IB ESS Diploma syllabus, with first teaching from 2024.

Differentiated content for SL and HL students is clearly identified throughout.

Three key concepts comprise the foundation subtopics of Theme 1: Foundation and should be taught at the start of the course:

- Perspectives: The concept of perspectives provides a deeper understanding of worldviews, individual perspectives and their related value systems.
- Systems: Systems theory provides a useful tool for holistic analysis, and gives insight into understanding the mechanics and purpose of human-constructed systems and the function of natural ones
- Sustainability: The concept of sustainability is central to ESS. Resource management issues are pivotal to sustainability, and students' attention is drawn to this throughout the course.

Taken from IB Diploma Programme Environmental systems and societies Guide, page 7

Environmental systems and societies (ESS) aims to empower and equip students to:

- 1 develop understanding of their own environmental impact, in the broader context of the impact of humanity on the Earth and its biosphere,
- 2 develop knowledge of diverse perspectives to address issues of sustainability,
- 3 engage and evaluate the tensions around environmental issues using critical thinking,
- 4 develop a systems approach to provide a holistic lens for the exploration of environmental issues,
- 5 be inspired to engage in environmental issues across local and global contexts.

Taken from IB Diploma Programme Environmental systems and societies Guide, page 19

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How to use this book

The following features will help you consolidate and develop your understanding of ESS, through concept-based learning.

Key terms

◆ Definitions appear throughout the margins to provide context and help you understand the language of ESS. There is also a glossary of all the key terms at the end of the book.

Common mistake

To help you avoid falling into regular misunderstandings.

TOK

Links to Theory of Knowledge (TOK) allow you to develop critical thinking skills and deepen your understanding by bringing discussions about the subject beyond the scope of the content of the curriculum.

Link

This feature allows links to be made between different parts of the course, framed using levels of organization and concepts, helping you to form a holistic appreciation of material in the syllabus. Because of the interdisciplinary nature, some context may be required.

Guiding questions

- The key prompts from the ESS Guide to help you view the content through the required conceptual lenses.

SYLLABUS CONTENT

- ▶ This coursebook follows the exact order of the contents of the IB ESS Diploma syllabus.
- ▶ Syllabus understandings are introduced naturally throughout each topic.

ATL ACTIVITY

Approaches to learning (ATL), including learning through inquiry, are integral to IB pedagogy. These approaches-to-learning skills activities get you to think about real-world situations.

Concept

Highlighting the links to the three themes that underpin the ESS for the IB Diploma course (perspectives, systems and sustainability).

REAL-WORLD EXAMPLE

An opportunity to apply the topic/concept being explored.

Tool

The Tools features explore the skills and techniques that you require and are integrated into the ESS content to be practised in context. These skills can be assessed through internal and external assessment.

REVIEW QUESTIONS

Formative questions to provide students with the opportunity to test their knowledge.

EXAM-STYLE QUESTIONS

Prepare students for assessment with questions designed to test understanding and knowledge in the format of the exam.

HL lenses

Cover and link to the main content of the HL extension lenses (HL.a, HL.b and HL.c).



Skills are highlighted with this icon. You are expected to be able to show these skills in the examination, so we have explicitly pointed these out when they are mentioned in the Guide.



International mindedness is indicated with this icon. It explores how the exchange of information and ideas across national boundaries has been essential to the progress of knowledge.



The IB learner profile icon indicates material that is particularly useful to help you towards developing the following attributes: to be inquirers, knowledgeable, thinkers, communicators, principled, open-minded, caring, risk-takers, balanced and reflective. When you see the icon, think about what learner profile attribute you might be demonstrating – it could be more than one.



Theme 1

Foundation

Guiding questions

- How do different perspectives develop?
- How do perspectives affect the decisions we make concerning environmental issues?

SYLLABUS CONTENT

This chapter covers the following syllabus content:

- ▶ 1.1.1 A perspective is how a particular situation is viewed and understood by an individual. It is based on a mix of personal and collective assumptions, values and beliefs.
- ▶ 1.1.2 Perspectives are informed and justified by sociocultural norms, scientific understandings, laws, religion, economic conditions, local and global events, and lived experience, among other factors.
- ▶ 1.1.3 Values are qualities or principles that people feel have worth and importance in life.
- ▶ 1.1.4 The values that underpin our perspectives can be seen in our communications with and actions in the wider community. The values held by organizations can be seen through their advertisements, media, policies and actions.
- ▶ 1.1.5 Values surveys can be used to investigate the perspectives shown by a particular social group towards environmental issues.
- ▶ 1.1.6 Worldviews are the lenses shared by groups of people and through which they perceive, make sense of and act within their environment. They shape people's values and perspectives through culture, philosophy, ideology, religion and politics.
- ▶ 1.1.7 An environmental value system is a model that shows the inputs affecting our perspectives and the outputs resulting from our perspectives.
- ▶ 1.1.8 Environmental perspectives (worldviews) can be classified into the broad categories of technocentric, anthropocentric and ecocentric.
- ▶ 1.1.9 Perspectives and the beliefs that underpin them change over time in all societies. This can be influenced by government or NGO campaigns, or through social and demographic change.
- ▶ 1.1.10 The development of the environmental movement has been influenced by individuals, literature, the media, major environmental disasters, international agreements, new technologies and scientific discoveries.

Note: There is no additional higher level content in 1.1.

1.1.1 A perspective is how a particular situation is viewed and understood by an individual, based on assumptions, values and beliefs

Concept

Perspectives

According to the Britannica Dictionary, a **perspective** is 'a way of thinking about and understanding something (such as a particular issue or life in general)'. To define it further, we need to view issues from a different point of view, one that emerges from a wide range of factors and different circumstances: life experiences, **personal assumptions**, scientific understanding, **economic status**, **ethical beliefs**, and **personal values**.

- ◆ **Perspective** – a point of view; a particular way of seeing or considering something.
- ◆ **Personal assumptions** – made up of our beliefs and preconceptions, which are based on our previous experiences as well as our cultural background and the education with which we have been provided. For instance, someone who has grown up in a rural area may have a different perspective on the importance of protecting natural resources, as well as being more aware of the source of food, or how necessary it is to drive a car, than someone who has grown up in an urban area.
- ◆ **Economic status** – an individual's income and occupation. For example, a person with a high income may have a different perspective on the importance of economic growth than someone with a lower income.
- ◆ **Ethical beliefs** – the moral principles and values that an individual holds. For example, a person with strong religious beliefs may have a different perspective on the morality of certain actions than someone without strong religious beliefs.
- ◆ **Personal values** – can include beliefs about the importance of family, community and personal responsibility. For example, an individual with a strong sense of community may have a different perspective on the importance of protecting the environment than someone who places a higher emphasis on individual rights.

People should reflect on their own perspectives while they acquire in-depth knowledge on a particular issue. One relevant example is the issue of rising sea levels and the impact of these on several countries' future existence.

REAL-WORLD EXAMPLE

The Maldives

The Maldives is an archipelago located in the Indian Ocean, which faces unique environmental and social challenges due to its geographical characteristics.



■ **Figure 1.1** The Maldives is an archipelago located in the Indian Ocean

In the Maldives, rising sea levels pose a significant threat to the country's very existence. The Maldives is known for its low-lying islands, with the highest point only a few metres above sea level. As global sea levels rise due to climate change, the Maldives is becoming increasingly vulnerable to coastal erosion, flooding and saltwater intrusion into freshwater sources.

People from the Maldives, especially those living in the coastal areas, have a unique perspective on climate change and its consequences. They witness the immediate effects of sea-level rise on their livelihoods, land and homes. Scientists predict that sea level might rise up to 0.9 cm a year. Their perspective is rooted in the fear of losing their homes and way of life due to the encroaching ocean. On the other hand, people from regions less affected by rising sea levels may have a different perspective. While they may also be concerned about the overall impact of climate change, they might not fully grasp the urgency and personal implications that the Maldivians are facing. The severity of the issue might not resonate as deeply, as it doesn't directly threaten their immediate surroundings.

When individuals from different regions come together to discuss climate change and its impacts, the perspectives from the Maldivians can highlight the urgency of the situation and the need for global cooperation and climate action. At the same time, it can help others empathize and understand the gravity of climate change on a more personal level, rather than just as an abstract concept. This understanding can lead to better-informed discussions, and collaborative efforts to address the environmental and social challenges posed by climate change.

1.1.2 Perspectives are informed and justified by many different factors

Understanding the arguments that support a viewpoint can assist us in critically evaluating that viewpoint, and developing our own informed viewpoint and conclusions.

◆ **Worldview** – a broad and comprehensive framework that shapes people's perceptions and understandings of their surroundings as well as their actions.

TOK

You may remember from Theory of knowledge (TOK) courses that the relativist view of truth is discussed to promote tolerance. However, this may not help us to arrive at a conclusion. According to this view, the truth of a statement is relative to a particular perspective. All views are usually relevant to their contexts, and we would be in a better position to understand them if we try to listen to the different perspectives underlying them.

Link

Three areas where we can observe perspectives that range from relativism to absolutism are religion, politics and history. We should be aware of the national and political interests in the writing of history, for instance.

Common mistake

An argument is not the same as a perspective. A perspective is an individual's unique understanding. A perspective is shaped by the individual's beliefs and experiences, and influences how they perceive information. It shows a broader worldview. By contrast, arguments are statements made to support a personally held perspective or to counter a different one. An argument is a focused presentation of reasons and evidence aimed at supporting a specific viewpoint or countering an opposing one. Arguments arise from perspectives, serving as tools to express and defend a particular stance within a broader outlook.

Local events, such as community gatherings, cultural celebrations, or even local political decisions, can shape our perspectives by exposing us to diverse viewpoints within our immediate surroundings. Attending a town hall meeting or engaging in a community debate allows us to hear different arguments and to gain a deeper understanding of the issues affecting those around us. These experiences can either reinforce our existing perspectives or open our minds to new possibilities.

On the other hand, global events have a far-reaching impact on our perspectives and the arguments we formulate. Events like international conflicts, economic crises, or advancements in science and technology can shift our **worldview** on a broader scale. Access to global news and information allows us to comprehend how interconnected the world is and how decisions made in one part of the world can have repercussions in another.

One such issue is climate change. Local events like extreme weather patterns in our region can directly influence our perspectives on the urgency of environmental action. Simultaneously, global events, such as international climate summits or reports on rising sea levels in distant countries, can provide a broader context and reinforce the need for a collective response to this global challenge.

The more we learn and the deeper our understanding, the more our opinions develop and thus our perspectives widen. Sometimes, our personal perspective can help us empathize with others. At other times, it can prevent us from understanding their position, or even wanting to. Our perspectives and individual knowledge develop our life experiences, however. Our perspectives are shaped by some factors, including our own personal assumptions, scientific understandings, economic conditions, ethical beliefs and personal values. Then we try to justify our positions using arguments based on ethics, logic, religion, politics or pragmatism.

One of the numerous benefits of supporting diversity in all parts of society is that it allows everyone to meet, respect and learn from people who have different views, experiences and viewpoints.

As another point of view, cultural relativism may help us to become more respectful to different cultural and religious perspectives. This is since according to relativism, no one set of cultural values is better than another. This supports the idea that all cultural perspectives are equally valuable and valid.

People all come from different communities and have had varied life experiences. This means that we should improve our knowledge and comprehension of different perspectives in order to develop stronger arguments. We must also become more conscious of our own prejudices, assumptions and perspectives, which are influenced by where and when we live, the communities we belong to, and even the language we use. Cross-checking knowledge claims will undoubtedly help us to obtain actual information and hence grow more confident in our own understanding.

Ethical beliefs are another factor that may shape our perspectives. Ethics refers to moral principles and ideals. Ethical debates may centre on the morality of a certain action or choice. For example, an ethical principle that says all living things have a right to exist would require an argument that deforestation is wrong. Another argument that says renewable energy is a better option than burning fossil fuels would be based on the logic that renewable energy is a more sustainable option.

Arguments that are made using critical thinking would focus on the logical consequences of particular actions or decisions. An argument based on religion would focus on the spiritual ramifications of a particular action or choice. For example, a religious conviction that all living things have a soul may underpin an argument that animals should not be exploited for food.

◆ **Pragmatism** – a philosophical approach that relates to utility and practicality.

Pragmatism, as a philosophical approach, relates to utility and practicality. Furthermore, pragmatist arguments would focus on the practical repercussions and usefulness of a specific activity. An argument for recycling, for example, could be based on the pragmatic conclusion that recycling conserves resources and decreases waste.

1.1.3 Values are qualities or principles that people feel have worth and importance in life

The three types of values are moral, personal and societal values. These values are influenced by our cultural background, religion, family, education and experiences. Values are significant in this sense because they shape how people perceive the world around them. Values can guide us to take actions that align with our values, regardless of the external circumstances. For example, someone who values environmental conservation may choose to purchase a hybrid car despite the fact that it is more expensive.

Values are qualities and ideas that we feel are important in our lives and that might influence how we interact with one another in the community. Individuals who share similar ideals are more likely to form strong bonds. This also encourages collaboration towards common goals.

Furthermore, values might influence our perspectives and choices. A person who values sustainability, for example, may have a different perspective on government rules and policies than someone who values economic growth.

Everyone should be conscious of their own values and how they influence their perceptions, behaviours and decisions. It is equally critical that we understand and appreciate the values of others, even if they differ from our own, in order to build a diverse and globalized society based on effective communication, understanding and respect.

◆ **Intrinsic value** – the value that a thing has in and of itself. Intrinsic value does not depend on whether a thing is useful or beneficial to people.

For instance, in the context of environmental ethics and conservation, **intrinsic value** is often associated with the inherent worth of the natural world and its components, such as ecosystems, species or individual organisms. It suggests that these entities have value and deserve moral consideration simply because they exist and have their own inherent characteristics, rights and dignity.

The recognition of intrinsic value in nature has implications for environmental ethics and conservation practices. It implies that nature should be protected not solely for its instrumental value to humans, but also due to the ethical responsibility to preserve it for its own sake. This perspective underpins conservation efforts aimed at preserving biodiversity, ecosystems and ecological integrity.

1.1.4 The values that underpin our perspectives

In our interconnected world, our values shape not only our individual perspectives but also our communication and actions within the wider community. Moreover, organizations play a significant role in society, and their values can be observed through various channels such as advertisements, media representations, policies and actions. Understanding the underlying values behind our perspectives and those held by organizations is important for navigating the complexities of environmental issues and sustainability.

■ The values that underpin our perspectives can be seen in our communication and actions within the wider community

Values are deeply rooted beliefs that guide our thoughts, decisions and behaviours. They form the foundation of our perspectives on environmental, social and ethical issues. By examining our values, we can gain insight into why we communicate and act in particular ways within the wider community. For instance, by examining our values of equality and justice, our communication and actions may prioritize inclusivity and fairness in addressing environmental challenges.

If we value collaboration and empathy, we may engage in open and respectful dialogue, seeking common ground for collective environmental solutions. Alternatively, if we value competition and self-interest, our communication may be more confrontational or centred on personal gain.

In addition to this, our actions often speak louder than words and reveal our true values. Whether it's participating in environmental protests, volunteering for conservation initiatives or making sustainable choices in our daily lives, our actions reflect our commitment to certain values. By observing the actions of individuals, we can gain insights into their environmental consciousness and priorities.

■ The values held by organizations can be seen through advertisements, media, policies and actions

Organizations convey their values through their advertisements and media representations. Advertisements, whether in print, on television or online, reflect the values that companies wish to associate with their products or services. For example, an advertisement promoting a sustainable lifestyle may signal an organization's commitment to environmental responsibility. Similarly, media representations of organizations can shed light on their values by highlighting their environmental initiatives, ethical practices or community engagement.

An organization's values are often embedded in its policies and guidelines. By examining these documents, we can gain an understanding of the organization's stated priorities and principles. For instance, an organization with a strong commitment to sustainability may have policies promoting waste reduction, renewable energy use or ethical sourcing practices. Policies can provide insights into how organizations translate their values into tangible actions.



HL.a.12: Environmental law

Legal and economic strategies for sustainability. Achieving sustainability involves both legal and economic approaches. For instance, laws imposing fines for illegal dumping align with ethical concerns for responsible resource use. Simultaneously, economic strategies attach value to ecosystem services, connecting ethical considerations with economic incentives for sustainable practices.



Like individuals, however, organizations are judged by their actions. Whether it is implementing sustainable practices, engaging in community outreach or supporting environmental causes, an organization's actions reflect its values. For instance, a company that actively supports environmental conservation through donations or partnerships demonstrates a commitment to environmental stewardship. By analysing the actions of organizations, we can evaluate the alignment between their stated values and their real-world impact.

Different values often lead to tensions both between individuals and between organizations. These tensions can arise when the actions taken by one entity are perceived as conflicting with the values of another. For example, in the context of environmental issues, a company that prioritizes economic growth and profitability over environmental concerns might face criticism and tension from environmental advocacy groups or individuals who prioritize conservation and sustainability.

Similarly, within organizations, employees may hold diverse values and beliefs, which can lead to conflicts over the direction the organization should take. For instance, employees who advocate for stronger social responsibility initiatives might clash with those who prioritize cost-cutting measures, leading to internal tensions.

Furthermore, disagreements between organizations can arise due to differences in their core values and priorities. For instance, in the realm of sustainability, organizations focused on immediate profit generation might be at odds with those dedicated to long-term environmental preservation and social welfare. These differing values can lead to competition, conflicting interests or even public disputes between organizations.

In such scenarios, open dialogue and understanding each other's perspectives become crucial in finding common ground and possible areas of collaboration. By acknowledging and respecting the different values held by individuals and organizations, it becomes possible to bridge gaps, address tensions, and work towards collective solutions to environmental and social challenges. Additionally, transparency in actions and decision-making processes can help build trust and foster a more constructive approach to resolving conflicts arising from differing values.

1.1.5 Values surveys for investigating perspectives towards environmental issues

You should be familiar with how to carry out surveys of a particular social group to identify perspectives towards a specific environmental issue, and with how to evaluate the likely impact of these values.

Values surveys are a tool for investigating the perspectives of a specific social group. These surveys seek to identify the values and beliefs that shape a group's perspectives on a specific environmental issue.

A values survey normally begins with the selection of a specific social group. Then a set of survey questions is developed to probe that particular chosen group's values and beliefs, and finally the collection and analysis of data takes place. The survey questions are designed to collect information about how the group views the current environmental issue, as well as what factors impact their opinion.

Environmental Protection vs. Economic Growth

Share of U.S. adults that think the environment should be prioritized over the economy and vice versa

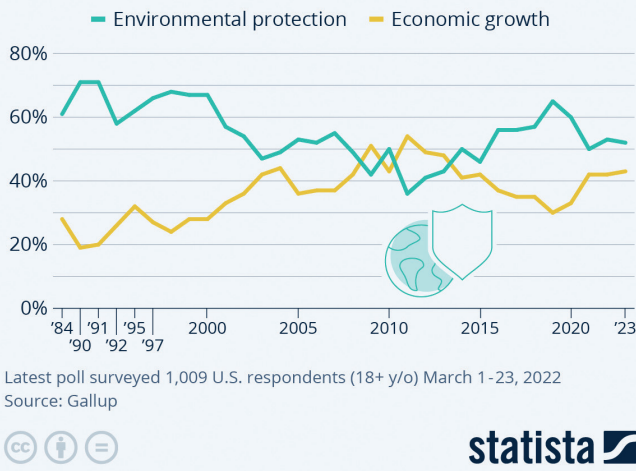


Figure 1.2 Survey results showing prioritization of environmental protection over economic growth (source: Gallup/Statista)

A values survey on a specific environmental issue, such as deforestation, could help to obtain data on the group's beliefs about the necessity of safeguarding natural resources, the moral consequences of clearcutting forests, and the economic rewards of logging.

After collecting the survey data, this can be analysed to identify patterns and trends in the group's perspectives. This can provide insight into how the group's values and beliefs are likely to impact the environmental issue at hand.

For example, a fierce debate in people's minds in the United States is between prioritizing the environment (even at the cost of slowing economic growth) or the economy (even if the environment suffers). This debate has alternated a lot back and forth over the last few decades. According to Gallup survey data in the 1980s and 1990s, the environment was the obvious winner in this moral quandary when seen nationally. This, however, began to alter as the new millennium began.

As the infographic in Figure 1.2 shows, the conflict between the two intensified in the United States as the impacts of the 2008 financial crisis began to bite. In March 2009, the economy had moved to the forefront of most people's attention, with a majority (51 per cent) choosing the economy as a priority over the environment (42 per cent). Between 2015 and 2019, the Earth regained control of American hearts and minds, but the COVID-19 pandemic appears to have altered the balance once more in 2020 and 2021.

Survey results could show that the majority of the respondents prioritize economic growth over environmental protection, implying that they are less likely to support conservation efforts to protect the environment. You should be familiar with the process of conducting values surveys to identify perspectives on environmental issues.

● HL.c.7, HL.c.8, HL.c.9, HL.c.10, HL.c.11: Environmental ethics

Think of moral standing and major ethical approaches as different sets of rules that guide people's choices. For example, some think that being a good person means treating nature kindly, while others think it's more about what good things come out of our actions. By asking questions that relate to these rules, we can learn how they shape attitudes towards environmental issues.

● HL.c.13: Environmental ethics

Environmental and social justice movements. Sometimes, environmental problems are connected to fairness and justice, just like how we treat each other. Understanding this helps us to ask questions that show how people care not only about nature but also about making things fair and equal for everyone.

Tool 1: Experimental techniques

Questionnaires, surveys, interviews

You need to use a tool like Google Forms or SurveyMonkey, or other polling functions such as on social media, to collect data.

To create and administer surveys, you should be able to:

- identify and justify your choice of an appropriate target audience
- construct relevant open or closed questions with multiple-choice responses or a Likert scale, as appropriate
- choose and justify an appropriate method and size of sample, for example, random, convenience, volunteer or purposive
- show ethical awareness, such as anonymity or consent of respondents over the age of 12
- pilot or trial the survey to gain feedback for modification.

This will assist you in comprehending the perspectives of various social groups and determining how these values are likely to impact specific environmental issues.

To help you understand the process, here's a step-by-step guide to follow:

- 1 Define the purpose of your research: What particular information would you like to obtain? (Remember that your purpose should also align with the topics and concepts covered in your ESS Course Book.)
- 2 Create a well-structured survey: Your questions must be written as clearly and concisely as possible. Make sure that your questions are not biased. Avoid leading or loaded questions and cover all relevant aspects of the topic of your concern.
- 3 Determine the specific group of participants: One factor you should consider is the group's demographic information, such as age and gender, which will depend on the purpose of your research. Make sure that your sample size is appropriate to obtain the desired results.

Tool 2: Technology

Use of digital technology

You then need to choose an appropriate software for data analysis.

- 1 Administer the survey: Decide a suitable way you can distribute the survey. This could be via an online platform such as Google Forms, SurveyMonkey or social media, or by paper-based questionnaires or face-to-face interviews. Provide clear instructions for respondents, maintain confidentiality if required, and encourage honest and thoughtful responses.
- 2 Record and organize the data: Data must be collected and recorded in a systematic way. If you are using an online platform, it may collect the data automatically to a spreadsheet. If you are using paper-based surveys or interviews, you will need to manually enter the participants' responses into a spreadsheet or data analysis software.
- 3 Analyse the data: Once your data collection is completed, you need to apply data analysis methods to draw meaningful conclusions from your survey. Data analysis may include both qualitative analysis (coding and thematic analysis of open-ended responses) and quantitative analysis (statistical measures, such as percentages, averages, correlations). For analysis, you may use Microsoft Excel, SPSS or other online statistical analysis tools.

- 4 Interpret the data: Examine patterns, trends and relationships within the data. Look for significant findings and connections to your research purpose. You may consider comparing different subgroups or demographic categories to gain a deeper understanding of your survey results.
- 5 Present your findings: Clearly summarize your findings using appropriate tables, graphs, charts and written explanations. Decide the most effective way to communicate your findings to your intended audience. This can be through a report, presentation or visual display.
- 6 Reflect and discuss: Reflect on three limitations of your survey. Consider the extent to which the sample or their responses may be biased. Consider the context of relevant theories, concepts and real-world applications while discussing the implications of your findings. Consider the ethical considerations involved in conducting and reporting survey research.

Remember to follow ethical guidelines and obtain any necessary approvals or consent before administering any surveys with human subjects. Additionally, consult your ESS teacher or supervisor for specific guidance and requirements related to survey design and data analysis for your coursework or assessments.

Designing effective values surveys for a specific social group involves crafting questions that capture a range of viewpoints concerning a particular matter and evaluating how these perspectives might influence the issue's dynamics.

For instance, consider a survey aimed at understanding the attitudes of a community towards renewable energy adoption. The survey could include questions that explore different reasons for supporting or opposing renewable energy, such as economic benefits, environmental concerns or concerns about visual impact. By gathering these varied perspectives, the survey assesses how each viewpoint might shape the community's overall stance on renewable energy projects, subsequently impacting decisions related to policy support, investment or development.

This comprehensive understanding of perspectives allows for tailored strategies that address the concerns and motivations of various groups within the community, facilitating more informed and effective approaches to promoting sustainable energy initiatives.

● HL.c.2, HL.c.3, HL.c.7, HL.c.8, HL.c.9, HL.c.10, HL.c.11, HL.c.13: Environmental ethics

The concepts of different ethical frameworks, moral standing, major ethical approaches, and environmental and social justice movements give us tools to create questions that reveal what people think about the environment, why they think that way and how their beliefs might impact their choices. This way, we can understand different perspectives on environmental issues and come up with solutions that consider everyone's viewpoints.

ATL ACTIVITY

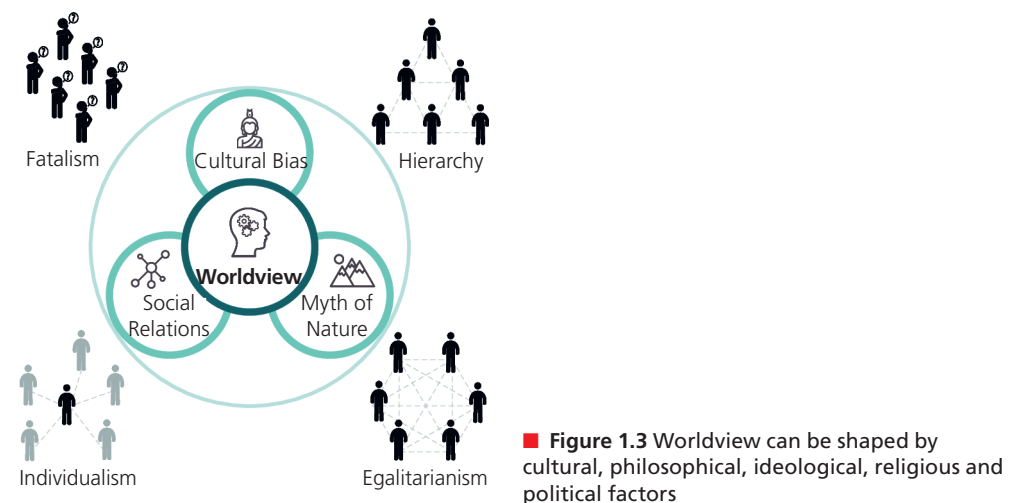
Consider that you would like to explore how students' unique perspectives relate to their attitudes towards specific environmental or sustainability issues. Design a research project where you create and administer surveys using online collaborative survey tools. Choose an appropriate statistical tool to analyse the collected data. Additionally, consider using behaviour-over-time graphs to visually depict any observed changes in students' lifestyles over the course of the study.

1.1.6 Worldviews shape people's values and perspectives

Worldviews are broad and comprehensive frameworks that shape people's perceptions and understandings of their surroundings as well as their actions. They can also be considered as people's 'lenses' on the world, which are shaped by the cultural, philosophical, ideological, religious and political factors that people use while making sense of the world. Therefore, people's worldviews influence the way they perceive the world and their place in it by shaping their values and perspectives.

A worldview is a set of beliefs, values and assumptions that impact a person's vision of reality and their behaviours. A person with a religious worldview, for example, may believe that the natural world was created by a higher power and, as a result, prioritize environmental conservation based on their religious views.

The interactions of individuals with others are also influenced by their worldviews. People who share similar worldviews have a stronger bond and sense of community with one another. They are also more likely to work together to achieve common goals.



Common mistake

People may not acknowledge or realize that as a result of the development of the internet and social media, one's perspective can be influenced by a far greater variety of worldviews than just those of the local community. Consequently, models that attempt to classify perspectives, though helpful, are invariably inaccurate as individuals often have a complex mix of positions. A person's perspectives and actions, for example, may be shaped differently if they have a combination of religious, environmental and economic worldviews. These worldviews will assist people in effectively navigating and communicating in a diverse and globalized society.

1.1.7 Environmental value systems

A model for understanding the factors that influence our various perspectives on environmental issues is called an environmental value system. It proposes that an individual's perceptions and understanding of environmental issues are shaped by the inputs they receive from various sources, such as the media, education and worldviews. These inputs are then processed by an individual's personal value system, which is comprised of the individual's beliefs, values and assumptions. This process results in outputs like judgements, opinions and actions that are influenced by the individual's value system.

For example, a person who learns about deforestation from a news source that emphasizes the economic benefits of logging may form an opinion that prioritizes economic growth over environmental protection.

■ **Table 1.1** Influence of value systems on decision making: a case on deforestation perspective

Input	Perspective	Output
"Loggers make a significant contribution to the state's economy as they purchase supplies from local businesses." (Source: http://economic-impact-of-ag.com)	Logging as a mean to sustain economic growth.	May form an opinion that prioritizes economic growth over environmental protection.
"The Solomon Islands in the South Pacific are under threat from illegal and unsustainable logging which is destroying its biodiverse rainforests at an alarming rate." (Source: www.globalwitness.org)	Deforestation as a threat to biodiversity.	May develop a viewpoint that prioritizes environmental protection over economic growth.

1.1.8 Classification of environmental perspectives

■ Introduction to technocentric, anthropocentric and ecocentric perspectives

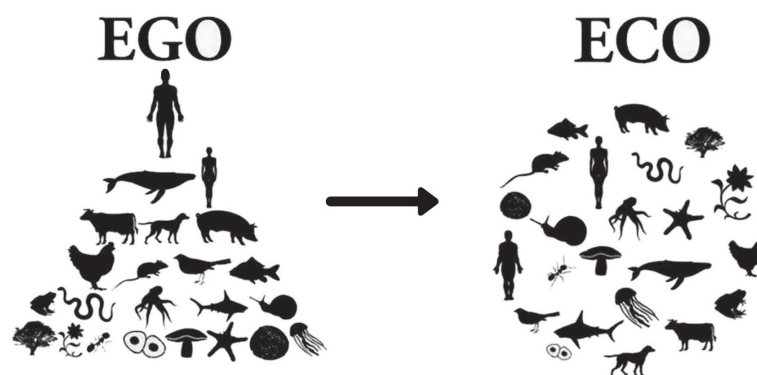
There are many ways to classify our perspectives. These models are useful, but imperfect, as individuals often have a complex range of positions. Technocentrism assumes all environmental issues can be resolved through technology and there can be unlimited economic growth in the **cornucopian view**. Anthropocentrism views humankind as being the central, most important element of existence, and it splits into a wide variety of views. Ecocentrism sees the natural world as having preeminent importance and intrinsic value. It favours small-scale, low-technology lifestyles with restraint in the use of all natural resources.

◆ **Cornucopian view** – the belief that considers that nature is there to be made use of by humanity.

● **HL.a.11: Environmental law**

Extending legal personhood to natural entities, like granting legal rights to rivers, demonstrates a deepening ethical commitment to environmental protection. This aligns with ecocentric perspectives, where nature holds intrinsic value. Such legal recognition strengthens environmental safeguards beyond anthropocentric viewpoints.

■ **Figure 1.4** The way people perceive human beings in relation to nature can change (diagram by Steffen Lehmann)



The characteristics, values and priorities of environmental perspectives are discussed below with examples and real-world implications.

Ecocentrism

Ecocentrism (values centred on ecology) and technocentrism (values centred on technology) are two competing viewpoints on the potential of human technology to impact, regulate and even preserve the environment. Ecocentrics, particularly 'deep green' ecologists, regard themselves as

subject to nature rather than in command of it. They have lost faith in contemporary technology and the bureaucracy that comes with it. Ecocentrics will argue that nature should be respected for its processes and products, and that low-impact technology and self-reliance are preferable to technological domination of nature.

Technocentrism

Technocentrics have unwavering faith in technology and industry, and they believe that people have complete control over nature. Although technocentrics acknowledge the existence of environmental concerns, they do not regard them as problems that can be remedied by reducing industry. Rather, environmental issues are viewed as scientific problems to be solved. Indeed, technocentrics believe that scientific and technical growth is the way forward for both rich and developing countries, as well as the solution to our current environmental concerns.

Conservationist ideas, as well as technology's ability to safeguard nature, should ensure that today's level of life is preserved in the future, but not at the expense of environmental damage.

Anthropocentrism

Anthropocentrism literally means 'being human-centred', but in its most important philosophical form it is the ethical view that only humans have intrinsic value. In contrast, all other beings are only valuable because of their potential to serve humans or because of their instrumental worth (source: L. Goralnik and M.P. Nelson, in *Encyclopedia of Applied Ethics* (Second Edition), 2012).

In some ways, all ethics is anthropocentric, because only humans have the cognitive ability to formulate and perceive moral value. This agency positions humans at the centre of any ethical system we develop, leading some researchers to argue that anthropocentrism is the only logical ethical system available to us. Many other researchers, however, contend that this situation is an ethically uninteresting truth, rather than a limiting element in the type of ethical system we construct to help us discern what is good and evil, right and wrong. We can recognize the limitations of our human lens while making decisions about where we find value in the world.

Because we are moral agents, the same cognitive faculty that allows us to see the world in comparison to ourselves also allows us to treat or value other things with respect or as goals in themselves. Ontological anthropocentrism is the concept of a human-centred universe in which human cognition affects our ethical approach. Ethical anthropocentrism is another form of anthropocentrism that sees humans as the exclusive possessors of inherent value. But not all ethical anthropocentrism is created equal. From this vantage point, one can either view humans in isolation and dismiss nonhuman relationships as unimportant for decision making, which can be referred to as narrow anthropocentrism, or one can understand humans in an ecological context, as embedded in and dependent on a plethora of relationships with other beings and systems, which can be referred to as enlightened, or broad, anthropocentrism.

Environmental ethics discussions frequently centre on ethical anthropocentrism, which attempts to analyse our valuing of the natural world in order to decide how we should act in relation to that world. What do we value in nature (and how do we define nature), why do we value it and how do these values present themselves? In this approach, whether motivated by ethical anthropocentrism or a more inclusive perspective, environmental ethics considerations are crucial to environmental policy and decision making. For, just as ontological anthropocentrism emphasizes the limitations of our experience, anthropomorphism frequently demonstrates the human storyteller's attempt to create sympathetic characters who communicate and participate in relationships in the only way the storyteller fully understands, as a human, even if these characters' lives do not reflect ecological reality.

● HL.c.2: Environmental ethics

Imagine that ethical considerations aren't only about how people treat each other, but also about how we treat the environment. This concept helps us understand why some people believe that the environment deserves ethical consideration too, just like humans.

● HL.c.3: Environmental ethics

Think of ethical frameworks as different lenses through which people view the environment. Just like wearing different glasses changes what you see, these frameworks influence how people think about environmental issues. By understanding these frameworks, we can ask questions that capture a wide range of viewpoints.

Similarly, anthropocentric thought is sometimes confused with anthropogenic action, or the consequences of humans on the environment. However, environmentalists may suggest that anthropocentrism is at the foundation of many of today's anthropogenic environmental concerns, such as climate change and widespread pollution. The fundamental issue of Lynn White Jr.'s important work in environmental ethics, *The Historical Roots of Our Ecological Crisis*, which articulates a link between ethics and ecological degradation, is the interaction between religion, science and the environment. According to White, our anthropocentric relationship with the natural world is to blame for our current environmental catastrophe; thus, in order to solve our environmental problems, we must reconsider our worldviews or religious interpretations. "What we do about ecology is determined by our conceptions of the man–nature relationship," writes White (1967, p. 1205). Since then, ethicists have taken on the problem of creating a more inclusive moral community by defining and defending it in a series of nested responses about who and what might matter morally, and why.

■ Summary

Our environmental worldviews can be divided into three categories: technocentric, anthropocentric and ecocentric. These are not mutually exclusive categories and there are numerous alternate schemes.

There is no doubting that each of these perspectives, in addition to the more traditional environmental perspectives, has merits that must be considered when looking for answers to environmental challenges. The task for society is to reach a consensus of viewpoints through a global debate on what is best not only for humans, but also for the rest of nature.

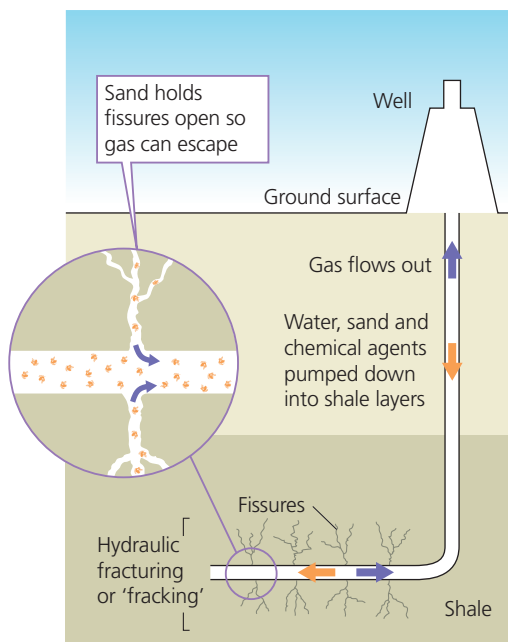
■ **Table 1.2** Our environmental worldviews can be divided into three categories: technocentric, anthropocentric and ecocentric

Perspective	Technocentric	Anthropocentric	Ecocentric
Focus	Technology and its role in solving environmental issues.	Human needs, desires and well-being.	Ecosystem health and the well-being of all organisms.
View of nature	Nature as a resource to be harnessed and controlled.	Nature as a means to fulfil human needs and desires.	Nature as an interconnected web of life.
Human role	Dominant and in control of nature and its resources.	Central and superior to other species.	Interdependent with nature; a part of the ecosystem.
Ethics	Human well-being and progress as primary concerns.	Human-centric ethics and rights.	Preservation and conservation of natural systems.
Environmental problems	Can be solved through technological innovation.	Primarily caused by human actions and can be mitigated.	Result from the disruption of ecological balance.
Solutions	Technological advancements, innovation and engineering.	Regulation and management of natural resources.	Conservation, restoration and sustainable practices.
Sustainability approach	Sustainable development and efficient resource use.	Balancing human needs with environmental protection.	Harmonizing human activities with ecological systems.
Criticisms	Disregard for the inherent value of nature and non-human life.	Lack of consideration for ecological interdependencies.	Anthropocentric bias and overlooking ecosystem health.

◆ **Fracking** – a technique for extracting natural gas from shale rock formations, involving injecting high-pressure water, sand and chemicals underground.

There are many ways to classify our perspectives, and these models are a useful but imperfect way of understanding the complexity of environmental worldviews. We all should also be aware that individuals often have a complex range of positions and that it is important to consider the different perspectives and worldviews when addressing environmental issues.

The values that support our viewpoints can be disclosed in our personal communication with the greater community, just as the values of companies can be revealed in their adverts, media, policies and behaviours. These values can be shaped by personal beliefs, education, culture and experiences.



■ **Figure 1.5** What is fracking?



■ **Figure 1.6** A protest against a fracking development near Southport, UK

Individuals who value environmental protection, for example, may express their views in social media posts and conversations with friends and family, whereas organizations that value economic growth may express their views through advertisements and policies that prioritize economic development over environmental protection.

Conflict example

Hydraulic fracturing, or **fracking**, is a specific illustration of how conflicting values can lead to tensions between individuals and organizations.

Some individuals and groups recognize the economic benefits of fracking, such as enhanced energy independence and job development. Other individuals and organizations, on the other side, are concerned about the possible detrimental impacts of fracking on air and water quality, as well as the greenhouse gas emissions involved with the process.

Individuals and organizations that favour fracking and those that oppose it face tensions as a result of this difference over values. For example, a local community that values economic expansion may favour the construction of a fracking well, whereas another community that prioritizes environmental protection may reject it. Furthermore, certain organizations may be in favour of fracking while others are opposed, causing tensions.

This example shows how differing values can produce tensions between individuals and organizations. It can be a good tool for people to appreciate the intricacies of environmental concerns, as well as the significance of considering the diverse views and values that form them. Furthermore, it can also help people comprehend the significance of efficient communication and negotiation in reaching a long-term solution.

There are numerous websites that provide information about fracking. However, remember that bias can appear in various forms, such as cultural, economic, political or ideological. To protect yourself from this bias, it is important to use diverse sources, check the background of the authors, check the facts, and critically evaluate the motives and evidences presented. Some reliable sources for information on this matter are:

- 1 The Environmental Protection Agency (EPA): Independent executive agency of the US federal government
- 2 ProPublica: Independent, non-profit news organization
- 3 Natural Resources Defense Council (NRDC): Environmental advocacy group
- 4 FracTracker Alliance: Non-profit organization
- 5 American Association of Petroleum Geologists (AAPG): Professional organization.

Environmental perspectives, which encompass various worldviews, can be understood through different ethical lenses. These lenses, including technocentrism, anthropocentrism and ecocentrism, shape how individuals perceive and interact with the environment. Importantly, these ethical perspectives intersect with legal and economic strategies, creating a comprehensive framework for addressing environmental issues.

● HL.a.3, HL.a.4: Environmental law

Environmental law is closely linked to ethical behaviour, as it prevents resource overexploitation and aligns with ethical frameworks like ecocentrism. These laws operate at various levels, from local recycling regulations to international agreements addressing transboundary pollution, all driven by ethical concerns and shared responsibility.

● HL.a.5: Environmental law

Environmental constitutionalism exemplifies the integration of ethical considerations into legal frameworks. As environmental rights and obligations find a place in constitutions, ethical values gain legal recognition. Notably, climate change issues are increasingly being addressed through constitutional amendments, reflecting ethical commitments to future generations.

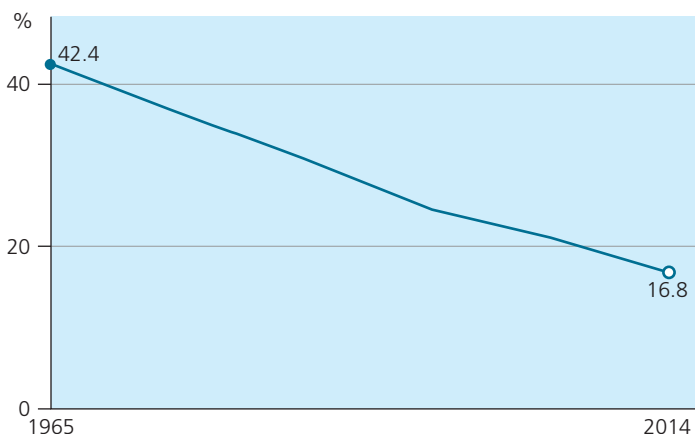
In essence, the integration of these ethical lenses into legal and economic strategies creates a comprehensive approach to environmental issues, fostering responsible behaviour, and promoting long-term ecological and societal well-being.

1.1.9 Changing perspectives and beliefs

◆ **Non-governmental organization (NGO)** – a non-profit organization that is independent of any government. Its main purpose is to address a social, environmental or political issue.

Perspectives and the beliefs that support them vary over time in all communities. Campaigns by government or **non-governmental organizations**, societal and demographic changes, and other factors can all have an impact on this. For instance, increased knowledge and awareness of the effects of climate change may lead to a shift in viewpoints on environmental issues.

By understanding how certain generational shifts have occurred, we may be better able to comprehend value change. For instance, smoking has witnessed considerable changes in attitudes and prevalence during the past few decades, as seen Figure 1.7.



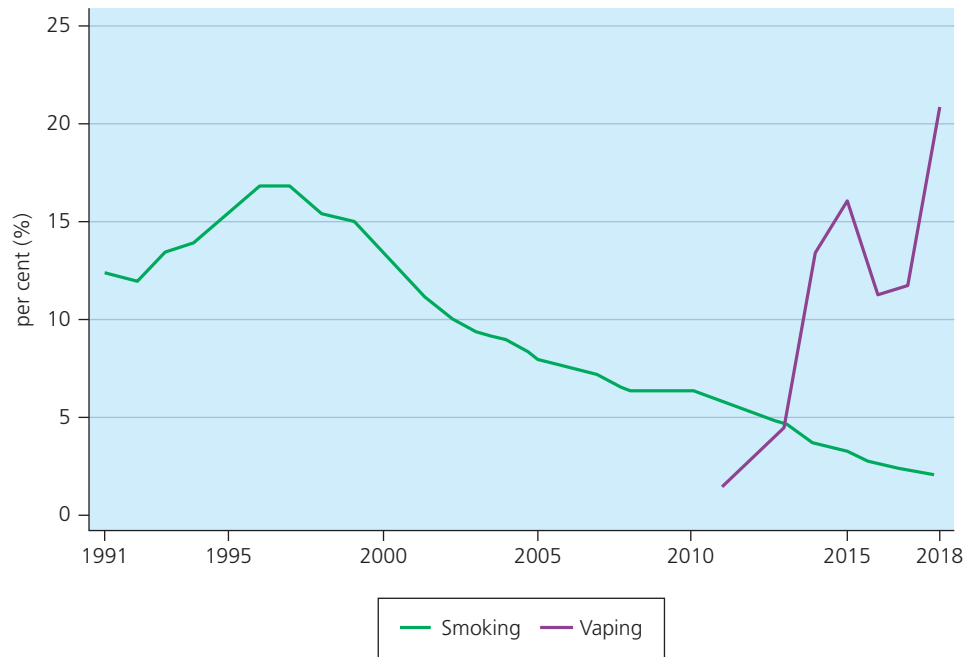
■ **Figure 1.7** Adult smoking rate in the USA has declined since the 1960s

By analysing the attitudes and perspectives of different generations on smoking, we can obtain insight into how these values have changed over time and what may have influenced those changes. For example, we can investigate how the anti-smoking campaigns in the 1960s and 1970s reduced smoking among a generation, while more recently the rise of e-cigarettes and vaping has increased smoking among the younger generation.

A behaviour-over-time graph can help you visualize these changes. The graph could show the percentage of people who smoke plotted over time, revealing changes in attitudes to smoking and the effectiveness of anti-smoking campaigns.

A graph showing the percentage of people who smoke over time, for example, could show that in the 1960s, approximately 42 per cent of adults in the USA smoked, and that this percentage had dropped to approximately 14 per cent by 2020. This graph would depict changes in smoking behaviour and attitudes over time, as well as the impact of anti-smoking campaigns.

This example shows how values can change over time and how different strategies and campaigns can influence these values. It can also give you a better understanding of how societies' values and priorities change, as well as how to navigate the complex issues that arise in a rapidly changing world.



Data sources: Monitoring the Future Study and National Youth Tobacco Survey.

■ **Figure 1.8** Adult smoking rate in US has declined since 1960s

Tool 2: Technology

Use of digital technology

Use the Google Trends website to search for trends over time for an environmental or health issue, such as smoking/anti-smoking campaigns:

- 1 Open your web browser and go to the Google Trends website (<https://trends.google.com>).
- 2 In the search bar at the top of the page, enter the keyword or phrase related to the environmental or health issue you want to explore. For example, type 'smoking' or 'anti-smoking'.
- 3 Once you've entered the keyword, press Enter or click on the magnifying glass icon to perform the search.
- 4 Google Trends will display the search results related to your keyword. Look for the section titled "Interest over time". This section provides a graph that shows the search interest for the keyword over a specific period.
- 5 By default, the graph displays search interest over the past 24 hours. You can modify the time range by clicking on the "Past 5 years" drop-down menu and selecting a different timeframe. You can also choose a specific country or region from the "Worldwide" drop-down menu to see regional trends.
- 6 Examine the graph to analyse the trend of the keyword's search interest over time. Look for any patterns, spikes or fluctuations in the data.
- 7 Scroll down the page to explore related topics, queries and rising searches. This section provides additional insights into specific subtopics and related search queries associated with your keyword.

ATL ACTIVITY

Using the data from Google Trends and your understanding of perspective/worldview concepts, answer the following questions:

- 1 Analyse the trend in search interest for the environmental or health issue you chose (for example, smoking/anti-smoking) over the specified time period. Identify any significant patterns, spikes or fluctuations in the data. What factors might have influenced these trends?
- 2 How do the search interest trends reflect the changing perspectives or worldviews of individuals or society regarding the chosen issue? Discuss any possible correlations between the search interest and societal or environmental factors.
- 3 Compare the search interest trends for different regions or countries. Are there any variations in the patterns? What cultural, social or contextual factors might explain these differences in perspective?
- 4 Based on the insights gained from Google Trends, reflect on the potential implications of the search interest trends for addressing the chosen environmental or health issue. How can this information inform awareness campaigns, policymaking or educational initiatives?

Note: It's important to consider the limitations of Google Trends data, such as the reliance on internet search queries and the potential biases inherent in online search behaviour. Use critical thinking and the integration of multiple sources of information to provide a comprehensive understanding of the chosen environmental or health issue.

Inquiry process



Inquiry 2: Collecting and processing data

- 1 Download the data displayed in the Google Trends graph and conduct further data analysis or processing.
- 2 Use a spreadsheet (e.g. Microsoft Excel, Google Sheets) to visualize the data, create additional graphs or calculate statistical measures (for example, averages, growth rates).
- 3 Explore how the data can provide more in-depth insights into the search interest trends and their implications.

1.1.10 Influences on the environmental movement

Individuals, literature, the media, major environmental disasters, international treaties and technical advances have all had an impact on the evolution of the environmental movement. These factors have changed our understanding of the environment as well as changing societal attitudes and behaviours towards environmental challenges.

Individuals have made major contributions to the growth of the environmental movement. For example, Wawa Gatheru, similar to Swedish activist Greta Thunberg, is a young environmentalist who advocates for environmentally friendly activities in her neighbourhood in Kenya.



■ **Figure 1.9** Rachel Carson

Environmental issues have also been impacted by literature. Rachel Carson's key work, "Silent Spring", published in 1962, is recognized as a fundamental work in the environmental movement for raising attention about the negative effects of pesticides on wildlife and the environment. James Lovelock's publications on the Gaia hypothesis claim that the Earth is a self-regulating system and provide an ecological viewpoint on the environment. Bill McKibben's *The End of Nature* (1989) was one of the first books to bring the problem of climate change to a wide audience. David Wallace-Wells's *The Uninhabitable Earth* (2019) is a dramatic study of the most recent scientific research on climate change and its repercussions for mankind and the Earth.

Significant environmental disasters have also had an impact on cultural views towards environmental issues. For example, the Minamata tragedy in 1956 was caused by the release of toxic garbage into Japan's Minamata Bay, resulting in widespread pollution and severe health impacts among the local population.

The media has had a large influence on cultural attitudes regarding environmental issues. Al Gore's documentary *An Inconvenient Truth* (2006), for example, raised awareness about climate change and the need for action. Other documentaries, such as *No Impact Man* (2009) and *Breaking Boundaries* (2021), have influenced public opinion on environmental issues.

International treaties have also had an impact on societal attitudes towards environmental challenges. For example, both the 1992 Rio Earth Summit and the 2012 Rio+20 conference helped to increase awareness about environmental challenges and led in the development of international accords to address these issues. United Nations Climate Change Conferences, such as COP 28 in 2023, have also influenced social attitudes towards environmental issues and the establishment of international climate change agreements.

Technological progress has also had an impact on societal attitudes towards environmental challenges. For example, the Green Revolution of the 1950s and 1960s concentrated on raising crop yields via the use of new technologies and methods. This helped to address food security challenges, but it also resulted in higher use of pesticides and fertilizers, which had significant environmental implications. Recent technical developments, including lower energy inputs and enteric fermentation, as well as plant-based meat alternatives, are addressing animal agriculture's environmental impact and supporting more sustainable methods.

As a more specific example, we can investigate changes in behaviours such as smoking, littering, eating meat, or how traditional indigenous lifestyles are being replaced by modern ones. By studying these issues we can gain a better understanding of how perspectives and beliefs change over time and how these changes are influenced by a variety of factors.

ATL ACTIVITY

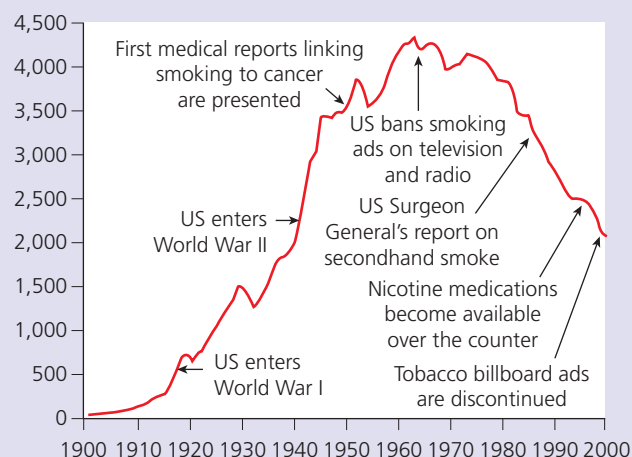


Figure 1.10 Adult per capita cigarette consumption and major smoking and health events, United States, 1900–2000

What does the graph in Figure 1.10 tell you about US cigarette consumption between 1900 and 2000? Does this surprise you?

Perspectives and beliefs regarding littering have evolved over time. In the past, littering may have not been seen as a significant concern. However, as environmental awareness grew, people started recognizing the detrimental effects of litter on ecosystems and human health. This shift in perspective has been influenced by several factors. For example, education and awareness campaigns highlighting the harmful effects of plastic pollution in oceans have led to a shift in perspective and a call for responsible waste management. Also, legal measures and regulations against littering, along with fines and penalties, have helped change societal norms and discourage littering behaviour. Strict enforcement and visible consequences have contributed to a change in perspective.



Perspectives and beliefs regarding meat consumption have also undergone changes over time. Historically, meat consumption was seen as a vital part of the human diet and cultural practices, if often a privilege not affordable to all people or at all times. However, several factors have contributed to evolving perspectives on eating meat in Western countries:

- **Health concerns:** Scientific studies linking excessive meat consumption to health issues, such as heart disease, obesity and certain cancers, have influenced people's perspectives on the health implications of consuming meat. This has led to the rise of vegetarianism, veganism and plant-based diets as alternatives.
- **Environmental awareness:** The environmental impact of meat production, including deforestation, greenhouse gas emissions and water pollution, has gained significant attention. Increased awareness of these issues has prompted some individuals to reduce or eliminate their meat consumption to mitigate environmental harm.
- **Ethical considerations:** Concerns about animal welfare and the ethics of raising and slaughtering animals for food have played a role in shaping perspectives on meat consumption. Animal rights movements and documentaries exposing factory-farming practices have raised awareness and led to changes in beliefs about the treatment of animals.
- **Cultural shifts:** Cultural changes, such as globalization and increased exposure to diverse dietary practices, have contributed to shifts in perspectives on meat consumption. For example, the rise of vegetarian and vegan cuisines and the availability of plant-based meat alternatives reflect changing beliefs and preferences.

● HL.c.13: Environmental ethics

The development of the environmental movement's evolution has been shaped by the convergence of environmental and social justice movements, demonstrating how issues of equity and justice have intertwined with environmental concerns.

● HL.a.7: Environmental law

International agreements and protocols have played a significant role in providing a framework for addressing transboundary environmental issues and guiding the movement's direction.

● HL.a.8: Environmental law

The impact of UN conferences and international agreements has been instrumental in shaping collective efforts and actions within the movement.

● HL.a.9: Environmental law

Institutions created to enforce international agreements have facilitated the implementation of environmentally beneficial measures, contributing to the movement's growth.

● HL.a.10: Environmental law

The application of international environmental law in courts has provided legal mechanisms for addressing environmental concerns and driving the movement's progress.

● HL.a.11: Environmental law

The concept of granting legal personhood to natural entities has furthered the movement's goals by recognizing the intrinsic value of nature in legal contexts.

● HL.a.12: Environmental law

Additionally, the integration of legal and economic strategies for sustainability has contributed to the movement's strategies for fostering a more sustainable relationship between humanity and the environment.

ATL ACTIVITY



You may discover further perspectives by looking at one example of influence from each of the following categories:

- An individual environmental activist, author or the media: for example, Al Gore's documentary *An Inconvenient Truth* (2006), *No Impact Man* (2009), *Breaking Boundaries* (2021).
 - An environmental disaster: for example, Minamata disaster (1956), Chernobyl disaster (1986), Fukushima Daiichi nuclear disaster (2011).
 - An international agreement: for example, Rio Earth Summit (1992) and Rio+20 (2012), United Nations Climate Change Conferences (e.g. COP 21 and 27).
 - Technological developments: for example, the Green Revolution, reduction of energy inputs and enteric fermentation, plant-based meat alternatives.
 - Scientific discoveries: for example, pesticide and biocide toxicity, species loss, habitat degradation.
- Examples may also be recent, from indigenous cultures or local/global events of your interest.

To summarize, a variety of variables have influenced the evolution of the environmental movement, including individuals, literature, the media, big environmental disasters, international accords and technical breakthroughs. These factors have changed our understanding of the environment as much as societal attitudes and behaviours towards environmental challenges. You must comprehend these impacts in order to develop a deeper awareness of the intricacies of environmental concerns and the need for considering other points of view while tackling these challenges.



ATL ACTIVITY

- 1 Explore your perspectives and actions: Engage in debates or discussions with your peers about your own perspectives on various environmental and social issues. Reflect on how these viewpoints might influence the choices you make and your behaviours in relation to these topics. Share insights on the connections between personal beliefs and actions.
- 2 Advocate for change through persuasive materials: Take on the role of an advocate by designing materials that effectively promote a specific environmental or social cause. Use your creativity to develop compelling content that highlights how individual actions can play a pivotal role in driving positive transformations towards a more sustainable society.
- 3 Delve into environmental problem-solving: Participate in discussions that explore the multifaceted approach to addressing environmental challenges. Investigate the roles of politics, intergovernmental organizations (IGOs), non-governmental organizations (NGOs), and even individual efforts through platforms like social media. Consider joining a Model United Nations (MUN) group to collaboratively explore solutions to real-world environmental issues and understand the broader context of problem-solving efforts.

REVIEW QUESTIONS

- 1 Write an essay with reference to two examples to discuss the factors affecting contrasting environmental values and perspectives.
- 2 Design your own environmental value system model on the issue of deforestation, using the table below as a template.

Input	Perspective	Output
List some of the sources that shaped your perspective.	State your perspective on the issue of deforestation.	List the actions you would take.

- 3 Define briefly three environmental perspectives: technocentric, anthropocentric and ecocentric. Give one example for each.

EXAM-STYLE QUESTIONS

- 1 Discuss, with reference to two contrasting environmental problems, the technocentric belief that technology may provide solutions to environmental problems. [4 marks]
- 2 Outline the factors that lead to different environmental value systems in contrasting cultures. [4 marks]