

Name: _____



AQA GCSE Geography Paper 3 Pre-release 2024

Starter for 10

Key Terms	Definition
Infrastructure	Basic systems and services a place needs, like roads, bridges, water supply, and electricity.
Hectare	A unit of area measurement equal to 10,000 square meters, or about 2.47 acres, often used to measure land size.
Rural urban fringe	The boundary zone where the city meets the countryside featuring a mix of urban and rural land uses, often with housing, industrial sites, and farmland.
Urban sprawl	The spread of urban areas into surrounding rural areas, leading to the development of new housing, roads, and shopping centres, often at the expense of green space and agricultural land.
Brownfield	Previously used or developed land, often in urban areas, that may be contaminated but can be cleaned and reused for new buildings or other purposes.
Greenfield	Undeveloped, natural land or agricultural land outside cities that has not been built on before, often valued for its open space and potential for new development.
Sustainable	Using resources in a way that does not lead to the running out, maintaining ecological balance, and ensuring that we can meet our current needs without risking the ability of future generations to meet theirs
Sustainable Settlement	Places where people live are built not to harm the environment, using materials and energy that keep the air and water clean.
The High Weald	An area of outstanding natural beauty containing ancient countryside made up of small mixed farms (animals and crops), located south of Tonbridge in the south of England.

Outline the key features of the Tudeley Village development. For two features explain why they are sustainable.

Existing buildings will be preserved and new buildings will be designed to fit into the local style.

The development will be mixed use meaning jobs will be created in the offices, workshops, shops and cafes.

The development will have open space which will include allotments, village green and sporting facilities which will be good for people's physical and

Starter for 10

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Using the OS Map on Figure 2 (Pages 5) Answer the following questions.

1. Calculate the area of the proposed development

2.5km | 2.9km | 3.5km | 4.1km

2. What is the name of the dual carriageway near the proposed development?

A26 and A228

3. Give the 6-figure grid reference of the proposed station

625455

4. What is the distance along the trainline from the main railway station in Tonbridge and the new proposed station?

4 km

5. What physical features will the proposed development affect?

A tributary of the River Medway Tudeley. Forest areas, open countryside

6. Describe the relief of the proposed area.

The area is relatively flat with a slight hill to the south that increases from 20m to 58 metres at its highest point

Explain the positive and negatives of building on brownfield sites compared to green field sites (4 marks)

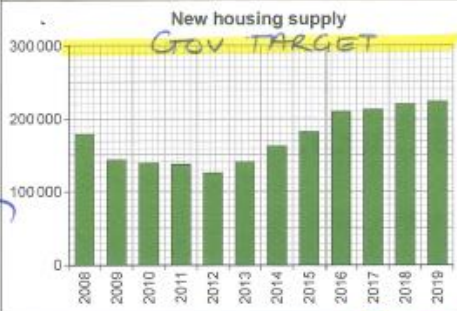
One negative of building on a brownfield site is the cost. It is expensive to take down and remove the existing infrastructure.

One positive of building on brownfield sites is that you aren't damaging the natural environment meaning that wildlife and their habitats are kept safe from harm.

Starter for 10

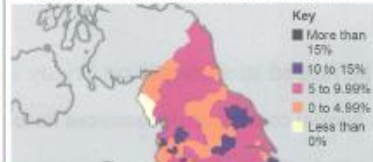
Figure 1
England's housing challenge

How much new housing does England need? *Demand.*
 The National Housing Federation (NHF) estimates that the overall demand for new and improved homes is approximately 340,000 per year. The Government has a target to build 300,000 new homes a year by the mid-2020s. Based on current figures it was estimated that approximately 170,000 new homes were built in England in 2022. In addition to new homes, many existing homes need to be improved or replaced because they are unsuitable or of poor quality.



Projected regional household growth in England
 The total number of households in England is expected to rise from 23 million in 2018 to 26 million in 2040. However, there will be significant regional variations in rates of growth.

Projected housing growth 2018-2028 (%)



1 in 7 people in England directly hit by housing crisis

A report by the National Housing Federation suggested that 8 million people are living in unaffordable or unsuitable homes. The report identified a wide range of issues including homelessness, overcrowding and a lack of basic facilities. It suggests that these issues are leading to ill health and children missing out on a good start to life. The problems vary across the country. In some places low wages mean that people struggle to pay their rent, while in other places the high cost of housing leads to overcrowding. Regional housing problems are also affected by the amounts regions spend on housing and basic community amenities.

Government spending on housing and community amenities in England (2021)

	£ per head
London	203
North East	183
West Midlands	138
Yorkshire / Humberside	138
East Midlands	126
East of England	110
North West	109
South East	96
South West	77

House prices and household income in England (2019)

Region	Average house price (£)	Average household income (£ per person)
London	477,813	30,256
South East	320,454	24,715
East of England	292,444	22,392
South West	258,602	21,222
West Midlands	199,802	18,350
East Midlands	194,798	18,635
Yorkshire / Humberside	167,181	17,959
North West	168,022	18,901
North East	127,466	17,096

More homes needed Target below demand by 40,000

Target

Actual 50% of demand.

Social issues eg homelessness + lack of water / electricity
 Can't pay other housing

PROBLEMS
 Not fit for dwelling

Impacts health + Edu.

% of House Price

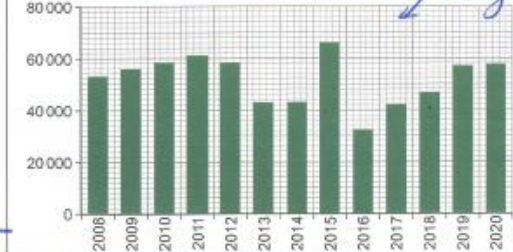
* NORTH/SOUTH *
 DIVIDE!
 Key Idea

Figure 1 continued
 England's housing challenge

New affordable housing, 2006-2020

Affordable housing includes homes for sale or rent at what is considered an affordable price for the local area. The National Housing Federation suggests that 145,000 affordable homes need to be built each year to help deal with the current housing crisis.

Total supply of new affordable housing



Where should new houses be built? The brownfield v greenfield debate

Housing developers are faced with decisions about whether to build on greenfield sites, which have not been previously developed, or brownfield sites which were previously developed areas usually found in urban areas. Greenfield sites are often cheaper to buy and develop, have more space and are attractive to house buyers and modern business, while brownfield sites already have road networks and infrastructure, although expensive upgrading may be required.

Urban sprawl - England's countryside is gradually disappearing

There are growing concerns about the rate at which the countryside is being covered with new housing estates, shopping centres, industrial parks and road networks. Most of this urban sprawl is taking place in rural-urban fringe areas which were previously providing recreational space and stopping urban areas from merging together. It is estimated that approximately 4,000 hectares of countryside is built on each year, removing woodland, draining wetlands and destroying farmland. However there is no easy answer. While rural areas need to be protected to avoid damage to wildlife and the countryside, there is not enough brownfield land to satisfy the demand for housing, so there will be a need for the sensitive development of the rural-urban fringe.

Research shows space for 1.3 million homes on brownfield land

A report by CPRE, the countryside charity, has suggested that brownfield land in England could be used to build over 1.3 million new homes. However, much of this land is not being used because developers prefer to use greenfield sites, even though protecting rural areas is seen as increasingly important. An example is Trafford, in Greater Manchester, where the council is proposing the development of 5,000 new homes, warehouses and roads on Carrington Moss, an area of peatland, woods and agricultural land, despite there being plenty of brownfield land in the area.



A brownfield development

CPRE feels that the development of brownfield land would bring huge economic and social benefits and help to regenerate urban areas. The mayor of West Midlands told the CPRE, 'There is no excuse to destroy the countryside while there is brownfield land available for housing, shops and modern business. These places can become thriving, attractive places to live and work - with nature nearby to be enjoyed'.

Browfield
 Greenfield

Target

Never met target

TEA?

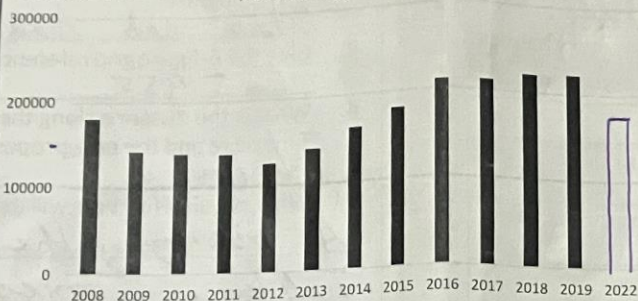


Figure 1: England's housing challenge

Summarise England's housing challenge

- 8 8 million living in unaffordable or unsuitable homes.
 Lack of basic facilities
 Low wages mean people struggle to pay rent.
 High cost housing leads to overcrowding
 What are the consequences of the housing crisis?
 Children miss out on a good start to life due to overcrowding and a lack of basic facilities

It is estimate 170,000 new homes were build in 2022. Complete the graph below to show this. New Housing Supply



Calculate the percentage change between 2008 and 2022.
 $2008 = 180,000$
 $2022 = 170,000$
 $10,000 = 5.5\%$ drop

Calculate the percentage increase in the total number of households between 2018 and 2040?

$$26 - 25 = 1$$

$$\frac{1}{26} \times 100 = 3.8\%$$

Study the map showing projected housing growth between 2018 and 2028 (%). Describe the distribution of areas where there are projects to be more than 15% growth in housing.

Areas experiencing more than 15% growth are found in Central England. There is one exception to the south. (Exeter)

Study the table showing Government spending on housing and community amenities in England. Calculate the following statistics.

Mean:
 $\frac{Total}{9} = \frac{1,180}{9} = 131.1$

Median:
 126

Mode:
 138

Range:
 $203 - 77 = 126$

Where are house prices highest? Evidence? London

$\pounds 477,815$ average house price

Where is income lowest? Evidence? North East

$\pounds 17,046$ income

What is the gap between income and house price in the South East Region of England?

Income = 24,715
 House price = 320,454
 Gap $\pounds 295,739$

Complete the table below to show the advantages and disadvantages of brownfield and greenfield sites.

	Greenfield Sites	Brownfield Sites
Advantages	Social: Homes feel like they are surrounded by nature	Land that was unsightly now looks better
	Economic: Cheaper to buy	Land can be reinveted on for profit
	Environmental: There isn't greenfield should be protected for nature!	No green land is destroyed. Nature is saved!
Disadvantages	Social: Removing green areas is bad for fitness + mental health	Local people can be priced out (Gentrification)
	Economic: Land could have been farmland	More expensive to buy
	Environmental: Natural habitats are destroyed	Land can be polluted

Overall, what is your opinion?

To solve England's housing crisis should houses be build on brown or greenfield sites?

1.3 million homes could be built on brownfield sites according to figure 1. It makes perfect sense to use brownfield as it needs the largest easily and it means nature is protected which is better for the people + animals of the UK

Study the graph showing the total supply of new affordable housing. Describe the trend in the total supply of new affordable housing from 2015 - 2020.

T	The trend is that there is a dip to 2012 then an increase to 2019
E	It starts at 180,000 in 2008 drops to 125,000 in 2012 then increases to 225,000 by 2019
A	Although there is an increase in the number of homes being built it still doesn't meet the target of 300,000 per year

Social
Env.
Econ.

Figure 2

The proposed Tudeley Village development

Tudeley Village is a proposed new 'garden settlement' on land between **Tonbridge and Paddock Wood** in Kent, to the north of the B2017 road. The land is currently mostly agricultural within a rural landscape. To the south of the site is the High Weald, a designated Area of Outstanding Natural Beauty (AONB) which provides opportunities for a range of leisure and recreational activities. The London to Ashford railway line runs through the area with the nearest stations at Tonbridge and Paddock Wood.

Tudeley Village is planned as a 'self-contained' settlement of distinct neighbourhoods organised around a village centre. The neighbourhoods are connected by a network of pedestrian and cycle routes. The village is designed to be walkable, enabling residents to live more sustainably.

Key features of Tudeley Village

Housing – The plan includes 2800 new homes to be built over a period of 30 years. It includes homes of different sizes and styles with a proportion of affordable housing.

Mixed use – Tudeley Village will offer leisure and business opportunities, including offices, workshops, cafes and shops.

Open space – This will include allotments and orchards and a village green, as well as sporting facilities.

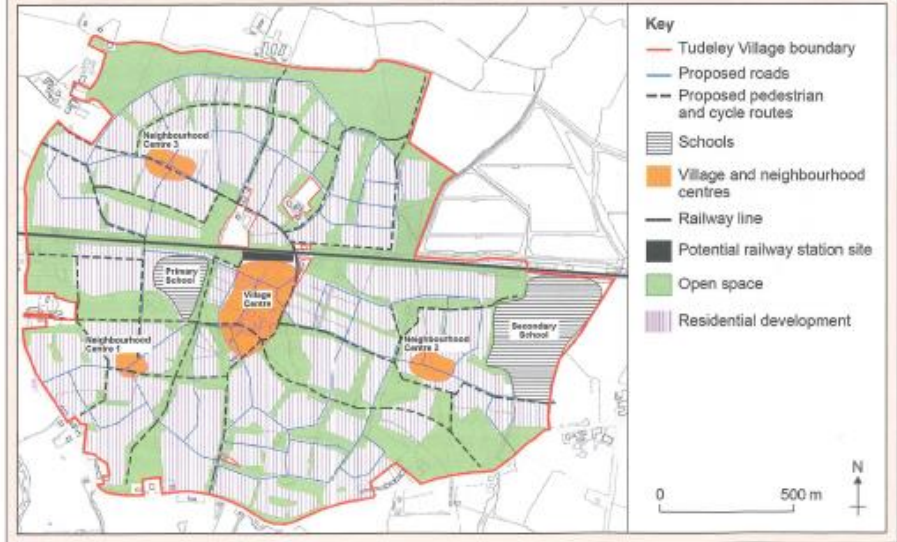
Community – Facilities will include a nursery, primary and secondary school, village hall, healthcare facilities and a sports centre.

Movement – An interconnected network of footpaths, cycle tracks and roads is planned throughout the village and will link to Tonbridge and Five Oak Green.



Adapted from The Tudeley Village proposal

The Tudeley Village Plan



The Plan

Where?

Figure 2 continued

The proposed Tudeley Village development



Site of proposed Tudeley Village development

The High Weald – An Area of Outstanding Natural Beauty

The High Weald is an area of ancient countryside made up of small mixed farms. Many of the fields are surrounded by hedges and areas of woodland, providing the opportunity for wildflowers and animal habitats to thrive. Extensive views of the countryside and villages can be seen from the ridge-top paths. Most of the buildings are constructed using traditional materials and have a distinctive local style.

The area was designated an Area of Outstanding Natural Beauty (AONB) in 1980 and over 10 000 hectares is protected land and seen as internationally important for nature conservation. The area has always been used locally for recreation and leisure and is attracting increasing numbers of visitors, adding to the challenge of ensuring that the area is managed sustainably.

(Adapted from 'The High Weald – the vision for 2024')



Additional impact from 2800 homes!

Briefly describe the nearby transport infrastructure surrounding Tudley Village.
Hint: Use the OS map extract to help you.



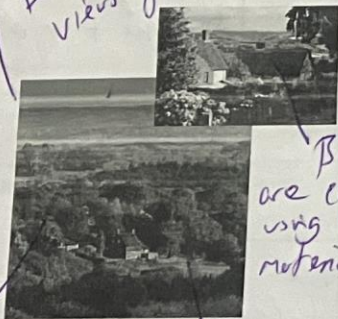
There is a B2017 road to the south.
There is a proposed railway station along the railway line.
The A26 is to the west.
The A228 is to the east.

What is an AONB?

Area of Outstanding Natural Beauty

Annotate the photographs below of the High Wolds below to explain why AONB is significant to the development of a new village.

Ancient countryside
Beautiful unspoilt views from the footpath.



Buildings are constructed using traditional materials.

Areas of woodland provide habitats for birds, insects and animals.

Small mixed farms - businesses could be expected

Figure 2: The proposed Tudley Village Development.



Where is the proposed Village of Tudley? What is the area like? Use the booklet and drone footage.

Tudley is found to the East of Tonbridge in Kent. This is found in the South East of England.

The capital city of London is found to the North West.

The area is relatively flat and green.

Using map evidence, what are the advantages and disadvantages of the proposed site?

+ Advantages

It is accessible via the B2017.
The land is relatively flat and there is no need to knock anything down.
There is a railway line.

- Disadvantages

The B2017 experiences traffic.
There is currently no railway station meaning commuters have to travel to Tonbridge station.

Use the 'Tudley Village Plan' to annotate the features of the development on the map below.

Hints: What will the development include? What is in the area surrounding the village proposal plan?

New railway station within a 10 minute walk (But only built once 1400 homes have been completed)



No development on floodplain means low risk of flooded houses.

Existing water supply will be used - can it cope?

Village green as a meeting space.

Solar Farm - sustainable.

Valuable habitats + woodland protected.

New buildings in keeping with existing style.

Range of sizes and styles of homes to suit different buyers.

Both Commercial (Business) and Community buildings

A positive development

Could Cause Objections

Figure 3

Different perspectives on the Tudeley Village development

Tudeley Village – Key points
Sustainability is the main principle for the development of Tudeley Village and part of this is the creation of a pedestrian-friendly, walkable community. The main streets will connect neighbourhoods and be linked by footpaths and cycle routes. A bus route to nearby towns, electric-vehicle charging points and a cycle route to Tonbridge will support sustainable transport.

New railway station within a 10-minute walk from anywhere in the village

Cricket club

Solar farm will generate electricity and renewable energy technology will be used throughout the development

No development will be allowed on the floodplain

A new electricity sub-station will be built

Existing water supply infrastructure will be used and drainage systems upgraded

Ancient woodland and existing valuable habitats will be protected

Existing heritage buildings will be preserved and new buildings designed to fit in with local styles of building

A traditional village green will provide a meeting and recreational area

A mixture of commercial and community buildings

A range of housing sizes and styles will be built to attract people of different ages, and affordable housing will be included

Adapted from 'The Tudeley Village proposal'

Part of the Local Authority Plan for Tudeley Village

Tudeley Village will provide the opportunity for a sustainable settlement with a new village community of mixed housing to suit a range of different family circumstances. The location will create the opportunity for residents to visit nearby towns, as well as the open countryside of the High Weald. The settlement will be supported by a village centre with shops, services and commercial/office space, which will provide local employment opportunities. Community facilities will also be built, including schools and a health centre. Recreational space is included in the plan, both around the village green and nearby playing fields. Road networks will be improved and a proposed bypass around Five Oak Green will help to manage the expected increase in traffic. The development provides for a new railway station, providing rail links to London, while footpaths and cycle-ways will be developed in order to reduce car use. The development has a 'low energy vision' and district heating and modern waste collection measures will be considered.

(Adapted from Tunbridge Wells – Pre-Submission Local Plan)

Mainly +ve Views.

FOR BUILD

Evidence of being Sustainable

Against

Figure 3 continued

Different perspectives on the Tudeley Village development

Tudeley Village will turn a rural area into an extension of Tonbridge (Summary of local objections)
The development of Tudeley Village will turn an area of open countryside into an urban landscape. The land is part of an ancient area of woodland and provides open space between existing urban areas and is used as a recreational space by local people. Many people who live in the Tonbridge area regularly commute to London for work, where they can earn far more, so it is likely that if Tudeley Village is built it will become another 'commuter settlement', with lots of additional traffic and parking problems. The development of shops and services will also take business away from existing commercial centres and increase traffic from other places.

Tudeley development could be a disaster
A local campaign group is concerned that the development of large areas of housing will have a significant effect on the local area and create an area of urban sprawl between Tonbridge and Paddock Wood. The chairman of the group has suggested that development will create additional traffic on 'already congested roads' and that the development 'opens up sustainability issues as infrastructure and facilities will only be provided when a certain number of the houses have been built', and that may not be for a number of years since the development is planned to take 30 years. For example, the railway station will not be built until 1900 houses have been completed; until then there will be increasing traffic as a result of residents getting to Tonbridge station in order to commute to London. There are also concerns that the existing infrastructure will not cope with the scale of the development and the area of hard surfaces will increase flood risks. The campaign group has identified the following factors that they feel make the proposed development 'unsuitable and unsustainable':

- The site includes hedges, woodland and footpaths regularly used by the local community.
- The existing electricity and sewage infrastructure will not support such a large development.
- The development will put pressure on local services, which already have high demand.
- The B2017 road already experiences congestion and long traffic tailbacks and the development will add to this.
- The development may take business away from nearby villages, making them less sustainable.
- The new housing will be too expensive for local people and the development will do little to supply the affordable housing that local people need.

(Adapted from the 'Save Capel' campaign group)

AGAINST BUILD

Infrastructure post development of housing -> what about infrastructure

What is a sustainable settlement?

A sustainable settlement manages its social, environmental and economic characteristics in order to meet current and future needs. These could include:

- access to quality, affordable housing and utilities (water/energy)
- community facilities
- environmental protection
- local employment opportunities
- all needs met locally
- minimum waste created
- recycling opportunities
- renewable energy opportunities
- sustainable transport systems.

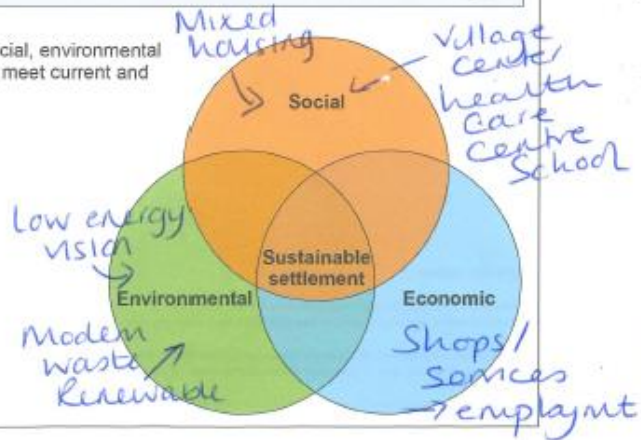




Figure 3: Different perspective on the Tudley Village Development.

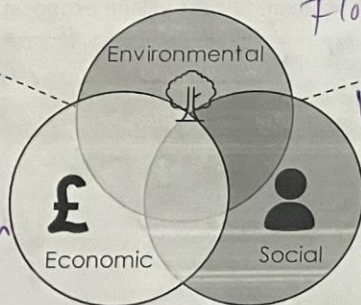
Define Sustainable: Meeting the needs of today without compromising the needs of tomorrow.

A sustainable city is one in which there is minimal damage to the Environment, the economic base is sound with resources allocated fairly and jobs secure and there is a strong sense of Community with local people involved in decisions made. Sustainable urban living includes several aims including the use of renewable resources, energy supply, use of public transport, accessible resources and services.

+ The ancient woodland is being protected. No homes being built on the flood plain

- Additional traffic creates pollution
Green land being used for homes
Flooding?

+ London commuters can live there it will create jobs in construction and in the local shops + businesses

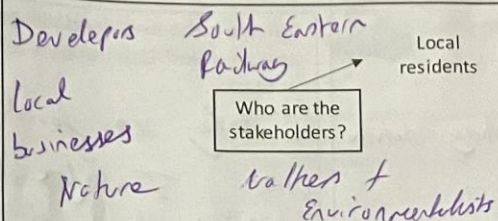


It will have a strong community +
It will be surrounded by greenery.

- It could become a commuter settlement with the houses become too expensive

- It might not have a community feel as it might become a commuter settlement.

FOR:



Take notes from the video clip = What do the locals think? It will be too visible - too much traffic. Schools + necessary buildings like the railway won't be there until 1400 houses are built. Flooding, loss of green belt catastrophic for the countryside. Infrastructure is key to get right first. Affordable housing is important. Flooding - how are they going to prevent it?

List the objections to the proposed development.

Commuter settlement
Hedges + woodland at risk.
Existing sewage + electricity won't cope
long traffic expected



Should the village go ahead? Why?

YES
NO
No - it won't be sustainable until they plan for the extra traffic + infrastructure

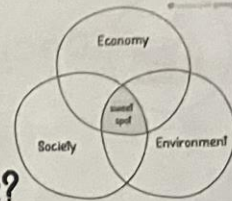
Summarise in bullet point form - the main costs and benefits of the new proposal.

Costs (Disadvantages) of the development	Benefits (Advantages) of the settlement
<ul style="list-style-type: none"> Damage to the environment. Potential risk of flooding Will it become a commuter settlement. Will the houses be affordable? As the infrastructure going to cope? 	<ul style="list-style-type: none"> New homes which helps more towards the budget. Jobs in construction Jobs for local people. Community feel with traditional village style.



Decision Making Exercise: To what extent do you believe the proposed development of Tudeley Village is sustainable

THE SUSTAINABILITY LENS



Is it sustainable?

- Social sustainability is when everyone can claim a reasonable quality of life, maximise their personal potential and maintain a healthy community now and in the future.
- Environmental sustainability is when no lasting damage is done to the environment and renewable resources are managed in ways that guarantee continued use.
- Economic sustainability is when individuals and communities continue to have access to a reliable income over time without a negative impact on the environment, society or culture.

Point	Example	Explain and Link
To some extent, proposal is socially sustainable	There is a need to build 300,000 new homes in England every year	This is shown in figure 1.
However, elements of the plan are not socially sustainable	There is a risk it will become a commuter settlement and not have a community feel	This is shown in figure 3. Many people who already live in the area commute to London for work.
The proposal also includes environmentally sustainable features	They are not building on the flood plain and are protecting valuable habitats.	This is shown in figure 2 and is a positive as it means that valuable habitats are protected.
However, elements of the plan are not environmentally sustainable	The site includes hedges, woodland and footpaths used by the local community.	By losing these green natural areas as a result of the construction of the village we will cause permanent damage to the environment - As shown in figure 3
Features of the proposal are economically sustainable	Local jobs and extra income for local businesses.	Figure 2 states that part of the local authority plan will create opportunities for residents to visit nearby towns.
However, the plan could have a negative economic impact	The development may take business away from nearby villages + will be too expensive for locals	Figure 3 states that as it may become a commuter settlement it will mean local people can't afford to live there. There is also a risk of a negative impact on local businesses.
In conclusion The negatives outweigh the positives. Due to the risk of flooding, increase in traffic, pollution, loss of greenland, risk of it becoming a commuter settlement and the homes being too expensive for local people it doesn't make sense to build it.		





Decision Making Exercise: Should the proposal to develop the village go ahead?

internet geography

Tudeley Village

DEVELOPMENT

SHOULD THE PROPOSAL TO DEVELOP THE VILLAGE GO AHEAD?



SOCIAL

It will have a strong community village feel. It will be surrounded by greenery.

ECONOMIC

It will create jobs for people in construction and for local people.

The ancient woodland is being protected. No homes on the flood plain.

ENVIRONMENTAL

SOCIAL

It could become a smaller settlement.

Will the homes be affordable or will they sell to people who work in London and earn larger salaries?

ECONOMIC

Additional traffic creates pollution. Green land being used for homes damages the habitat. There is a risk of flooding.

ENVIRONMENTAL

CONCLUSION

ADVANTAGES

DISADVANTAGES

YES

NO

In my opinion the Tudeley village development should not be built. There is too much of a risk to the environment, green land, ancient woodland and hedgerows could potentially be damaged. There is a serious flood risk in the area. Finally they haven't thought about the infrastructure meaning there is going to be heavy traffic causing pollution. If they do decide to go ahead they need to develop the infrastructure first to prevent this from happening.

Don't forget to then give an alternative view! (11)