# Possible Approaches for H1 Geography A-levels 2024 (Essays)

Q4: Evaluate the demands placed on the natural environment by the growth of large urban areas. [13]

**Cambridge Examiner Comments:**

Most candidates described the impact that urbanisation and deforestation had on the local environment. Weaker responses tended to focus too much on the impact on the enhanced greenhouse effect, thus reducing their focus on large urban areas. Stronger responses did consider a variety of features of the natural environment, including climate, hydrology, pollution, vegetation and ecosystems, and many had clear cause and effect links between human activity in large urban areas and the environment, for example:

*'When waste generated by the urban area is dumped in landfill sites, it may rot and produce toxic fumes and leachate, which gets into the water table and pollutes the water supply.'*

Most responses showed the lack of evaluation as to the scale, frequency and nature of the various 'demands', and which was the most important and why. Stronger responses recognised this would vary both with the nature of the demand and the characteristics and location of the large urban areas, for example:

*'Large urban areas in developing countries struggle with the demands placed on their environment, typified by areas such as the slums of Mumbai. On the other hand, developed countries have the knowledge, technology and willingness to do something about it, thus their demands are far less threatening to the natural environment.'*

**Introduction**

The growth of large urban areas places significant demands on the natural environment, both within city boundaries and beyond. These demands stem from the need to sustain large populations and complex economies, often without viewing waste as a potential resource. As a result, cities absorb vast quantities of natural resources and generate substantial waste, causing environmental impacts on surrounding areas and distant regions. These effects vary with development levels and are shaped by urbanisation trends, management strategies, and levels of poverty.

**Body Paragraph 1: Resource Extraction and Surrounding/Faraway Impacts**

Large urban areas depend heavily on natural resource extraction to sustain liveability, demanding water, energy, food, and construction materials. These resources are sourced from the surrounding hinterlands and faraway rural or forested regions. For instance, minerals for infrastructure, rare earths for electronics, and agricultural produce to feed urban populations are typically sourced from outside city boundaries. In rapidly urbanising countries like China and India, cities such as Guangzhou and Bengaluru rely on distant forested regions, including Southeast Asia and the Amazon, for timber, palm oil, and beef. This causes deforestation thousands of kilometres away, releasing stored carbon and reducing the planet's ability to absorb emissions. Meanwhile, developed cities such as New York and Tokyo also demand large amounts of imported food and raw materials, but their stronger environmental regulations and supply chain controls may reduce some of the faraway ecological damage. Nonetheless, their consumption still contributes to global pressure on ecosystems via embedded resource use and carbon emissions.

**Body Paragraph 2: Metabolism of Waste and Contribution to Contemporary Climate Change**

Urban areas have a linear metabolism: they import resources and export waste without integrating circularity. Economic activities in cities produce massive amounts of waste, especially carbon dioxide from fossil fuel combustion. This contributes significantly to contemporary climate change, where urban industries, vehicles, and power generation release greenhouse gases as waste products. For instance, Lima in Peru discharges 18,000

litres of untreated wastewater into the Pacific Ocean every second, illustrating how cities degrade environmental quality in surrounding and downstream areas. The failure to view waste as a resource results in high ecological footprints—as seen in cities like London, where the footprint is 125 times its physical size—demonstrating how urban demand extends far into global ecosystems. However, some developed cities are actively promoting circularity to reduce this impact. For instance, Singapore's Zero Waste Masterplan aims to reduce waste sent to Semakau Landfill by 30% by 2030 through policies that promote recycling, e-waste collection, and food waste utilisation. By treating waste as a resource, Singapore reduces the need for fresh extraction of materials from the environment and limits the spatial spread of its environmental footprint. These circular strategies not only reduce landfill use and pollution but also curb emissions associated with incineration and long-distance resource supply chains—helping to lower the ecological footprint despite continued economic growth.

**Body Paragraph 3: Rising Demand from Asian Cities and Modifying Factors**

Urbanisation trends show that future environmental pressure will increasingly come from large Asian cities. Asia is home to 54% of the global population and is urbanising rapidly, with cities in China (e.g. Shanghai and Chongqing) and India (e.g. Mumbai and Delhi) projected to absorb the bulk of urban population growth by 2050. These cities face dual challenges: sustaining large populations while managing the demand for land, water, and energy. However, the impact of this demand varies depending on the level of development and institutional capacity. In some less developed countries, such as Mexico, industrialisation programmes like the Maquiladora initiative along the USA-Mexico border have drawn large populations into cities such as Tijuana and Ciudad Juárez. These cities rely heavily on the surrounding and faraway environments for water, industrial inputs, and labour. In return, they export large quantities of hazardous waste, such as benzene solvents and pesticides, directly into the surrounding environment. The health impacts have been severe: many residents rely on contaminated open water sources, and rates of birth defects such as anencephaly have been reported at four times the national average. In contrast, while poverty in these LDC cities may promote some degree of informal circularity, it often occurs in hazardous or unregulated ways. In the Maquiladora towns, many poor residents rely on scavenging discarded industrial materials, repurposing packaging, or using informal recycling to make ends meet. However, this is insufficient to counterbalance the environmental burdens posed by rapid, unmanaged urban growth. Without strong environmental governance, such practices expose communities to toxic residues, unsafe drinking water, and long-term health risks, highlighting the severe consequences for both people and ecosystems.

**Conclusion**

Large cities place significant demands on the natural environment, but these demands vary with development level and how cities are managed. In less developed cities, like those along the Mexico-USA border, poor waste management causes serious local pollution and health problems. In contrast, cities like Singapore reduce their ecological footprint through circular economy strategies. However, even well-managed cities continue to rely on faraway resources, such as food, water, and materials, to maintain liveability. Overall, all large cities place pressure on both nearby and distant environments, but the form and intensity of this pressure differ. Less developed cities tend to have more immediate and visible environmental damage, while developed cities externalise their impacts. As urban growth continues, especially in Asia, the scale of environmental demand is likely to rise, with its effects shaped by how each city manages its growth and waste.

**5. 'Urban reimaging increases social inequalities.' Evaluate this statement.**

**Cambridge Examiner Comments:**

There was some variation in what was included by candidates as 'urban re-imaging'. Stronger responses compared examples where such re-imaging had led to increased social inequalities such as the Rio Olympics, for example:

*'Many of the favelas were bulldozed to make way for the Olympic village and associated infrastructures, so the poor were sacrificed for the new image.'*

This was an example that commented on reduced inequalities through cultural or heritage re-imaging:

*'In the case of the re-imaging of Liverpool docks where the cultural heritage of the area was celebrated, such as the creation of the Beatles Museum, jobs were created for a wide range of the local population who saw the image as belonging to all of them, regardless of their background or characteristics.'*

Evaluation could have been more developed, as to what the features that led to some re-imaging increasing or decreasing inequalities were, for example:

*'Often the key to reducing the resulting inequalities is whether the scheme is imposed, top down, or comesfrom the grass roots, bottom up, with the whole local community involved in its development.'*

**Introduction**

Urban reimaging is the deliberate attempt to change a city's negative perception by crafting and promoting a more attractive image to residents, investors, and visitors. It becomes necessary when cities experience economic decline, population loss, urban decay, or are seen as uncompetitive in a globalising world. Reimaging aims to revitalise such areas, attract investment, and boost liveability. However, while it can bring visible transformation, it may also deepen social inequalities by displacing local communities or unevenly distributing benefits. This essay evaluates the extent to which urban reimaging increases social inequalities, using examples from East London, Barcelona's Raval District, Singapore, and Vancouver.

**Paragraph 1:** Urban reimaging can increase social exclusion and displacement

One key way reimaging contributes to social inequality is through the displacement of lower-income residents and the exclusion of local communities from redeveloped spaces. In Barcelona's Raval District, reimaging was driven by its negative image as a rundown inner-city neighbourhood marked by crime, drug use, and urban decay in the 1980s. Authorities sought to transform its image into a vibrant cultural quarter. However, while physical improvements and new cultural amenities were introduced, many long-term residents, particularly immigrants and the working class, felt alienated. The upgraded urban landscape was geared toward tourists and wealthier newcomers, creating a sense of cultural exclusion and loss of place identity.
A similar pattern occurred in Singapore's Chinatown, which had declined commercially by the 1980s due to modernisation, urban renewal, and loss of traditional trades. The government reimaged it into a conservation and tourist zone to preserve architectural heritage and promote a sense of national identity. Yet, the result was gentrification: upmarket shops and restaurants replaced traditional trades, pricing out older residents and diminishing the area's role as a lived community space.

**Paragraph 2:** Employment opportunities and economic growth from reimaging can be uneven and reinforce inequalities

Another way reimaging increases inequality is through the polarisation of job opportunities and services. In East

London, reimaging was driven by the area's long history of deprivation, high unemployment, and poor public infrastructure. The 2012 London Olympics were used as a catalyst to attract investment and regenerate Newham, one of the UK's most deprived boroughs. The Games brought economic growth, nearly GBP 400 million in investment, and a 40% increase in local employment. However, many new jobs were either short-term or low-wage (e.g. security, cleaning), while high-paying roles in finance and media largely bypassed local residents due to skills mismatches. Nearby developments such as Canary Wharf—itself a product of earlier reimaging efforts after the Docklands' post-industrial collapse—reflected similar issues: while intended to stimulate economic revitalisation, the flagship developments primarily served elite professionals, reinforcing social and spatial divides.These examples show that although reimaging can stimulate economic activity, it may do so in ways that exclude the most deprived, entrenching inequality through unequal access to benefits.

**Paragraph 3:** Urban reimaging does not always increase inequality—community-involved strategies can promote inclusion

However, when urban reimaging is inclusive and participatory, it can reduce social inequality. In Vancouver, reimaging was prompted by the need to maintain global competitiveness and address environmental sustainability. The city faced pressures from rapid urbanisation, rising carbon emissions, and the need for green economic diversification. The Greenest City Action Plan adopted a sustainability-focused image, underpinned by extensive public consultation and collaboration with stakeholders. Outcomes included the creation of 90% more green jobs, a 330km cycling network, and 150,000 trees planted. Efforts were made to ensure benefits extended to a broad cross-section of the population—e.g. through community gardens, inclusive green infrastructure, and support for local businesses. Likewise, East London's post-Olympic Newham did show some social gains: levels of deprivation decreased in the years following the Games. These suggest that when investments are coupled with improvements to social infrastructure and inclusive policies, reimaging can improve rather than worsen equity.

**Conclusion**

While urban reimaging often risks deepening social inequalities—through displacement, cultural exclusion, and uneven distribution of economic benefits—these effects are not inevitable. As seen in Barcelona and Singapore, top-down or commercially driven reimaging strategies tend to favour wealthier groups. However, when cities like Vancouver adopt inclusive, sustainability-focused approaches with strong community involvement, reimaging can enhance social equity. The key lies in how reimaging is designed and for whom it is intended. Urban transformation must be accompanied by meaningful engagement and policies that ensure shared benefits if it is to avoid exacerbating social divides.

**6.** 'Humans are responsible for climate variability.'

Evaluate this statement. [13]

**Climate variability** refers to variations in the mean state and other statistics such as standard deviations and the occurrence of extremes of the climate on all spatial and temporal scales beyond that of individual weather events. Climate variability may be due to **natural factors** or **human factors**. **Contemporary climate change** is the change in the state of the climate that persists for an extended period, typically decades or longer in more recent times. The IPCC uses the pre-industrial period – the period prior to the onset of large-scale industrial activity around 1750 – as a reference. The reference period 1850–1900 is used to approximate pre-industrial global mean surface temperature. CCC is primarily caused by human activities such as burning fossil fuels, deforestation, and industrial processes which cause enhanced GH Effect and global warming. Thus, humans are **not responsible for natural climate variability**, but they **are responsible for contemporary climate change.**

**Para 1**

Although natural drivers like Milankovitch cycles continue to influence Earth's climate, current orbital configurations actually predict a gradual cooling trend. Presently, Earth's orbit is nearly circular and its axial tilt is decreasing — both factors that, in the absence of other forces, should reduce solar insolation and promote glacial conditions. However, global temperatures have risen by more than 1°C since the late 19th century, contradicting what Milankovitch cycles would suggest. This divergence strongly implicates human activities as the dominant cause of recent climate variability. The widespread burning of fossil fuels, rapid deforestation, and expansion of industrial agriculture have significantly increased atmospheric concentrations of greenhouse gases — with $CO_2$ levels rising from 280 ppm in pre-industrial times to over 400 ppm today. These emissions have intensified the greenhouse effect, trapping more heat and raising global temperatures. Additionally, human-induced changes have weakened natural carbon sinks, such as forests and oceans, which would otherwise absorb some of these emissions. This not only amplifies the warming but also triggers positive feedback mechanisms, such as melting permafrost and declining Arctic albedo, further reinforcing anthropogenic climate change. Therefore, while Earth's orbital cycles point toward a cooling phase, the opposite trend observed in temperature records underscores the unprecedented influence of human activity.

**Para 2**

For most of Earth's geological history, including the Pleistocene epoch (2.6 million to 11,700 years ago), climate variability was governed entirely by natural factors. During this time, repeated glacial and interglacial cycles were primarily triggered by Milankovitch cycles — long-term variations in Earth's orbit (eccentricity), axial tilt (obliquity), and wobble (precession) — which altered the distribution and intensity of solar radiation across the planet. Ice core and ocean sediment records provide clear evidence of these natural fluctuations, revealing alternating periods of global cooling and warming long before human industrial activity began. For example, the Younger Dryas (~12,000 years ago) was a sudden return to glacial conditions likely caused by disruptions in thermohaline circulation due to a surge of meltwater, independent of any anthropogenic input. Modern humans (Homo sapiens) only appeared around 200,000 years ago and remained a negligible climatic force until the onset of large-scale agriculture and deforestation during the Holocene. It was not until the Industrial Revolution, beginning around 1750, that humans began to exert a geologically significant influence on the climate, marking the start of what some scientists now refer to as the Anthropocene epoch. Until that point, climate variability was overwhelmingly shaped by natural processes.

**Para 3**

Human activity can also trigger negative feedback mechanisms that mitigate warming. This suggests that climate variability is moderated by natural factors, rather than human activity. However, these effects are limited in scope and poorly understood. For example, higher global temperatures can lead to increased evaporation and cloud formation, which may reflect incoming solar radiation and cool the Earth's surface. Additionally, elevated $CO_2$ levels may stimulate plant growth in certain regions, enhancing photosynthesis and carbon uptake. However, there is great uncertainty surrounding these negative feedback mechanisms: cloud reflectivity depends on cloud type and altitude, and plant growth is limited by other factors like water and nutrients. Furthermore, ocean acidification and deforestation often offset these potential gains. Consequently, negative feedbacks linked to human activity have not been sufficient to counteract the dominant warming trends, as global temperatures continue to rise despite their presence. Thus, while these mechanisms exist, their impact is minimal compared to the magnitude of anthropogenic forcing.

**Conclusion**

In conclusion, while climate variability has historically been driven by natural factors such as changes in solar radiation, thermohaline circulation, and orbital forcing, all of which operate independently of human influence, the role of humans in recent times cannot be entirely dismissed. Feedback mechanisms, though natural in origin, are increasingly being activated or intensified by human-induced global warming, thus amplifying contemporary climate change. However, these human contributions tend to enhance existing natural variability rather than initiate it. Therefore, the statement is **valid** if we were to consider climate variability in the sense of contemporary climate change, However, the statement is **invalid** if we were to consider climate variability more generally.