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HCI-J1-NOTES

INDIGO

ISSUES	ENVIRONMENT

Possible Essay Questions

1. How far should protecting the environment be a priority in your society? (VJC)
2. 'Technology is the most effective solution to environmental problems.' How far do you agree? (ASRJC)
3. Should every country play an equal part in saving the environment? (MI)
4. How far should protecting the environment be a priority in your society?
5. 'Technology is the most effective solution to environmental problems.' How far do you agree?

Preservation VS Progress

The world that we live in has brought us tremendous comfort and luxury. As consumers become richer, they possess unprecedented wealth to enjoy the goods and services offered by consumerist culture. However, in exchange for a high standard of living, how we produce, consume, and dispose of these goods has greatly harmed our environment. Thus, **environmentalists**, concerned with the health of our ecology, have **advocated feverishly for a change in our lifestyles**. To them, producers should reform their manufacturing processes, and consumers should adopt a minimalist, rustic way of living. This **shift is necessary for progress**, where humanity **develops a sustainable relationship with the earth**. Such a change challenges the **current zeitgeist of our post-industrial society fixated on consumption and material enjoyment**. Should we then **continue with the status quo**, or should we instead **change for the better**?

Denmark – Towards Sustainability

Denmark has firmly established **itself as a global leader in environmental sustainability** through the implementation of progressive green policies. A cornerstone of this commitment is the nation's ambitious goal to achieve **a 70% reduction in greenhouse gas emissions by 2030 compared to 1990**. They aim to achieve full **climate neutrality** by 2050. Denmark has significantly invested in **renewable energy** to realise these objectives, with wind power playing a pivotal role. As of 2019, wind

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energy accounted for 57% of the country's electricity generation, underscoring Denmark's status as a pioneer in harnessing renewable resources.

In addition to transforming its energy sector, Denmark has introduced innovative policies to **promote sustainable land use and agriculture**. In November 2024, Danish lawmakers agreed to plant 1 billion trees and convert 10% of farmland into forests and natural habitats over the next two decades, aiming to reduce fertiliser usage and combat climate change. This initiative, described as the most significant change to the Danish landscape in over a century, is supported by a 43 billion kroner ($6.1 billion) investment allocated for acquiring land from farmers. Furthermore, Denmark has announced plans to **implement the world's first carbon tax on farmers**, set to commence in 2030. The tax will target emissions from livestock to mitigate environmental impact further.

Essay Optimism VS Pessimism

Beyond the **in-principle arguments on whether we should progress and do our part for the environment**, there are debates about **the current practices and policies** adopted to address climate change. While authorities have begun implementing policies that seem to reform environmentally harmful practices, environmentalists **argue that such initiatives are merely tokenistic**; they do not **address the root cause of the problem, nor are they sufficient**. Criticisms are often targeted against the **effectiveness of governmental measures and technological tools** in transforming society towards a greener future. Depending on how we evaluate the issues, **one can be happy with the solutions**, confidently believing in their potential to bring improvement, or **disappointed**, believing that better measures can be adopted to replace existing ones.

Renewable Energy – Alternatives for Humanity

Alternative energy sources, such as **wind, solar, and hydroelectric power**, play a critical role in **reducing carbon footprints** by offering clean alternatives to fossil fuels. For instance, according to the International **Renewable Energy Agency (IRENA), every megawatt-hour of electricity** generated from renewable sources like wind or **solar reduces carbon dioxide emissions by approximately 0.5 to 0.9 metric tons**, compared to coal-fired electricity. Countries that have embraced renewables, like **Denmark and Iceland**, showcase the effectiveness of these sources. Denmark generates over 50% of its electricity from wind power, significantly cutting its greenhouse gas emissions, while Iceland utilises 100%

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renewable energy, primarily geothermal and hydropower, drastically lowering its carbon footprint. Additionally, the adoption of solar energy in the United States reduced carbon emissions by over 100 million metric tons annually as of 2021, highlighting the immense environmental benefits of transitioning to renewables.

However, despite their promise, alternative energy sources face challenges that limit their effectiveness. One major issue is **intermittency**; wind and solar power depend on weather conditions, making energy generation **unreliable without proper storage solutions**. For example, solar panels produce no energy at night, and wind turbines are ineffective on calm days. This often **necessitates backup systems reliant on fossil fuels**, undermining their potential to replace traditional energy sources fully. Additionally, **the production and disposa**l of renewable energy technologies, like solar panels and wind turbines, can have significant environmental impacts, such **as mining rare earth metals and waste generation**. High initial costs and infrastructure requirements further slow the transition, particularly in developing countries with limited resources.

Idealism VS Pragmatism

Lastly, assuming that we should protect the environment and that practical solutions are accessible to willing parties, th**e debate now concerns the extent to which we assign responsibility**. Ideally, we wish that **every country in the world share the burden of climate preservation**. After all, a complex problem like global heating requires a concerted effort by humanity to pool together their strengths and resources to produce the optimal outcome. However, realistically, **such an approach may paralyse and incapacitate the economy of less affluent nations**. These **countries do not have the luxury of investing in environmental policies**, which are **often expensive**. Moreover, given that **industrial giants and their manufacturing processes disproportionately contribute to the problem of global heating**, it is **unfair** to expect innocent parties to put in the same amount of effort in alleviating the climate crisis.

Bangladesh – Wealth Accumulation and Industrialisation

Bangladesh, **a lower-middle-income country**, provides a compelling example of a nation that **has rapidly industrialised** and, as a result, has seen a significant rise in its **contribution to climate change**. Over the past few decades, Bangladesh has emerged as a **global hub for the textile and garment** industry, accounting for over 80% of

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its export earnings and employing millions of people. However, this rapid industrialisation has come at **an environmental cost**. According to a 2022 report by Climate Watch, Bangladesh's **CO_2 emissions increased by over 300% between 1990 and 2020**, driven by **industrial growth** and an increasing reliance on coal and natural gas for energy production. As of 2021, the **country emits roughly 1.2 metric tons of CO_2 per capita annually**—a modest figure compared to wealthy nations but substantial for a densely populated developing country with over 165 million people.

The environmental impact of Bangladesh's industrialisation extends beyond carbon emissions. The garment sector, for instance, is a major consumer of water and a significant polluter. The World Bank estimates that the textile industry in Bangladesh discharges over 2,000 tons of wastewater and chemical-laden dye into rivers every day, contributing to water pollution and ecosystem degradation. Furthermore, the country faces **an energy paradox**: while **industrialisation has lifted millions out of poverty, its dependence on fossil fuels, such as coal-fired power plants, exacerbates local air pollution and global climate change**.

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