



Levelling Up Grades Through Skills

H2 Geography

Human Geography | Cluster 2

<p><u>Chapter 1:</u> Consumption Environment</p>
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Main Reading: Environmental Policy and Governance

Introduction

- Environmental governance has become increasingly important to us in the modern day. Carbon credit, emission control and reduction obligations have become of the utmost importance for modern economies and states.
- How can we explore this modern economy through the lens of GP-essay frameworks? In this package, I will explore 3 key terms we must understand: environmental degradation's relationship with consumers and the economy, environmental laws and their intersection with countries' policy goals, and the international world's responsibility for climate change.

Environment and the Consumer/Firm

Consumption and the question of how to solve it remains the pressing priority of many climate change policies. The largest economies in the world run on the manufacture and the consumption of goods, and carbon-emission processes remain a key part of this economy. The energy sector is the largest contributor to global carbon emissions, responsible for about 73% of total emissions. (Source: International Energy Agency) Agriculture contributes to approximately 24% of global greenhouse gas emissions. (Source: Food and Agriculture Organization of the United Nations) However, these are complex terms that are not easy to isolate: how would one cut down on, for instance, energy chains which might power the largest developing countries in the world, like India? This is the argument advanced by companies like Shell, Chevron and Gazprom, large firms in the oil and gas industries.

One particular problem is how to define the responsibility of reducing the consumption of individuals or firms. Although 68 percent of respondents in a 2024 poll said they knew how their behavior affected harmful greenhouse gas emissions, some segments (e.g., Gen Z and boomers) reported lower awareness. Even those respondents aware of their climate education could not accurately assess the relative impact of habit changes and certain behaviors, such as meat consumption, on climate change. Further, to legislate against firms would require a larger and more comprehensive index than is currently available.

In 2020, over two-thirds of consumers embraced cutting down on single-use plastics, followed by shopping for environmentally sustainable brands and reducing overall spending on new items. Younger Millennials show the highest engagement in sustainability, while Gen Z prioritizes supporting ethical brands. Older demographics, especially over 45s, focus on reducing single-use plastics and carbon emissions.

Environmental Law and Governance

One major challenge to environmental law is its impact on the state: states often assume full responsibility for intervening in environmental pollution issues, but they also need to create environments favourable for growth. Take for instance Singapore.

Singapore has indeed offered significant legislation to support its international stance on fighting carbon emissions. Singapore introduced the Carbon Pricing Act in 2018, implementing a carbon tax on large emitters to encourage emissions reduction. It has set from 2019-2023 an initial tax of 5 dollars per ton of carbon emission, to be raised to 50-80 dollars by 2030. (Source: Ministry of Sustainability and the Environment,

Singapore) The Singapore Green Plan 2030 aims to advance sustainable development and reduce emissions across various sectors, and in particular aims to totally transition its newly registered cars to cleaner-energy or electric models by 2030. (Source: Ministry of Sustainability and the Environment, Singapore) Singapore is investing heavily in renewable energy and aims to quadruple its solar energy deployment by 2025.

However, it also faces significant challenges: some have argued that Jurong Island, which is a key component of Singapore's overall emission profile, remains a sore thumb. Jurong Island's carbon emissions is estimated at about 27 million tonnes or 54% of Singapore total carbon emissions in 2019. Can Singapore afford to reduce this carbon emissions source, given it accounts for Singapore's multibillion dollar refining industry? Further, how can Singapore attempt to control emissions without forfeiting its place in the global trading economy?

International Responsibility

Finally, the issue of international responsibility hangs over discussions of who should ultimately take action on climate change. This is because climate change is a global phenomenon, but its effects are unequal on the systems which power the global economy. One example of economic trade is the ocean/maritime economy. The ocean economy was estimated in 2020 at \$1.3 trillion, representing about 6% of global trade (\$23 trillion). This includes \$681.4 billion from ocean-based goods and \$628.2 billion from ocean-based services. The sea-level rise anticipated with climate change will hit developing countries the hardest within this economy. One of the biggest impacts is in coastal developing countries and Small Island Developing States (SIDS). For example, Cambodia's sand industry has devastated the coastal ecosystems which contribute to 17% of the country's developing economy. Further, cities like Jakarta are likely to sink below sea level and face existential threats within the next 100 years based on a 2021 survey.

Hence, one key term to consider here is the free-rider problem – that countries which suffer the most from climate change have more incentive to act than those countries which contribute the most to climate change, but the latter often have more incentive to preserve their pathways to economic growth. International efforts like the Copenhagen Accords of 2008 and the Paris Climate Conference of 2020 have failed precisely because of the limited mechanisms available by states to punish those states which do not meet targets. National legislations can help create the mechanisms for states to meet internal targets - the USA rejoined the Paris Agreement in 2021, committing to reducing greenhouse gas emissions by 50-52% below 2005 levels by 2030. Nevertheless, states generally cannot offer significant incentives to other states beyond pressure at international bodies.

An additional question is this: how can emissions targets meet the needs of individual states while preserving their peoples' livelihoods? Existing pathways exist for states to prioritise climate change, but these are often expensive even for developed countries. For example, China is the world's largest emitter, accounting for 27% of global emissions, while the entire European Union contributes 23%. (Source: Global Carbon Project) However, China has historically retained a negative stance towards attempts to limit its own carbon output beyond internal policy targets due to its developing-country status. China's heavy reliance on coal presents a significant obstacle to achieving its emissions reduction targets in this regard, as coal remains a crucial source of energy for industries and households.

Findings and Discussion: Key Environmental Factors

China's Actions and Statistics:

1. **Renewable Energy Investment:** China leads the world in renewable energy investment, with over \$83 billion invested in 2020 alone.
2. **Electric Vehicle Market:** China boasts the largest electric vehicle market globally, accounting for more than half of global electric car sales.
3. **Coal Consumption:** Despite progress in renewables, China remains heavily reliant on coal, which accounted for around 58% of its energy consumption in 2020.
4. **Emissions Reduction Target:** China aims to peak its carbon dioxide emissions before 2030 and achieve carbon neutrality by 2060.
5. **Renewable Energy Capacity:** China has the world's largest installed capacity of wind and solar energy, with over 350 gigawatts installed as of 2021.

USA's Actions and Statistics:

1. **Paris Agreement Re-entry:** The USA rejoined the Paris Agreement in 2021, committing to reducing greenhouse gas emissions by 50-52% below 2005 levels by 2030.
2. **Renewable Energy Growth:** Renewable energy sources, including wind and solar, accounted for more than 20% of total electricity generation in the USA in 2020.
3. **Fossil Fuel Production:** The USA is a significant producer of fossil fuels, ranking as the world's largest producer of natural gas and the second-largest producer of crude oil.
4. **Clean Energy Jobs:** The clean energy sector employed 3.3 million Americans in 2022, with employment in solar and wind energy surpassing employment in fossil fuel extraction.
5. **Infrastructure Investments:** The USA plans to invest heavily in infrastructure, including renewable energy, as part of efforts to modernize and decarbonize its economy.

Singapore's ACTIONS AND STATISTICS

1. **Carbon Emissions by Sector:** Singapore's carbon emissions are mainly attributed to the industry and transportation sectors, which collectively account for over 80% of the country's total emissions.
2. **Money Invested in Sustainability Policies:** The Singapore government has committed S\$1.5 billion (approximately US\$1.1 billion) to support sustainability initiatives and address climate change over the next five years.
3. **Key Policy Targets:** Singapore aims to reduce its emissions intensity (emissions per unit of GDP) by 36% from 2005 levels by 2030. Additionally, it targets achieving net-zero emissions as soon as viable in the second half of the 21st century.

Reading 1: Comprehension

- 1 Whether the men fleeing for Europe should be considered some of the world's first climate refugees was debatable. If creeping sands (desertification) and emptying oceans (overfishing) were pushing them out, cities and distant countries, with their promises of electricity, jobs, and education, also exerted a pull. Senegal's greatest population flow was internal—from rural to urban, hut to slum—and it followed a pattern being repeated across the globe in the new millennium, the first time in human history when more people have lived in cities than in the countryside. Rare was the Senegalese migrant who went directly from Sahel to pirogue. Rarer still was one who could point to a single cause—the changing climate—in explaining his move. But the many factors, in aggregate, were exactly what Europe feared. Africa would warm 1.5 times faster than the rest of the world, warned the IPCC (Intergovernmental Panel on Climate Change)—and the Western Sahara region would warm the most. “Climate change is best viewed as a threat multiplier which exacerbates existing trends, tensions and instability,” wrote the Spanish diplomat Javier Solana, the EU foreign relations chief and former head of NATO, in 2008. “There will be millions of ‘environmental’ migrants by 2020 with climate change as one of the major drivers of this phenomenon . . . Europe must expect substantially increased migratory pressure.”
- 2 Today's boat people could be but a hint of what was to come. And the Continent's response, notwithstanding its efforts at emissions cuts in Copenhagen and at other climate summits, was also a hint of what was to come. It was creating a “Fortress Europe,” in the words of Amnesty International—an “armed lifeboat,” in the words of the journalist Christian Parenti.

- 3 Senegal, Africa's testing grounds for the Great Green Wall, was also Europe's testing grounds for a virtual wall to keep Africans out. The European effort was not as conspicuous as the new fence I saw near the All-American Canal along the United States border with Mexico—where by 2080, according to a recent Princeton study, climate change's effects on agriculture will cause the exodus of up to 10 percent of the adult population. Nor was it as conspicuous as the twenty-one-hundred-mile fence India was completing around sinking Bangladesh or the twin fences Israel announced in 2010 to seal off the Sinai from sub-Saharan migrants. But it was comprehensive: Spanish and Italian patrol boats, emblazoned with the logo of Frontex, the new, pan-European border agency founded in 2005, were already cruising the Senegalese coast by the time I arrived. European planes and helicopters ran aerial surveillance. Soon, a satellite link geomonitoring would connect immigration-control centers in Europe and Africa to help track boat people, and the Continent would be secured by the proposed European Border Surveillance System: a complex of infrared cameras, ground radars, sensors, and aerial drones. The European Parliament would pass its controversial Return Directive, a common deportation policy that allowed migrants to be held without charge for up to eighteen months before being shipped
- 4 home.

Spain, known for its comparative tolerance of immigration, was trying to offer carrots as well as sticks. It opened six new West African embassies in four years under its migration-focused Plan África, and its development spending jumped sevenfold. Before Spain's recession sent unemployment rates to heights not seen since the dictatorship of Francisco Franco, it began a quota program for guest workers. If they came to Spain legally, laborers escaping high food prices and barren seas could win year long stints on massive corporate farms or in a still thriving fishing industry. Some Senegalese got contracts with Acciona, one of the world's biggest builders of

5 desalination plants, which Spain was constructing at a frenzied pace matched only by Israel and Australia, trying to keep up with its own drought and desertification.

Spain spent millions of euros each year luring northern European tourists to its beaches. At the height of the Canary Islands crisis, it launched a marketing blitz in Senegal, too. With the help of the advertising multinational Ogilvy, it plastered Dakar's buses with images of shipwrecks and ran radio ads warning of the dangers of illegal migration. In one television spot, the legendary Senegalese singer Youssou N'Dour sat alone in a wooden pirogue, waves crashing in the background. "You already know how this story ends," he said in Wolof. "Don't risk your life for nothing. You are the future of Africa."

(Note: pirogue is a type of housing common to Senegal and other West African states.)

Adapted from Windfall: The Booming Business of Global Warming (Mackenzie Funk 2014)

What does the term "armed lifeboat" in paragraph 2 imply about Europe's stance on climate change migration? Explain in your own words. (2m)

Based on paragraph 1, summarize what is causing the moving of migrants across the Sahel to Europe. (3m)

Paragraph 4 notes that "carrots as well as sticks" have been employed. Based on your understanding of the paragraph, why might Spain use these tactics to tackle climate change related immigration? (3m)

Why does the paragraph 3 draw from such wide-ranging examples to discuss border control? Give one example of a use of a statistic and suggest its impact in the text.

(3m)

In paragraph 5, What is Youssouf O’Dour implying when he notes “you know how this story ends”? (2m)

From Paragraphs 3 to 5,

Summarise how states have used various measures to address climate migration. Use your own words and write no more than 120 words.

To combat climate change, states have used measures such as

Reading 2: Essay

'We are consuming too much for our own good.' Is this true of society today?

Scope	
Stance	
Ideas and Opinions	This depends on you! What kinds of arguments can you make for one stance or the other? (Discuss with teacher!)
Final Stance	Remember, as long as you make a balanced argument, don't be afraid to take a full stance!

In today's era of capitalism, mankind has been consuming a voracious amount of resources, from excessive purchase of material goods to expending the Earth's scarce resources. This has given rise to the claim that society today is consuming too much for our own good. While some may argue that consumption is a positive force that has improved our socio-economic standards, I believe that we are currently embarking on an unhealthy and unsustainable trend of overconsumption that needs to be controlled.

1. Overconsumption has led to the depletion of resources on Earth which does permanent harm and threatens our long-term survival.

- Our culture of overconsumption has generated a large increase in demand for general goods and services, resulting in an increase in the amount of resources required to produce these goods.
- This has led to the over extraction of minerals, the unsustainable usage of water and other resources, as well as irreversible environmental degradation.
- According to a study done by the Global Footprint Network, we are consuming the equivalent of 1.6 planets a year in terms of cropland, fish stocks, forests and carbon emissions.
- Such excessive rates of overconsumption have indeed taken a severe toll on our environment. The world today has also witnessed an increase in freak weather phenomena. For instance, El Nino and La Nina have been exacerbated by uneven and

unnatural temperature changes. These adverse weather conditions have not only taken a toll on fishing industries, but have also contributed to prolonged heat waves in Europe which have taken many lives.

- Moreover, our rapid pace of industrialisation to fulfil our material needs has severely worsened the rate of deforestation. If current deforestation rate continues, The Amazon Rainforest, the world's largest rainforest, which is also home to 10% of the world species, is estimated to decrease in size by 27% by 2030. This places our environment in jeopardy, harms the flora and fauna, and may potentially threaten the agricultural industries.

□ The over-consumption largely arises from human's need to seek immediate gratification. Due to the aggressive campaigning and advertising by large brands, consumers increasingly believe that their happiness and sense of status is tied to their ability to afford as many new products as possible.

□ This contributes to a cycle of consumption and production, where firms feel pressure to come up with new product cycles constantly, and consumers feel obliged to purchase these new products, even if they do not actually need it.

□ This irresponsible and excessive pattern of consumption has caused resources to be expended at alarming rates, which has caused the accelerated and rapid degradation of our environment.

□ As this is unsustainable, the current rate of excessive over-consumption will jeopardise our future standard of living.

2. The overconsumption of consumer products by mankind has also led to poor mental health which has an inimical effect on our quality of life.

- Overconsumption can lead to one feeling satiated, however, the pleasure one derives from it is fleeting. The endless pursuit for consumer goods and luxury is evidently unsustainable, and if excessive, can lead to psychological issues and harm to society.
- Such a culture of overconsumption has undeniably led to the growth of materialism and consumerism in our society, where individuals measure their success in life by the amount of material goods they possess.
- This may lead to unnecessary feelings of jealousy over others' material goods, or worse still, feelings of competition in society over such material acquisitions. Individuals are then more likely to be less fulfilled and contented with their own life, as they constantly seek to outcompete others.
- Overall, there will be heightened stress and anxiety levels, resulting in an unhappy society.
- In South Korea, the desire to consume more has led to a burgeoning number of South Koreans working longer hours and spending less time on family, friends and relationships.
- Many have lamented that the "rat race" phenomenon in South Korea has led to a gradual erosion of the values of community, spirituality and integrity as competition and materialism rear their ugly head.
- Consequently, the suicide rate in South Korea amongst teenagers has increased from 7.2 deaths per 100,000 in 2015 to 7.8 in 2016, and its female suicide rate is the highest amongst OECD countries with 15.0 deaths per 100,000.

? The preoccupation with being able to obtain material goods to improve satisfaction and one's social standing has led to a blind race in the workplace and in life to amass the most affluence.

? Individuals give out other non-material factors in their life as a result, such as spending time with family and friends, and re-charging or de-stressing.

? Hence, although consumption can initially contribute to an individual's emotional well-being, today's excessive rate of consumption has taken a severe toll on our quality of life.

3. **The overconsumption of products is also threatening our physical health, and this may greatly inconvenience our daily life.**

- With increasing prosperity due to globalization, overconsumption of food is now a burgeoning problem in many parts of the world. The overconsumption of food has led to obesity and other weight related problems, which may potentially escalate into chronic health conditions such as diabetes, coronary heart diseases and even hypertension.
- Such diseases are difficult to deal with and control, and if contracted early in life, can greatly inconvenience an individual and reduce their quality of life. It also potentially reduces one's life expectancy and hence ability to enjoy his/her golden years productively.
- In Pakistan, corporate profits have been increasing, however this unbridled rate of consumption has led to an increase in the country's obesity rate. Children under the age of seven are already having fast food almost twice a day, similar to the United States which is the world's most obese nation by percentage, in terms of unhealthy food consumption.
- Pakistan's childhood obesity rate is now alarming, with 22.2% of individuals over the age of 15 crossing the threshold of obesity. If left uncontrolled, this is likely to escalate into to a long list of health problems for such individuals in the future.
- The overconsumption of products have also led to mass manufacturing and consequently, immense pollution of our environment.
- Many developing countries are now experiencing the health perils of such pollution, the most distinct example being China. In China's capital city, Beijing, the PM2.5 levels are 6 times above the World Health Organization safety guidelines, and according to the International Energy Agency, it is estimated that severe air pollution has shortened life expectancy in China by an average 25 months.

? Evidently, our consumption habits is threatening our own physical health, and causing us great harm.

4. **However, it may be argued that current levels of consumption are justifiable and even necessary as they contribute to economic growth and our material well-being.**

- A country's progress is often measured by its Gross Domestic Product. The production and consumption of goods is linked to economic growth which means a higher standard of living and enhanced quality of life. This is experienced both on the societal as well as on the individual level.
- The Industrial Revolution was fuelled by heavy domestic consumption and brought extensive progress to mankind. The Industrial Revolution was partially driven by the

clearing of forests to increase the land space available to develop factories and machines, and this is arguably a necessary evil for the benefit of mankind.

- Singapore experienced a meteoric economic rise fuelled by domestic consumption and industrial growth. It is nevertheless able to mitigate its environmental degradation and preserve a healthy level of greenery in the nation.

□ Hence, this has led some to believe that the concerns of overconsumption are exaggerated as consumption is necessary for our economic prosperity and consequently enjoyment.

5. Furthermore, people have increasingly realised that overconsumption is a legitimate problem and have made efforts to regulate their rate of consumption.

- Governments and NGOs have made efforts to legislate and regulate consumption, such as advocating for the Paris Climate agreement which aims to reduce greenhouse emissions and unsustainable use of resources.
- On the individual level, more and more people are exercising self-control, diet and discipline in their consumption habits for better health.
- For instance, “No Shop Day” has become an increasingly popular phenomenon in North America and Europe, where citizens engage in initiatives to restrict their spending on food, fashion and other unnecessary products.
- There is a growing trend to declutter one’s life, as popularised by a bestseller written by Japanese cleaning consultant, Marie Kondo. People are encouraged to purge unnecessary items, treat their objects with respect and make more prudent spending decisions.
- Many more people are also adopting new ways of life that focus on reducing waste and environmental harm. One such example is the minimalist lifestyle which centres around the idea of living with less. Individuals who follow the minimalist movement spend more on experiences rather than material goods, and make sensible consumer choices by purchasing only what they need.
- This suggests that there is a growing awareness of the pernicious effects of over-consumption due to material greed, and that citizens and governments are taking conscious efforts to combat such a negative trend.
- These progressive efforts to readjust our extravagant culture of consumption suggests that it is not too late, and that we are not consuming too much for our own good yet, as it is still possible to reverse such an unnerving trend.