

1. What are the main reasons why states cooperate on environmental problem-solving through international regimes according to a neo-liberal/institutionalist perspective?

Hva er de viktigste grunnene til at stater samarbeider om å løse miljøproblemer gjennom internasjonale regimer ifølge et nyliberalistisk/institusjonalistisk perspektiv?

Kva er dei viktigaste grunnane til at statar samarbeider om å løyse miljøproblem gjennom internasjonale regime ifølgje eit nyliberalistisk/institusjonalistisk perspektiv?

This question is based on the Hasenclever, Mayer, and Rittberger (1996) article. The question is worded as 'a neo-liberalist'/institutionalist perspective instead of 'liberalist perspectives' on purpose, because we are only out for the very overarching reasons. Those who treat this as a question about liberalism in general should not be punished for this, but they still need to distinguish between the different approaches within liberalism to get top score.

Students are expected to know that in this view states are rational egoists seeking absolute gains. In order to get a middle grade, students are expected to know two facts: that according to liberalists states cooperate in order to realize absolute gains, and this is in terms of environmental problems often sought achieved through regimes. Better answers will elaborate more on how regimes according to liberalists help states realizing common interests (public goods) in overcoming collective action problems. This is mainly done through increased information flow creating increased transparency and repeated interaction which reduces the Prisoner's Dilemma. Students that discuss the differences between situation-structuralism, contractualism, the problem-structural approach, and institutional bargaining should be given extra credit for this.

If students bring in interest-based models to explain cooperation in a regime in a fruitful way, they should be credited for this.

2. Why is anthropogenic climate change a malign environmental problem to solve?

Hvorfor er menneskeskapt klimaendring et spesielt vanskelig miljøproblem å løse?

Kvifor er menneskeskapa klimaendringar eit særskilt vanskeleg miljøproblem å løyse?

This questions draws on Underdal (2002) and Hovi, Sprinz, and Underdal (2009). Most answers should say that climate change is a particularly malign environmental problem to solve both because of the intellectual complexity and because of its political malignancy – primarily due to time-inconsistency, domestic politics, and international anarchy, and the interplay between these. The justice vs. abatement argument has also proved important in blocking progress in recent negotiations. Whereas scientific malignancy has not been in focus, the students should be able to say more on the political malignancy, and good answers will also say that the two forms of malignancy interact to make matters worse. In particular, they should bring in the extent to which there are problems of incongruity, caused either by actors biased in either costs and/or benefits of a certain policy or regime; that competition and/or externalities can give rise to incongruities. The role of

strategic interaction that could make matters worse should also be mentioned. Students that link this discussion to interest-based models should be credited for this, likewise those who elaborate on how malignancy can be made worse with increasing asymmetry and cumulative cleavages should be credited.

3. Describe the main features of what Dryzek refers to as the discourse of Prometheanism.

Beskriv hovedtrekkene av det Dryzek kaller den Promotheanske diskursen

Beskriv hovudtrekka av det Dryzek kallar den Promotheanske diskursen

This is covered in Dryzek (2013) chapter 3. An acceptable answer should include that Prometheanism is a discourse who does not see limits to the current economic system, but rather sees the potential for perpetual growth, as human ingenuity is recognized as the only scarce resource. Thus, many environmental problems are not recognized as such, in particular not if they entail the scarcity of a resource. Some Prometheans, most notably Lomborg, recognize anthropogenic climate change and suggests technological fixes to this, but without these measures harming economic activity.

Few if any changes in lifestyles or economic systems should be undertaken, Prometheans are committed to economic growth. Good answers should point out that neither reformist nor radical changes to the existing socio-economic system applies particularly well to much Prometheanism, as the discourse simply sees very few environmental problems to solve and that the current liberal capitalist system should continue, arguably with an even freer market (never change a winning team!). This can be misunderstood as Prometheanism is by Dryzek placed in the same corner of discourses as the discourse of Limits and Survival (which is seen as prosaic and radical) – but these are attributes of LAS, not of Prometheanism which is a response to and heavy critique of LAS. Prometheanism sees no reasons for change to the existing system and therefore cannot be radical. Put differently, had there been no LAS or other environmental concerns about the existing liberal-capitalist system, there would arguably have been no Promethean discourse to defend and justify the established system either. Answers which hold that Prometheanism is prosaic and radical would not be punished for this, however, as this can be quite confusing from Dryzek's book, but those who argue well for how Prometheanism is a response to the LAS' attack on the economic growth paradigm and by this outline how Prometheanism see no need for structural change, should be given extra credit for this as this demonstrates maturity. Prometheans have full trust in the currently dominant free-market capitalist socio-economic system as it allows human ingenuity to flourish, and it is therefore prosaic – it does not see any reason for changing to a qualitatively different system. Good answers should also say briefly that Prometheanism must be seen as a response to rising environmental concerns in general, and survivalism in particular – the rise of Limits and Survival 'meant that Promethean discourse had to be articulated and defended, rather than just taken for granted' (Dryzek 2013:53). In other words, the ideology of the status quo had to be made explicit.

Students should also know that the basic entities of the discourse are: that nature only exists as brute matter to be utilized for human wellbeing; (and therefore) ecosystems are rarely acknowledged; markets and human ingenuity can overcome any shortages through the price mechanism and technological innovation;

Assumptions of the discourse are that: there is a hierarchy placing humans above everything else; that there is constant competition between humans in the market. Agents and motives of the discourse are all humans which are seen as motivated by their material self-interest.

Common metaphors are: mechanistic metaphors, trend

Extra credit should also be awarded to those that refer to economics as a discipline which has had substantial influence on the way the discourse is framed as the Promethean response to Survivalism was largely led - and thus framed – by economists.

Good answers will also say that the discourse have had quite some impact in that it fits hand in glove with the neo-liberal 'growth forever' paradigm, in particular in certain US presidencies (Reagan, Bush jr.) with a notable impact on US discussions on whether climate change is anthropogenic or not.

4. Describe the main features of what Dryzek refers to as the discourse of administrative rationalism.

Beskriv hovedtrekkene av det Dryzek kaller den administrativt-rasjonelle diskursen

Beskriv hovudtrekka av det Dryzek kaller den administrativt-rasjonelle diskursen

Administrative rationalism (hereafter AR) is covered in Dryzek (2013) chapter 4. Most students should know that AR is a problem-solving discourse alongside Economic rationalism and Democratic pragmatism. AR recognizes that environmental problems exist, and argues that the solution to these lies within the existing capitalist system. Thus, it is prosaic (the problems can be solved using existing measures) and reformist (holds that sufficient adjustments can be made within the status-quo framework of current industrial society).

Most students should also know that AR makes the case for experts regulating human processes seen as harmful to the environment, as environmental problems are seen as complex with the need for scientific knowledge, hence the needs for experts deciding. Moreover, the experts deciding and enforcing these regulations should be part of a classic Weberian merit-based bureaucracy free from partisan interests. The very mechanisms to regulate environmental problems are: regulatory policy instruments such as pollution control agencies, laws, pollution permits/concessions, fines, and technological standards; environmental impact assessments in any major project prior to start-up.

Decent answers should include that the basic entities of AR are experts and managers; liberal capitalism as status quo; the administrative state (read: non-partisan expert-based bureaucracies); not the public. Natural resources and their limits exist, and they must therefore be regulated, but only as they serve human needs (man is placed above nature). People are subordinate to the state, and experts and managers control the state (hierarchy). Students should also know the basic agents and their motives: experts, managers, and governments are seen as the custodians of the public interest. The lay man is not left with much agency. Key metaphors and rhetoric of the discourse: navigating and steering (through a rational bureaucracy); the administrative mind. Good answers should also say that AR's strength does not lie in its metaphors, but rather its track record in actual environmental policies.

Some students will also know that AR was the first approach at tackling environmental problems, and that it still has substantial influence. Strong answers will also say that the discourse has come into disrepute with the liberalization wave of the 1980s onwards in which state regulation is seen as something that hinders markets – and their individuals – to act freely. Moreover, increasingly complex environmental problems are hard to regulate in a top-down manner, in particular when environmental problems are displaced; when compliance is low; when learning/communication does not flow well in the bureaucracy.

5. How does the so-called Populist discourse (labelled by Adger et al.) explain environmental processes such as desertification and deforestation?

Hvordan forklarer den såkalte populistdiskursen (navngitt av Adger m.fl.) miljøendringer som forørkning og avskoging?

Korleis forklarer den såkalla populistdiskursen (namngitt av Adger m.fl.) miljøendringar som forørkning og avskoging?

This is covered in the article by Adger et al. (2001). This question is a bit tricky, but good answers should be able to say that this is a discourse which alike GEM takes the notion of environmental crises in the Global South for granted and is in general quite pessimistic – these crises are severe and will have serious socio-economic and political consequences in developing countries. Like the GEM it takes the processes of deforestation and desertification for granted. However, the populist discourse can be seen as partly a reaction to the Global Environmental Management discourse as it is critical to much of the vision of environmental problems in the South.

Colonial and neo-colonial exploitation is seen as marginalizing smallholders' and pastoralists' livelihoods which 'forces' them into causing land degradation and/or deforestation. Moreover, uneven terms of trade forces LDCs to over-exploit vulnerable areas. In terms of discourse, the most significant actors are capitalists and corporations, and even to some extent Northern consumers – seen as villains causing the environmental problems through rampant overuse of resources; locals seen as victims of historical processes of marginalization starting with colonization. In general, the populist discourse sees little positive from external involvement, instead advocating rights, self-determination and empowerment as solutions, and a 'hands-off' approach regarding Western interests. Very good answers will also say something about how this discourse has come from the margins into becoming quite influential in the later years.

Some might add that the populist discourse builds heavy on neo-Marxist/dependency theory and should be credited for this if they are able to tie it to the skepticism towards capitalism.

6. What are the most plausible ways that environmental change could affect migration in the future?

Hva er de mest plausible måtene miljøendringer kan påvirke migrasjon på i framtiden?

Kva er dei mest trulege måtene miljøendringar kan påverke migrasjon på i framtida?

This is covered in the article by Black et al. (2011). The lectures have had a focus on the particular effects of climate change, and it is therefore expected that the students will have most to say about these.

The students are at a minimum expected to at least some of the following expected push-factors of future environmental change:

- Rise in sea level causing coastal flooding etc., eventually rendering certain areas uninhabitable
- Change in natural hazard frequency and/or intensity in vulnerable areas (tropical cyclones, floods, wildfires)
- Reduced agricultural output due to changing rainfall regimes, extreme temperatures etc.
- Land degradation causing a gradual decline in livelihoods
- Degradation of marine and coastal ecosystems vital to the livelihoods of many people and also acting as barriers against storms and floods, rendering coastal communities more vulnerable to hazards

A decent answer should also describe some of the main indirect channels through which environmental change could affect migration:

- Students should be credited if they take vulnerability to environmental change as a starting point to understand indirect consequences. The students are expected to say at least something on both economic and political intermediary drivers of migration to have a good grade.
 - Even though simplified accounts tend to dominate the news media, environmental factors rarely affect migration directly, but rather through indirect mechanisms.
 - First, economic factors related to migration might be affected. A loss of or less reliable household income due to a drop in agricultural productivity and rural livelihoods may affect migration patterns. However, there might be a differential effect on the mobility ability (decreased as this is costly) and motive (increased with worsening local environmental conditions). The poorest are those most likely to be most affected as they are generally regarded as most vulnerable to environmental change.
 - Students should also mention the potential indirect effect of environmental change on migration through political factors. We should expect students to mention the potential – but disputed – effect of environmental change on violent conflict as this was a main part of one of the lectures. Strong students should also say something about the potential for policies addressing environmental change to affect migration patterns, such as building of dams for clean electricity, conservation policies etc. that relocate people.
 - Very good answers should also mention that there might be environmental pull-effects as certain areas might benefit from environmental change and hence become more attractive.

Students that explain how migration may be seen as adaptation to environmental change, and not as maladaptive and panic-driven, should be given extra credit for this.

Extra credit should be given to students who elaborate on how different contexts matter for the effect of environmental factors in affecting migration patterns. Very good answers will also discuss the fact that there are different forms of migration which have different causes: distress migration

(usually temporary, relocation close to origin and usually temporary). That people tend to be quite rational, in the broader sense (bounded rationality), and that this also goes for migration.

7. What are the main ways by which states ensure the security of oil supplies (security of supply)?

Hva er de viktigste måtene som stater sikrer seg oljeforsyninger på (forsyningssikkerhet)?

Kva er dei viktigaste måtane statar sikrar seg oljeforsyningar på (forsyningstryggleik)?

This question is mainly based on the article by Bielecki (2002), but also Fermann (2009) and Godzimirski (2009).

Most students should briefly discuss what is meant by security of supply and that it entails the uninterrupted and sufficient, but that prices are more flexible. Students that point out the difference between rich/industrialized countries where the focus is more on continuous supply versus poor/developing countries where price is more important, should be given extra credit for this. Most students should also be aware that what constitutes energy security depends on where you stand. Most students should also differentiate between producers and consumers of oil – the question is mainly relevant for the latter group of countries.

For an average grade, students should say that diversification of suppliers is a key strategy. Most should also mention that R&D on domestic energy sources (domestic petroleum; substitutes in electricity generation/diversification of the energy mix) and energy conservation are key strategies. Better answers should also discuss emergency stocks and how these: deter supplier stops and are useful if interruption in oil delivery occurs. Students that mention fuel switching/substitution; surge production; and political measures even including military occupation should be credited for this. The best students should also distinguish between short- and long-term strategies. Those who elaborate on how the joint interests of producers and buyers affect the oil market from the OPEC crisis via the establishment of the IEA and their subsequent quite cooperative role should be given credit for this. This also goes for those who in more general terms write about how ensuring working markets (ensuring efficient information flow; harmonize legislation; hindering cartelization; de-securitization) or more recently bilateral deals such as the China-Iran deal should be generously awarded for this.

Very good answers should elaborate on how the US and Europe have different approaches in that the former has used force to get access to and influence in strategic areas (e.g. Persia/Iran in 1956; Iraq 2003) whereas Europe largely has chosen a much more cooperative approach. Students that discuss how the former's strategy has weakened the latter approach should be credited extra for this.

8. Explain why China, despite greater installed wind power capacity than the US, still generates less electricity from wind power than the US.

Forklar hvorfor Kina, til tross for større installert vindkraftkapasitet enn USA, likevel genererer mindre elektrisitet fra vindkraft enn USA.

Forklar kvifor Kina, trass i større installert vindkraftkapasitet enn USA, likevel genererer mindre elektrisitet frå vindkraft enn USA.

There are obviously a number of different ways to answer this question. Here are the points that we brought up in class and that you'll find on the syllabus (several of these are related, so there's quite a bit of overlap between a number of the points):

- 1) Technological sophistication, maintenance and reliability
 - a. US wind turbines are technologically more sophisticated (higher efficiency), thus generating more electricity from the same capacity
 - b. US wind turbines are more reliable (higher build quality), are better maintained and have less down-time than Chinese turbines
 - c. Lack of Chinese expertise both in manufacturing and in maintenance
- 2) Incentives
 - a. The command-and-control nature of the Chinese economy has put more emphasis on installing capacity than actually generating electricity (which is typically more important in more market-based economies)
 - b. The Chinese drive for wind power was originally more about industrial policy than energy policy (thus emphasizing installations (building an industry) over generation (energy policy)).
- 3) Curtailment
 - a. Wind power is typically produced in windy and unpopulated areas, whereas the electricity is needed in in faraway populated areas (typically on the coast). Because grid-lines in scarcely populated areas are even weaker than in the rest of China, there is often a lack of grid capacity to carry all the energy that is being generated from faraway places to population centers. Maybe as much as 20% of the electricity from wind power is wasted this way. In the US, the similar figure is approximately zero.
- 4) Off-grid capacity
 - a. Incentives for installation over generation has led to the regions not always being very concerned with actually connecting the wind power to the grid. At times, unconnected capacity has been as much as 15-20GW. In the US, the similar figure is approximately zero.
- 5) Vested interests
 - a. Grid companies are reluctant to connect wind power to the grid even if obliged to do so by the law, resulting in off-grid capacity
 - b. Because the regions for practical purposes often have considerable autonomy, they often prioritize the energy that is cheapest and where they have the strongest personal connections. This very often means that coal gets first priority, and that wind power, even if it is connected to the grid, will not be utilized if coal can satisfy all the power needs of the region (the electricity demand varies from day to day, depending among other things on the temperature – thus on some days, coal might be able to provide all the power a community needs, whereas on other days, there is need for more electric power, such as wind power).

Thus, in many ways, we are left with two main answers: US wind turbines are more efficient, and the Chinese waste a lot of their installed capacity.