The Environment

https://www.e-ir.info/2017/01/19/the-environment/

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Today, our planet carries over seven billion people. Yet its capacity to provide for each one of these individuals is threatened by population growth, climate change, deforestation, collapse of fisheries, desertification, air pollution and scarcity of fresh water. The full extent of our shared global environmental problems goes far beyond the well-publicised challenge of global climate change (or global warming). In fact, one of the elements often forgotten is the complicated relationship between human beings and their environment. In the early years of the conversation around environmental protection, some argued that the planet's resources were there for our collective consumption. However, there are limits to growth and this raises a range of important issues for international relations. Our population quadrupled between 1900 and 2000. This growth, coupled with abrupt climate change events and further compounded by rapid industrialisation and fast urban expansion, have combined into a perfect storm of negative environmental processes that put pressure on the capacity of Planet Earth to sustain life. As students of IR, we ought to recognise that the environment is one of the areas where much work remains to be done, particularly because cooperative approaches to environmental protection have had a very mixed record despite the grave implications of failure.

The relationship between international relations and environmental problems

It is often hard to assess whether international cooperation efforts have had any real effect on society's wellbeing, the quality of our environment, or even the construction of long-term relationships between states. One form of evaluation takes place through the study of environmentally focused 'megaconferences'. These large-scale events bring together representatives of national governments, intergovernmental secretariats, non-governmental organisations, academics and industry actors to engage in conversations about the state of the environment. They usually focus on a particular issue at hand. What makes these megaconferences interesting is that their goal is to engage in productive collaborative efforts to reach agreement and consensus on specific strategies to protect the environment and solve global challenges.

Historically, the two environmental issues that have gained the most attention have been climate change and biodiversity. Both of these issues came up at the Earth Summit in Rio de Janeiro in 1992 – formally called the United Nations Conference on Environment and Development. Nevertheless, most scholars will recall the 1972 United Nations Stockholm Conference on the Human Environment as the first large-scale environmentally focused megaconference. The Stockholm Conference was also the starting point for the first global coordination mechanism for environmental protection, the United Nations Environment Programme (UNEP). This conference was also the first one where participants explicitly linked human health with environmental and ecosystem health in their discourses.

The second milestone in global environmental governance is the publication of the Brundtland Report in 1987. This report outlined the need for a new model for development that brought into play the notion that we cannot simply use (and misuse) the resources we have at our disposal. The new model, coined sustainable development, became an enduring part of the global conversation about environmental protection. The Brundtland Report defines sustainable development as having three main components: economic, environmental and social – an idea that was then put

forward for implementation at the Earth Summit.

The third milestone was the 1992 Earth Summit. A major outcome of this meeting was the recognition of two of the most important environmental issues – the loss of biodiversity and rapid climatic change – and the need for intergovernmental secretariats and agreements to respond to these twin challenges. The bulk of the world's states, 161, signed a declaration on the need for a model of global development that enabled future generations to live within their means but also facilitated current generations' livelihoods. The fact that so many states reached an agreement on the concept of sustainable development, and the need to operationalise it, became the key contribution of the Earth Summit. Activist involvement became the norm in international conferences on environmental issues starting with the Rio Summit. Non-governmental organisations were considered part of the negotiations from the very beginning and over 2,000 non-governmental representatives attended.

The fourth milestone was the 2002 Johannesburg World Summit on Sustainable Development. The goal was to establish collaborative intergovernmental, cross-disciplinary and cross-sectoral partnerships. In theory, this would strengthen the way in which environmental activists interact and partner with national governments. Different types of partnerships were elucidated and non-state actors were considered from the design stage up to implementation. However, following the summit there was a widespread perception that there had been very little progress on the implementation side, leading to a feeling of megaconference fatigue. To remedy this, the 2012 UN Conference on Sustainable Development (also known as Rio+20) created mechanisms for follow-up of commitments to sustainable development. It also highlighted the relevance of specific targets for development and the need for transition towards broader-reaching sustainable development goals. Moreover, the outcome document of this conference defines specific regional initiatives towards the implementation of sustainable development.

The 2015 Paris Agreement represented consensus among a number of countries that something needed to be done to maintain the level of global warming below two degrees centigrade. The fact that an agreement was reached was groundbreaking for the global climate negotiations community. Prior negotiations were marked by disagreements and lack of consensus on a strategy to compel nations to reach internationally agreed targets in their carbon emissions. This is important as carbon dioxide, released primarily by burning fossil fuels such as oil, natural gas and coal for energy, is the main cause of global warming. Nevertheless, Paris showed that many countries were able to agree on specific goals, targets and policies needed to combat rapid and impactful global environmental change. The process it established is yet to be fully realised, but in the years to come the expectation is that states will comply.

Climate change isn't the only ecological issue facing our planet. But its role in catalysing global action to protect the environment cannot be overstated. One of the most neglected issues is water. While the earth is two-thirds covered by water, the proportion that is fresh (drinkable and useable for agriculture) is sometimes highly contested by neighbouring states and in short supply for growing populations. When added to the effects of climate change, access to water is an issue of real concern. While many other challenges remain in the areas of climate and environment, it is likely that a framework for global water governance will be a major issue on the agenda in the near future.

Common pool resource theory

With a brief history of megaconferences now complete, we can move on to discussing the substance of the debates on climate and the environment. The notion of public goods comes from the original definition of a good that is non-excludable and non-rivalrous. Think of it as something that anyone can access at any point in time without making it any less available for anyone else to consume. The best example of a public good is knowledge; in this case we can use the example of information that we find on the internet. All knowledge, once freed and put online for public consumption, is non-excludable and non-rivalrous in consumption. You cannot exclude anyone from consuming knowledge and learning, unless they do not have access to the means for knowledge transmission, which may be the case in some countries where specific websites are banned. You also experience non-rivalry in consumption. Air is another example of a public good. Under normal circumstances nobody can stop you from breathing air into your lungs, and the fact that you breathe air does not stop someone else from having the opportunity to enjoy it. This is the definition of a perfect public good: one that is always non-rivalrous in consumption and non-excludable in access.

Common pool resource theory derives from Garrett Hardin (1968), who said that if left to our own devices we would exhaust all the resources available for our consumption. Imagine if you were a shrimp fisher. You need to fish and sell your catch to sustain your family. Let's say that there are 10,000 shrimp in the small catchment that you fish in. But there are 99 other fishers in the sea at the same time as you. If everyone cooperated and consumed only $1/100^{th}$ of the total available shrimp, each would have 100 shrimp to sell. If at any point any fisher catches more than $1/100^{th}$, there will be other fishers negatively affected. Hardin used a similar metaphor to make the point that if resource consumers behave selfishly, they would exhaust the resources they were supposed to preserve. Hardin called this the tragedy of the commons. Closed bodies of water, plots of land and large-scale areas of forests are all common pool resources. They are rivalrous in consumption, but non-excludable.

One can summarise the theory of common pool resources by placing goods in four specific categories: private goods, common goods, club goods and public goods. This categorisation framework has two dimensions. The first dimension is excludability. If you can prevent someone from accessing a good, that good is excludable. The second dimension is rivalry in consumption. Goods that are depleted are rivalrous in consumption. If I consume an apple, you cannot consume that same apple because I have already eaten it. Private goods, such as food, clothing and other material objects, can be purchased and acquired because they are tradable. As a result, these goods are both rivalrous in consumption (if I buy a car, nobody else can buy that exact same car) and excludable (you cannot buy a car unless you have the money to purchase it).

Goods that are non-rivalrous in consumption and non-excludable are called public goods. These are the things that everybody can enjoy. Consuming them does not reduce the possibility of someone else having the same opportunity of consumption. Air is a public good. Everybody can breathe air without worrying that at some point they will not be able to breathe simply because somebody else is also breathing. Finally, common goods, which are also called common pool resources, are those goods that are non-excludable but rivalrous in consumption. Fish in a fishery, trees in a forest, water in an aquifer or a lake. All these natural resources are common goods and, therefore, common pool resources. What makes common pool resources so interesting is that the theory, developed by Elinor Ostrom (1990), argues that despite the fact that humans are supposed to be selfish, faced with conditions of scarcity we are able to self-organise and govern our common pool resources (our 'commons') in a sustainable manner. One of the reasons why Ostrom's work had such an impact was because her theory of cooperative approaches to resources governance contradicted Hardin's tragedy of the commons model. Instead of being so selfish that they would want to fish all the shrimp (for example), Ostrom found that fishers would build a shared agreement to reduce their own consumption for the wellbeing of the collective. Obviously, this is an example on a relatively small scale. What remains to be seen is whether we can achieve global cooperation to protect our global commons. One way to think about this is through the lenses of global public goods, as discussed below.

The global environment as a global commons

Perhaps you would agree that a shared environment would be a resource community and individuals would work collaboratively to protect. But there is another view, which is that responsibility for care of the environment rests with governments. One way of thinking about this is to use the concept of the global environment as a global commons. After all, global environmental problems are by their very nature global. However, international cooperation is hard to achieve. As the example of the US shows, there are powerful countries that will avoid cooperation for various reasons. For many years the US refused to sign the international agreement on climate change, the Kyoto Protocol (the forerunner to the 2015 Paris agreement), thus blocking many international efforts to reduce global carbon emissions. There are several other examples that can be cited, but suffice it to say that a powerful country's refusal to collaborate to solve a global issue is concerning. It is hard to make countries commit to specific conservation goals (in forest policy) or emission-reduction targets (in climate policy) or standards for pollution in rivers (in water policy) because each nation has its own national development objectives that may conflict with other countries' goals, thus making it hard to find common ground for collaboration.

Given that cross-national collaboration is so difficult, we create international environmental agreements that build a framework to help these countries talk to each other and agree on specific targets for environmental protection. Some of the most popular international environmental agreements are specific to the area of climate change (like the

Kyoto Protocol), but other, less well-known examples – such as the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters – are equally relevant. One of the biggest problems for human beings acting at the individual level on environmental issues is the lack of information. Countries that are signatories to the Aarhus Convention make an agreement to share data that will enable citizens of a country to understand the potential risks that they face with regard to chemicals' processing and emissions. This information also helps environmental activists bring industries to account and ensure that they reduce their polluting emissions.

Global rights and domestic environmental politics and policy

The right to a healthy environment and the global commons are ideas that suggest that it is our shared duty to take care of our collective environment because everyone has a right to enjoy their environment and use some of its resources for their survival. It is possible to link human rights with global environmental regulation through the implementation of the international norm of a right to a healthy environment. This is a new avenue of research for scholars of international relations, and it is founded on the basis of a popular idea, or norm, that every individual on the planet has a right to a healthy environment. Despite states having different abilities and varying degrees of technical expertise to implement the norm, the number of countries with constitutional environmental rights has expanded radically (Gellers 2015). Eighty states now have such legislation in their constitutions, but we are still quite a long way away from having this norm as a fundamental human right.

There are also, of course, many other concerns that divert government focus from environmental issues. Increasing regulation on certain heavy-polluting industries, such as steel and coal, can have a negative effect on jobs. Setting 'green' taxes, either directly or through such things as energy tariffs, can also cause a burden on taxpayers and businesses. Thus, there has sometimes been a tendency to see environmental legislation as damaging to economic growth and prosperity. By extension it can also be unpopular in domestic settings, making legislation difficult to pass – or even propose in some cases. It is consequently encouraging to see so much domestic legislation gaining traction. The number of countries where the human right to a healthy environment is enacted constitutionally may help build collaborative transnational networks to protect the global commons. The starting point would be a shared understanding of the need to reduce human impact on national and global ecosystems. Sharing a paradigm that pushes the human right to a healthy environment may also induce national governments to actively seek participation in international environmental agreements. Nevertheless, it is important to find a way to coordinate these agreements, and this challenge raises the question of whether we need a global environmental organisation to make sure states comply.

The best situation for Planet Earth's citizens are solutions that are made not just in each state, but internationally. And, most importantly, complied with. IR is often concerned with the phenomenon of states cheating on, or withdrawing from, agreements. Perhaps nowhere is compliance more important for our long-term prosperity and security than in the areas of climate and environment.

Do we need a global environmental organisation?

Who is in charge of protecting our global environment? To answer this question, you may recall from previous sections that there is now a consensus regarding one specific tool that may help achieve the lofty goal of providing global public goods: international environmental agreements. These agreements, often produced at megaconferences, help protect our global commons by requiring nations to acknowledge and respect the human right to a healthy environment. However, the next big question is an equally important one – who is in charge of implementing these international environmental accords? Some have argued that in order to force countries to cooperate in the protection of our shared environment, we need a global intergovernmental secretariat. This would take the form of a far-reaching international institution whose sole purpose would be coordinating efforts to improve environmental quality.

For many years there was a collective belief that the United Nations Environment Programme had been tasked with the challenge of protecting our global network of ecosystems and shared resources. This may have been true in the

early stages of its creation following the 1972 Stockholm Conference, but protecting our global environment has proved to be an impossible task for a small agency with a limited budget and no power to compel states to act in a particular way. The reality is that even though there is increasing interest in strengthening international cooperation across countries to protect the global environment, it is the number of institutions, agencies and programmes dealing with environmental issues at other levels that grows in size and complexity. Regrettably, the frequent mention of abrupt climate change events, increasing deforestation and growing levels of pollution in oceans, rivers and lakes makes it clear that we have yet to solve these complex global environmental problems. And while there is still no agreement as to whether the United Nations Environment Programme is the agency that should be tasked with protecting the global environment or whether we should create a new global environmental organisation (see Biermann 2000), we must ensure that we focus on collective solutions at the international level rather than state, regional or local level – we all share the earth.

To strike an optimistic note, we can find at least one instance of global environmental cooperation, the Paris Agreement of 2015. This was led by the chair of the United Nations Framework Convention on Climate Change Secretariat, Christiana Figueres, and is an example of what can be achieved in global cooperation for environmental protection by just one intergovernmental secretariat. The fact that the majority of the world's states were able to reach agreement on the specific tactics and strategies that every state needs to undertake in order to reach the stated goal of holding increases in the earth's temperature below two degrees centigrade is to be lauded. Even more important is that the agreement has secured the support of the world's two biggest state polluters, the US and China. The Secretariat is probably not the global environmental organisation we need right now, but it played a pivotal role at a crucial time.

The debate around whether or not we should have a global environmental organisation may never be settled. However, if we were to establish such a thing it would need full and complete cooperation from all states to stand any chance of success. The example of Paris, which built on the example of earlier megaconferences and movements, suggests that international collaboration to protect our environment is on the rise. This offers hope for the future despite rising tensions in some nations over the nature of climate agreements.

Conclusion

It is clear that we still have a lot of work to do with regard to our shared understanding of what constitutes strong, robust, effective and efficient global environmental governance. We need to better integrate regional and transnational initiatives with domestic policy strategies to tackle environmental problems. This means creating the conditions for a model of governing the environment that is flexible and cuts across different levels, from the local to the global. It is also clear that frameworks based on ideas of global public goods and global commons are very useful. However, at the same time they are daunting, since collective action on any scale is clearly an enormous challenge. Trying to find mechanisms, models and strategies to ensure cooperation across different levels of government, across a broad variety of issue areas and across a range of political and policy actors is a problematic and difficult process, as experience has shown. Today, the world's states have been able to find common ground in relation to certain goals for environmental protection, including the flagpole issues of global warming and climate change. The hope is that this trend continues so we can continue to live healthily and happily on Planet Earth.

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