



# Study Guide COP27



Topic A: Tackling the environmental impacts  
of meat production and fishing

Topic B: Energy dependency and green  
energy development

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# Word of Welcome

Honorable delegates,

It is with the utmost pleasure that we, Paul, Jonas and Greetje, welcome you to the SGMUN Conference of 2022 in the committee of the 27th Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC COP27). Even though the COVID-19 health crisis has forced conferences to be held online, we have the opportunity to finally get back together and meet in person in St. Gallen this December. With that being said, we are determined to make this a truly memorable experience by having challenging debates, learning, making mistakes, and most importantly, having fun together!

Due to the nature of our committee, being both centered around climate change and aimed at beginners, we decided to choose two topics that are not only currently very important, but also interesting and have plenty of information readily available. Concretely, this committee is aimed to explore and discuss a situation that is currently and constantly affecting us in more ways than we know. Topic A covers tackling the environmental impacts of meat production and fishing. Topic B is about Energy dependency and green energy development. Both of these topics give you a chance to discuss current issues, dive into the world of diplomacy, and forge your first alliances. With both topics we expect creative solutions, substantial debate, and meaningful proposals.

We will be there to guide you throughout the conference and answer any questions that might arise concerning the debate itself, the RoPs, the topics, or the position paper, and the composition of resolutions. We are delighted that you have chosen our committee and hope you will have an amazing and unique experience at the UNFCCC COP27.

Please do not hesitate to contact us -even before the conference- for further guidance or if you have any doubts. We will be very happy to hear from you and answer your questions!

We look forward to meeting you all,  
Yours,

Jonas,  
Paul & Greetje

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# About the Committee

The United Nations Framework Convention on Climate Change (UNFCCC) is a Climate change oriented Convention that started shaping itself in 1992 as an international treaty. It acted as a framework for important international cooperation to fight climate change and aimed to drastically halt the rising global temperatures and thus limit the growing impact of climate change around the world.<sup>1</sup>

Even though this treaty came about in 1992, it officially took effect in 1994, with an important goal: to bind the members to act in support of human safety -and the most important aspect- even if they had to face scientific uncertainty.<sup>2</sup>

In 1992 the Rio Earth Summit took place, and three Conventions (referred to as the “Rio Conventions”) were open for signature. The three Rio Conventions are: (1) the UNFCCC, (2) the UN Convention of Biological Diversity and (3) the UN Convention to Combat Desertification.<sup>3</sup>

In 1995 countries started negotiations to strengthen the global response to climate change. After these negotiations in 1997, countries adopted the Kyoto Protocol which legally binded parties to drastically reduce their emissions and achieve their reduction targets.<sup>4</sup>

Currently the UNFCCC has 197 parties, which makes it one of the most global UN Conventions.<sup>5</sup>

In regards to climate change, the last step taken by the UN member states was the 2015 Paris Agreement, which set a new direction in the global efforts to combat climate change. This Agreement seeks to accelerate and extend both investments and actions necessary for a sustainable and low carbon -near- future. The UNFCCC encourages all institutions involved in international climate change related negotiations, especially the Conference of the Parties (COP)<sup>6</sup>. In November 2022, the Government of the Arab Republic of Egypt will host the 27th Conference of the Parties of the UNFCCC (COP 27), with a view to building on previous successes and paving the way for future ambition to effectively tackle the global challenge of climate change. The country would work to make the conference „a radical turning point in international climate efforts in coordination with all parties, for the benefit of Africa and the entire world“. The meeting comprises the twenty-seventh session of the Conference of the Parties (COP 27), the seventeenth session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, and the fourth session of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement.

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<sup>1</sup> UNFCCC (n.d.) What is the United Nations Framework Convention on Climate Change?

<sup>2</sup> Idem UNFCCC (n.d.) What is the United Nations Framework Convention on Climate Change?

<sup>3</sup> Idem UNFCCC (n.d.) What is the United Nations Framework Convention on Climate Change?

<sup>4</sup> Idem UNFCCC (n.d.) What is the United Nations Framework Convention on Climate Change?

<sup>5</sup> Idem UNFCCC (n.d.) What is the United Nations Framework Convention on Climate Change?

<sup>6</sup> UNFCCC (n.d.) Conference of the Parties

# Understanding Climate Change

## What is Climate Change?

According to the UNFCCC climate change is “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods”<sup>7</sup>. To explain it easier, we know that climate is the average weather in a place for over many years, thus, climate change would be the shift in those average conditions<sup>8</sup>.

## What has the International Community done so far?

Since several years ago the international community has witnessed the rising atmospheric concentrations of greenhouse gas, the enhancement of the greenhouse effect and generally the growing warming of the Earth’s atmosphere and surface<sup>9</sup>. The impact of this situation has been growing as time passes<sup>10</sup>, affecting both natural ecosystems and humankind<sup>11</sup>. Given the situation, the international community has taken several measures such as drafting, negotiating and abiding by international treaties and UN resolutions, creating different international organizations and even changing internal policies in order to lessen the global impact. Some measures worth highlighting are:

### **Treaties, Conventions and Protocols**

#### - Paris Agreement

The Paris Agreement is an international treaty on climate change. Its goal is to limit global warming to below 2 degrees Celsius and for countries to achieve this temperature goal, they must limit their greenhouse gas emissions as soon as possible.

The importance of this treaty, according to the UNFCCC, is the fact that it is the first time that a binding agreement brings all countries into a common cause to tackle climate change and adapt to its effects<sup>12</sup>.

#### - Kyoto Protocol

This Protocol operationalizes the UNFCCC by committing industrialized countries and economies in transition to limit and diminish greenhouse gas emissions. The Protocol places a heavier burden on developed nations under the principle of “common but differentiated responsibilities”. The Kyoto Protocol only asks those countries to take on policies and measures regarding mitigation and lastly to report periodically<sup>13</sup>.

#### - The Montreal Protocol

The Montreal Protocol on Substances that Deplete the Ozone Layer is the landmark multilateral environmental agreement that regulates the production and consumption of nearly 100 man-made chemicals referred to as ozone depleting substances (ODS). When released to the atmosphere, those chemicals damage the stratospheric ozone layer, Earth’s protective shield that protects humans and the environment from harmful levels of ultraviolet radiation from the sun. Adopted on 16 September 1987, the Protocol is to date the only UN treaty ever that has been ratified every country on Earth - all 198 UN Member State<sup>14</sup>.

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<sup>7</sup> United Nations Convention on Climate Change (1992)

<sup>8</sup> BBC (2021)

<sup>9</sup> Idem United Nations Convention on Climate Change (1992)

<sup>10</sup> Intergovernmental Panel on Climate Change (2021)

<sup>11</sup> Idem United Nations Convention on Climate Change (1992)

<sup>12</sup> UNFCCC: “The Paris Agreement” (n.d.)

<sup>13</sup> UNFCCC: The Kyoto Protocol (n.d.)

<sup>14</sup> UNEP: The Montreal Protocol

## - UNFCCC

The UNFCCC is the UN entity in charge of supporting the global response to the threat of global change. This Convention is the parent treaty of the 2015 Paris Agreement and the 1997 Kyoto Protocol, and the ultimate objective of these 3 agreements is to stabilize greenhouse gas concentrations in the atmosphere and to manage this between a time frame that allows ecosystems to adapt naturally and that enables sustainable development<sup>15</sup>.

## UN Resolutions

Even though there are many UN Resolutions regarding Climate Change, we will mention only four:

UN General Assembly, Protection of global climate for present and future generations of mankind : resolution / adopted by the General Assembly, 19 December 1991, A/RES/46/169.

UN General Assembly, Possible Adverse Effects of Sea-Level Rise on Islands and Coastal Areas, Particularly Low-Lying Coastal Areas : resolution / adopted by the General Assembly, 22 December 1989, A/RES/44/206.

UN General Assembly, Implementation of the Plan of Action to Combat Desertification: resolution / adopted by the General Assembly, 19 December 1989, A/RES/44/172A

UN General Assembly, United Nations Conference on Environment and Development: resolution / adopted by the General Assembly, 22 December 1989, A/RES/44/228

## Organizations

### - World Meteorological Organization (WMO)

The WMO is a specialized UN agency that provides the framework for international cooperation for the development of meteorology and operational hydrology<sup>16</sup>. It is clear from the rules of the WTO and the UN Framework Convention on Climate Change (UNFCCC) that both regimes do not operate in isolation. For instance, Article 3.5 of the UNFCCC and Article 2.3 of the Kyoto Protocol provide that measures taken to combat climate change should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade and should be implemented so as to minimize adverse effects, including on international trade, and social, environmental and economic impacts on other Parties.<sup>17</sup>

### - United Nations Environment Program (UNEP)

The UNEP is the global authority that sets the environment related agenda and encourages the consistent application of the environmental dimension of sustainable development<sup>18</sup>.

### - Intergovernmental Panel on Climate Change (IPCC)

The IPCC is a panel that depends directly on the UNFCCC. It was set up by the WMO and the UNEP in order to provide an objective source of scientific information concerning climate change<sup>19</sup>.

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<sup>15</sup> UNFCCC: About the Secretariat (n.d.)

<sup>16</sup> WMO (n.d.)

<sup>17</sup> WTO: Activities of the WTO and the challenge of climate change

<sup>18</sup> UNEP (n.d.)

<sup>19</sup> IPCC (2021) About the IPCC

- Global Green Growth Institute

It is an intergovernmental international development organization that strives to promote green growth<sup>20</sup>. The Global Green Growth Institute (GGGI) and the United Nations Framework Convention on Climate Change (UNFCCC) on 8 June signed a Memorandum of Understanding (MoU) at the United Nations Climate Change Conference in Bonn, Germany. The two organizations will work together on activities aimed at addressing green growth issues in developing countries, by fostering climate resilient and low-emission development that will achieve stabilization of greenhouse gas (GHG) concentration in the atmosphere<sup>21</sup>.

## Conferences

- UN Climate Change Conferences also known as Conference of the Parties

These are a series of yearly conferences that are hosted in different countries around the world in order to discuss pressing matters in regards to climate change. Note: this year's Climate Change Conference or COP 27 will be held in November in Sharm El-Sheikh, Egypt<sup>22</sup>. On climate, the "Conference of the Parties" (COP), is the supreme decision-making body of the UN Framework Convention on Climate Change (UNFCCC). All countries that are Parties to the Convention are represented at the COP, at which they review the implementation of the Convention and any other legal instruments that the COP adopts. They take decisions to promote the effective implementation of the Convention, including institutional and administrative arrangements. The COP meets every year, unless the Parties decide otherwise.<sup>23</sup>

- Paris agreement

The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels<sup>24</sup>.

## What Consequences Does it Have on our Planet? And on Ourselves?

It is of utmost importance that the consequences for our planet and ourselves go hand in hand and can never be looked at separately. Whatever happens on our planet will -and does- have a direct consequence on the people living in it.

Some consequences are:

- Food insecurity and Declining agricultural production

The U.S Environmental Protection Agency (EPA) stresses the fact that agriculture -and other sectors such as fisheries- are highly dependent on climate. This means that if there is an increase in temperature, crops can stop their growth, which can pose a challenge to food security<sup>25</sup>.

Even more with changes and severity in the drought season not only are crops at risk, but the disruption of that entire ecosystem is a -certain- possibility. This means that higher temperatures make it more difficult for the agricultural production sector to grow crops, produce a sufficient amount of crops and to produce high quality crops<sup>26</sup>.

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<sup>20</sup> Global Green Growth Institute (n.d.)

<sup>21</sup> UN Partners with Global Green Growth Institute on Climate Action

<sup>22</sup> Egypt COP 27 (2022)

<sup>23</sup> UNEP at the CClimate COP

<sup>24</sup> UNFCCC: The Paris Climate Agreement

<sup>25</sup> US EPA (2017)

<sup>26</sup> Idem US EPA (2017)



#### - Variable Rain Patterns and At-Risk Water Access

This point is clearly related with the first one. When unexpected changes regarding the drought season occur, the water cycle gets affected: more water evaporation and condensation will mean an increase in rainfall patterns<sup>27</sup>. This situation can cause extreme precipitation which decreases the food production in especially poor regions and affects the supply of fresh water. This will only lead to water stress and increased competition -and/or conflict- for water<sup>28</sup>.

#### - Natural Disasters

Related to the two consequences previously explained, extreme droughts and intense storms are clear consequences of droughts and changing rain patterns. Also, with more heat in the atmosphere and warmer ocean surface tropical storms with increased winds are a plausible consequence. Lastly, the rising sea levels expose locations not previously affected by sea power and erosive forces of currents<sup>29</sup>.

As the UN Secretary General, Antonio Guterres, said in the UN Headquarters in September 2018 “if we do not change course [...] we risk missing the point where we can avoid runaway climate change, with disastrous consequences for people and all the natural systems that sustain us”<sup>30</sup>. The last consequence we will highlight is the:

#### - Runaway Climate Change

Even though this is not a scientifically recognized term, it is believed to be the greatest danger of global warming. Runaway climate change is a theory that stresses that circumstances might change violently if a -relatively- small warming of the earth upsets the normal checks and balances that keep climate in equilibrium<sup>31</sup>. Rather than “runaway”, scientists prefer the term “tipping point”, and in regards to this fact climate science has made it clear that reaching that mentioned tipping point is a much more immediate threat than previously thought.

## Going to Specifics: Climate change in...

### **...Meat production and Fishing**

That meat production and overfishing has an impact on our climate probably won't surprise you. The amount of the impact might though. According to reports from the UN the meat industry alone is responsible for nearly 15% of the world's greenhouse gas emissions and overfishing has brought several species to near extinction. Furthermore, research shows us that it is not easy to bring those species back to a healthy population. This means that it is already past the time to do something!

The UNFCCC provides a strong forum for researchers, NGOs and countries to fight for their beliefs. The COP27 is the place to change the world, whether that is for the better or not, that depends on each country's position. This topic will delve deeper on the importance of food production, refugees, internally displaced people and their link to climate change. Should you only rely on technological advancements? Is their animo for a binding resolution on meat consumption and/or overfishing? These are all questions you will find the answer to by defending your individual country on an international scale.

Is climate change real? Is it important? Is it important enough to fight for, even though it might have an enormous impact on your countries financial resources? Make sure to always argue from the perspective of your country. This will certainly be difficult, especially if you have a different stance on the matter. Shows us how good of a representative you can be and try to convince the other countries to follow you.

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<sup>27</sup> USGS (2021)

<sup>28</sup> UNICEF (2021)

<sup>29</sup> Idem USGS (2021)

<sup>30</sup> UN (2018)

<sup>31</sup> The Guardian (2006)



### **...Green Energy**

In the words of former UN Secretary-General Ban Ki-Moon, “energy is the golden thread that connects economic growth, increased social equity, and an environment that allows the world to thrive.”<sup>32</sup>.

Indeed the importance of all kinds of energy in our daily lives must not be understated. With the effects of climate change becoming more noticeable every year, the clock is well and truly ticking, and we need to rethink how we power our lives if we are to work against a climate catastrophe.

In this topic, we will try to find a way for the world to make some real difference, change its ways, and move towards a more sustainable future. You will come to learn of the mainly varied issues which affect different regions internationally. We hope to tackle dependencies on non-renewable energy sources and make sure that no one is left behind. We will need innovative solutions to help those nations in need and some good old diplomatic talent to reach agreements with real tangible results.

The topic is broad, there are many issues that can be focussed on. It will be up to you to make sure your country's voice is heard. The failure to make significant changes towards more sustainable energy resources will mean the failure to stop the most catastrophic effects of climate change.

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<sup>32</sup> UN (2013). Keynote address at the Sustainable Energy for All Ministerial Panel, Abu Dhabi International Renewable Energy Conference

# TOPIC A: Tackling the environmental impact of meat production and overfishing

## The environmental impacts of meat production:

It's becoming more and more clear that the world will not meet its climate goals without major changes to food production and consumption<sup>33</sup>. Food related greenhouse gas emissions should be reduced considerably if the world wants to keep global warming to a max of 2 degrees Celsius, the goal of the Paris Agreement<sup>34</sup>. Even if fossil fuel emissions were eliminated immediately, emissions from the global food system alone would make it impossible to reach the target of 1.5 degrees Celsius. Even the proposed 2 degrees Celsius limit would be hard to reach<sup>35</sup>.

One of the processes contributing to major greenhouse gas emissions during production is meat production<sup>36</sup>. To combat climate change, it is therefore absolutely necessary to reduce the environmental impact of meat production. This is not solely because of the production of feed, but also because of enteric fermentation from feed digestion by animals, manure handling and energy use in animal houses<sup>37</sup>. Feed production causes greenhouse gas emissions due to energy use in field operations, feed processing and transport, manufacturing of mineral fertilizers, and soil emissions. Application of nitrogen fertilizers, crop residues and animal manure increases nitrous oxide emissions from the processes of nitrification and denitrification<sup>38</sup>.

To combat climate change, it is absolutely necessary to reduce the environmental impact of meat production. There are several ways to do this. First of all, a major source of food related emissions is beef production. The total combined exhaust of greenhouse gas emissions from beef production is a staggering 3 billion tonnes of carbon dioxide in 2010<sup>39</sup>. This puts it on the same level as the total annual emissions in India, the world's third largest greenhouse gas emitter. Furthermore, each year, a single cow can belch 220 pounds of methane. Methane is a gas that is 28 times more potent in warming the atmosphere than carbon dioxide<sup>40</sup>.

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<sup>33</sup> World resources institute (2022)

<sup>34</sup> Clark, Michael & Domingo, Nina & Colgan, Kimberly & Thakrar, Sumil & Tilman, David & Lynch, John & Azevedo, Inês & Hill, Jason. (2020). Global food system emissions could preclude achieving the 1.5° and 2°C climate change targets. *Science*. 370. 705-708. 10.1126/science.aba7357

<sup>35</sup> Domingo, Nina & Colgan, Kimberly & Thakrar, Sumil & Tilman, David & Lynch, John & Azevedo, Inês & Hill, Jason. (2020). Global food system emissions could preclude achieving the 1.5° and 2°C climate change targets. *Science*. 370. 705-708. 10.1126/science.aba7357.

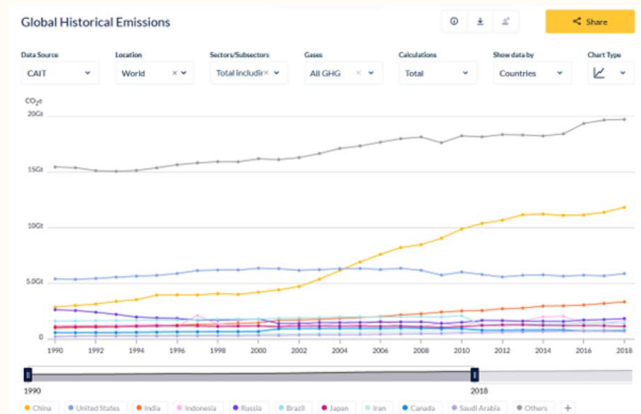
<sup>36</sup> World resources institute (2022), 6-pressing-questions-about-beef-and-climate-change-answered.

<sup>37</sup> Steinfeld, H., Gerber, P., Wassenaar, T., Castel, V., Rosales, M., de Haan, C., 2006. *Livestock's Long Shadow*. Environmental Issues and Options. FAO, Rome, Italy. Strid Eriksson, I., Elmquist, H., Stern, S., Nybrant, T., 2005. Environmental systems analysis of pig production. The impact of feed choice. *Int. J. LCA* 10, 143–154.

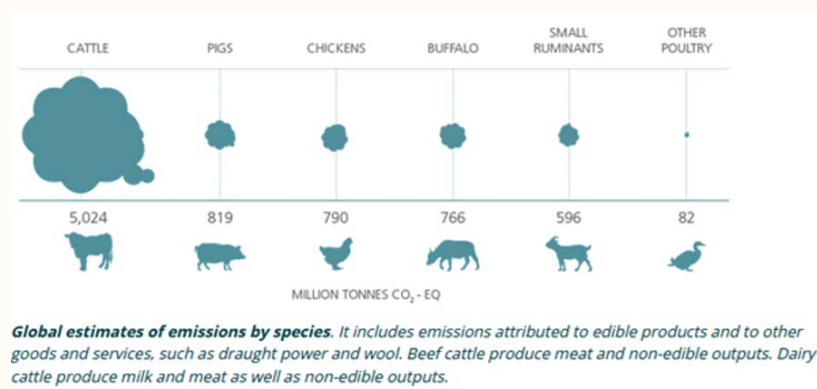
<sup>38</sup> Monteny, G.-J., Bannink, A., Chadwick, D., 2006. Greenhouse gas abatement strategies for animal husbandry. *Agriculture. Ecosystem. Environment*. 112, 163–170.

<sup>39</sup> Food and agriculture association of the United Nations (2022), GLEAM 3.0 Assessment of greenhouse gas emissions and mitigation potential.

<sup>40</sup> UCDavis (2019), *Cows and climate change*.



Beef is also an enormously resource- and emission heavy food. It produces roughly 7 times more Greenhouse gas emissions than chickens and pigs<sup>41</sup>.



This doesn't mean that beef production should be halted completely. There are methods to reduce emissions. All of these methods can be promising, but have negative aspects as well. It is a good idea to look into these methods and any other you may find. Afterwards you can look at what the stance of your country is upon using these methods and whether or not it could benefit from them. The differences between more and less developed countries will be quite large here. It is difficult to care for problems in the far future when people are currently starving and need immediate solutions. More developed countries on the other hand could have issues with necessary policy and investment costs. The question essentially boils down to, what has your country done so far and what is it willing to do in the future?

- Improve efficiency and productivity, more efficient land use, less gas emissions per kilogram of beef produced and more efficient use of feed. This can all be done without compromising animal welfare, by producing more digestible feeds, improving feeding practices, using improved grasses and legumes, improving veterinary care and grazing management. So far, usage of these methods has reduced the emission intensity of beef production over time. This hasn't halted the absolute emissions of beef production though, because people all over the world have been consuming more and more beef than before<sup>42</sup>.
- Reduce enteric methane emissions. New technology could reduce enteric methane emissions even further, there are feed additives that prevent the formation of methane in the gut. Studies have shown that these

<sup>41</sup> Climate watch (2022), Historical GHG emissions.

<sup>42</sup> Food and agriculture association of the United Nations (2022).

<sup>43</sup> Melgar, A., Welter, K. C., Nedelkov, K., Martins, C. M. M. R., Harper, M. T., Oh, J., Räisänen, S. E., Chen, X., Cueva, S. F., Duval, S., & Hristov, A. N. (2020). Dose-response effect of 3-nitrooxypropanol on enteric methane emissions in dairy cows. Journal of dairy science, 103(7), 6145-6156. <https://doi.org/10.3168/jds.2019-1784>.

additives can reduce enteric methane by 20 to even 98% without effects on the health of cattle<sup>43</sup>.

- Improve manure management. More frequent waste removal and simple things such as covering the tanks containing semi-solid waste have been proven to reduce both methane and nitrous oxide emissions<sup>44</sup>. There are Danish projects that show that by using anaerobic digesters there is the possibility to reduce the impact of manure as well. These digesters would collect manure and produce biogas out of it, which can be used to generate electricity. This way fossil fuel consumption can be avoided too<sup>45</sup>.

- Stabilize and sequester carbon in vegetation and soils. Increasing soil carbon can improve soil health, this means that soil can actually regenerate, while it still boosts yields of beef per hectare<sup>46</sup>. However, since this would require more land being used for the production of beef, this could have a negative impact in regions with high soil quality.

The impact of meat production and the increase in climate change has also resulted in water temperature changes in the oceans. This has led to issues with the fish population. Problems that have only exacerbated by overfishing. The next part will go over some of the impact of overfishing to help you on your way with your research.

## The environmental impacts of fishing

For centuries, humans have relied on the oceans, seas and rivers for sustenance. Fishing has always been a major source of food for people all across the world. The past decades have brought new technologies for fishing. These technologies have brought humans the ability to fish on a massive scale. This has its upsides (the Earth's population growth requires a lot of food) and its downsides (ecosystems collapsing).

Therefore fishing can be said to be one of the most significant drivers of decline in ocean wildlife populations. It has even brought forth the new term, overfishing, which means catching fish faster than they can replenish. On the other hand there are billions of people who need fish as food to survive and it is a source of millions of jobs across the world. Certain countries that have a heavy fishing industry are thus very wary of internationally imposed fishing limits. An example of this is Iceland, a country which is very heavily dependent on its fishermen. It provides nearly half of the country's export value in terms of products. If global fishing limits were imposed, Iceland's economy would be damaged immensely. This creates global tensions, with the United Kingdom as a strong ally of Iceland, considering their big fishing industry<sup>47</sup>.

Certain popular species of fish have been overfished to near extinction. The Atlantic cod for example used to be so popular that people said you could cross the ocean by walking on their backs. Since the 60's however, new technologies, like radar and sonar, have enabled fishermen to fish much deeper and capture cod much quicker<sup>48</sup>. Since the 1990's it has become obvious that the cod population experienced a major decline. Fishing areas off the coast of Canada had lost enormous amounts of biomass, up to even 75%<sup>49</sup>. This has led to Canada even putting a temporary ban on fishing cod, while the United States of America (henceforth known as the US) has heavily restricted the amount of time people can fish for cod<sup>50</sup>.

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<sup>44</sup> World Resources institute (2021), A Pathway to Carbon Neutral Agriculture in Denmark.

<sup>45</sup> Reuters (2022), Biden spending bill ignites debate over dairy methane pollution.

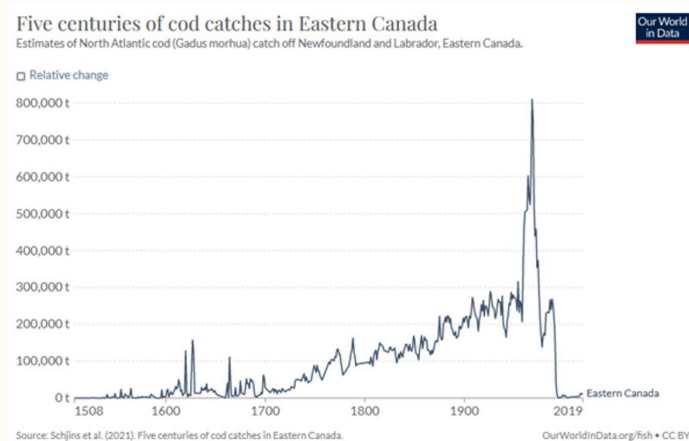
<sup>46</sup> Bradford, M.A., Carey, C.J., Atwood, L. et al. Soil carbon science for policy and practice. *Nat Sustain* 2, 1070–1072 (2019). <https://doi.org/10.1038/s41893-019-0431-y>.

<sup>47</sup> Einarsson, N. (2015). When Fishing Rights Go Up against Human Rights. In E. P. DURRENBERGER & G. PALSSON (Eds.), *Gambling Debt: Iceland's Rise and Fall in the Global Economy* (pp. 151–160). University Press of Colorado. <http://www.jstor.org/stable/j.ctt169wdcd.17>.

<sup>48</sup> NY Times (2013), Officials Back Deep Cuts in Atlantic Cod Harvest to Save Industry.

<sup>49</sup> Myers, R.A., J.A. Hutchings, and N.J. Barrowman, Why do fish stocks collapse? The example of cod in Atlantic Canada. *Ecological applications*, 1997. 7(1): p. 91-106; <https://ourworldindata.org/fish-and-overfishing>.

<sup>50</sup> Hamilton, L.C. and M.J. Butler, Outport adaptations: Social indicators through Newfoundland's cod crisis. *Human Ecology Review*, 2001. 8(2): p. 1-11.



The number of overfished populations has tripled in half a century<sup>51</sup>. Overfishing also has another negative side to it. The fishermen do not only catch the fish they want to sell, capturing unwanted sea life while fishing is also a very real problem. The phenomenon has become so serious that it has gotten a name, it's called 'bycatch'. Bycatch seriously threatens marine ecology by needlessly killing billions of fish and hundreds of thousands of sea turtles. All the while impacting other species as jellyfish, for instance, are experiencing a population boom because their natural predators are gone<sup>52</sup>. Another cause of the depleting fish stock is caused by 'bottom trawling' in which fishing ships use heavy weighted nets to capture everything on a sea-bed, destroying everything in its path including fish breeding grounds and the sea-bed flora; the practice is illegal in most countries<sup>53</sup>.

In general, overfishing presents the same dilemma as with meat production, jobs and food vs. the ecological impact. If we keep fishing at the current rate:

- People & countries will prosper for a while, until overfishing has declined the population so much that fishing companies will no longer be able to survive.
- The fishing population will dwindle quickly until certain species will be extinct and others will be heavily damaged.

Some potential solutions are implementing catch limits. This has been proven to be successful for some populations, but does place a heavy burden on fishing companies and may not always prove successful. For the Atlantic cod for example, it has not helped and there's been barely any rebound of the populations<sup>54</sup>. This is likely attributed to other factors, such as an increase in water temperature, but countries can use it to defend their fishing policies.

There are also other methods such as:

- diver harvesting of oysters, instead of dredging to protect reefs<sup>55</sup>

<sup>51</sup> Food and Agriculture association of the United Nations (2022), State of fisheries.

<sup>52</sup> Moran, K.L. and K.A. Bjorndal, Simulated green turtle grazing affects structure and productivity of seagrass pastures. Marine Ecology Progress Series, 2005. 305: p. 235-247.

<sup>53</sup> Greenpeace (2020), What is bottom trawling and why is it bad for the environment?

<sup>54</sup> Lenihan, H. and C. Peterson, Conserving oyster reef habitat by switching from dredging and tonging to diver-harvesting. Fishery Bulletin, 2004. 102(2): p. 298-305.

<sup>55</sup> Watson, J.W., et al., Fishing methods to reduce sea turtle mortality associated with pelagic longlines. Canadian Journal of Fisheries and Aquatic Sciences, 2005. 62(5): p. 965-981.

- modern techniques to reduce bycatch<sup>56</sup>

Of course, both the meat production and overfishing do not only have an impact on our planet and the fishing populations. They also have an impact on humans in the form of climate refugees and internally displaced people. The next section will quickly bring up some potential side-effects.

## Climate refugees and Internally displaced people

All of these consequences altogether cause another impact: climate refugees and internally displaced people (IDP). When there is no more fish available in regions where people have always relied on it to provide their livelihood, they will have to find other ways to support their families. This more often than not, includes having to move. This problem is made even worse by the effects of meat production on climate change and the effects this has on the bodies of water on earth. It should therefore not be surprising that overfishing and meat production are two big reasons why climate refugees and IDPs exist.

The term “climate refugee” was first coined to describe the population that is forced to flee their homes due to natural disasters, droughts and other weather/climate-related events. But it is important to understand that no official definition has been established to fully define the status of these refugees and that very limited data can be found in regards to this specific group of people. The term “climate refugee” is not endorsed by UNHCR, and it is more accurate to refer to “persons displaced in the context of disasters and climate change.”<sup>57</sup> The importance of clarifying the definition of climate change refugees goes hand in hand with the need to create an international protection mechanism for these people. With no definition, no certain protection can be offered. That said, conservative countries may only accept the term when there is an option to limit their stay in another country. Lastly, the United Nations High Commissioner for Refugees (UNHCR) released some data regarding the number of people displaced by climate change-related disasters has risen up to 21.5 million since 2010.

Climate refugees are not the only people in jeopardy however. There are also many IDPs and that number only keeps climbing. IDPs have not crossed a border to find safety. Unlike refugees, they are on the run in their home country. This means that they remain under the protection of their government, even when that government is the exact reason why they are being displaced. Since they usually move to areas that are difficult to reach it is hard to relieve the pressure on them with humanitarian aid. IDPs are among the most vulnerable people in the world<sup>58</sup>.

## Actions Taken by the International Community

There has been plenty of action taken by national governments individually to reduce the issues of meat production and overfishing. Finding internationally binding solutions isn't easy though, considering plenty of countries have different priorities and negotiate hard to get the best deal for their needs. There is also a huge disparity between developed and less developed countries, mostly from an economical perspective. This means that less developed countries expect help from rich countries to help reduce overfishing or meat production and even then they might not be too happy with it. Make sure to look into the bilateral agreements of your

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<sup>56</sup> Barlow, J. and G.A. Cameron, Field experiments show that acoustic pingers reduce marine mammal bycatch in the California drift gill net fishery. *Marine Mammal Science*, 2003. 19(2): p. 265-283; Crognale, M.A., et al., Leatherback sea turtle *Dermochelys coriacea* visual capacities and potential reduction of bycatch by pelagic longline fisheries. *Endangered Species Research*, 2008. 5: p. 249-256; Roosenburg, W.M. and J.P. Green, Impact of a bycatch reduction device on diamondback terrapin and blue crab capture in crab pots. *Ecological Applications*, 2000. 10(3): p. 882-889; Lewison, R.L., L.B. Crowder, and D.J. Shaver, The impact of turtle excluder devices and fisheries closures on loggerhead and Kemp's ridley strandings in the western Gulf of Mexico. *Conservation Biology*, 2003. 17(4): p. 1089-1097.

<sup>58</sup> UNHCR (2022), Climate change and disaster displacement.

<sup>59</sup> UNHCR (2022), Internally displaced people



nation and the Kyoto protocol's 'common but differentiated responsibilities'.

## Sustainable development goals

The Sustainable Development Goals (henceforth known as SDGs) are the world's shared plan to reduce inequality, end extreme poverty and protect the planet by 2030. After a series of negotiations, the 17 SDGs emerged in 2015 and were adopted by 193 countries.

Regarding fishing and meat production, we can observe that it can affect goal #3 "Good health and well-being", goal #6: "Clean Water and Sanitation", goal #10: "Reduced Inequalities" and even goal #2: "Zero Hunger".

Of course, this is just our general view on it and we welcome you to convince both your peers and us of your countries ideas and why these goals could not be the only ones that are affected or perhaps matter not in the discussion about overfishing and meat production.

## WTO fisheries subsidies negotiations

Encouraged by the SDGs, the WTO had the task of finding an agreement to eliminate subsidies for illegal, unreported and unregulated fishing and to prohibit subsidies that support overfishing. This included special and differential treatment for developing countries<sup>59</sup>.

## UN Food Systems Summit

In 2021, the secretary-general of the UN, Antonio Guterres has convened a Food Systems Summit as part of the work to achieve the SDGs by 2030. Be sure to look into this and what your nation's position was during it. There were nearly 300 commitments from people all over the world to accelerate action and transform food systems, but also a big pushback from the meat industry<sup>60</sup>.

## UN Reports

The UN has calculated that approximately 14.5% of human-caused greenhouse gas emissions come from meat production. Therefore the UN has explicitly called for changes to the human diet. These reports have led to national campaigns in, mostly Western, nations to ask people to reduce their meat consumption. So far the issue of meat production has largely been addressed by campaigns of NGOs and national law. There is no global binding agreement that focuses on meat production specifically. Might this COP27 be the time?

## Block positions

### Africa

While overfishing and meat production are endangering the African nations, they are also big sources of food markets for developed countries and this provides a big source of income for the people and companies there. This doesn't even look at the huge issues with food shortages some nations have to provide for their own people. If African nations want to be of help in the fight against meat production and overfishing they will need considerable guarantees and money from developed countries. They are the countries with the most climate refugees and IDPs and will need to form a strong block if they want to gain the required funding from other nations.

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<sup>59</sup> Greenpeace (2021), UN food systems summit meat climate.

<sup>60</sup> Geneva Environment network (2022), Global Response to Overfishing.



## South and Central America

Latin American countries are becoming increasingly meat-centric. Beef is the top export product for many of them. Livestock accounts for 46% of their agricultural GDP. Since the growing middle class in those countries loves eating meat it will not stop anytime soon either. They have a big meat industry, but lately it seems that they are slowly moving to more environmental-friendly ways of production. To find a solution, the meat industry has started to take first steps towards sustainable beef<sup>61</sup>.

## Europe

European nations have been and still are big consumers and producers of meat and fish. The past decade has seen a surge in vegetarianism and veganism, but eating meat is for many still a big part of their life. That said, the EU has been working on reducing the environmental impact of meat production and overfishing. They are rich nations and are willing to set up funds to help other countries as well. They often have ample research towards improvements and are advocates for international resolutions, but those resolutions are often criticized as empty by environmentalists, because they lack a concrete approach.

## North America

The US is very split currently and is sailing a very nationalistic course the past couple of years. They have a big lobby industry that advocates eating more meat and fish versus strong environmental lobbies. They are a rich country that is willing to provide funds to other countries, but not without getting certain guarantees. The US is getting more environmentally conscious, but also has huge cattle farms and is one of the biggest producers and consumers of meat. Canada on the other hand is less reliant on meat, but as been said above is very reliant on the fishing industry. It will be about finding balance between protecting their own short term versus long term interests.

## Asia, Middle-East and the Pacific

Asian countries have always been very reliant on the fishing industry, especially Japan is strongly against international regulations considering overfishing. Meat is also seen as a luxury and with a booming Chinese middle-class it is assumed that beef consumption will grow strongly. On the other hand, India and the middle-east have large religious groups that do not eat beef or pig and thus are more inclined to reduce the meat production in the world.

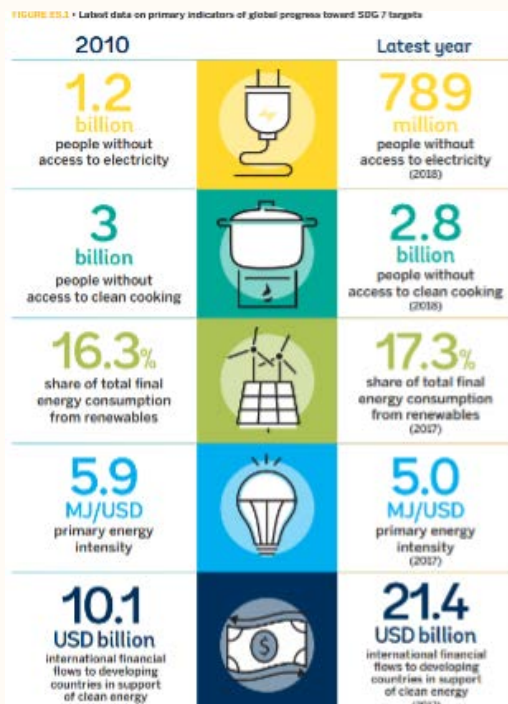
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<sup>61</sup> Diálogo Chino (2021), Latin America takes first steps towards sustainable beef.

# Topic B: Energy dependency and green energy development

## About Energy Dependency and Green Energy

Energy production represents one of the main issues when it comes to tackling climate change. A huge proportion of the greenhouse gas emissions causing the crisis come from the production of various forms of energy. When it comes to CO<sub>2</sub> for instance, a whopping 90% of all emissions are created due to the production of energy. The scientific community has been very clear; we need to move towards renewable energy sources and radically reduce our emissions, reaching net zero by 2050, if we want to succeed in avoiding the most serious and detrimental effects of climate change.<sup>62</sup>



Renewable energy sources have numerous advantages which should allow us to be hopeful for the future. They are all around us, abundantly available, often cheaper, create many new jobs, are generally far better for the health of all those involved, and when done right, the move towards renewables makes economic sense<sup>63</sup>. Despite this many issues do remain. Development of renewable energy infrastructure faces stiff competition from non-renewable sources, which are often more established and heavily subsidized. A lack of investments from the private sector as well as prejudices and mistruths about risks of renewable energies are very relevant issues that need to be tackled. Helping states, especially poorer nations, develop effective policies to help in the advancement of green energy developments as well as providing high quality information on the benefits and the truth of renewable energy sources could be helpful tools moving forward<sup>64</sup>.

A further issue to be regarded is the dependency on fossil fuels which comes from the global rise in energy demand (it is currently rising faster than the amount of energy produced using renewable resources is), as well as the issues caused by the fluctuations in supply from renewable sources. The gaps which are formed when supply and demand do not match are often filled using non green energy sources, a problem which still remains rather unsolved in the grand scheme of things<sup>65</sup>.

<sup>62</sup> UNStats (2020). The Energy Progress Report

<sup>63</sup> UN (n.d.). Renewable energy - powering a safer future

<sup>64</sup> UNEP (n.d.). What we do

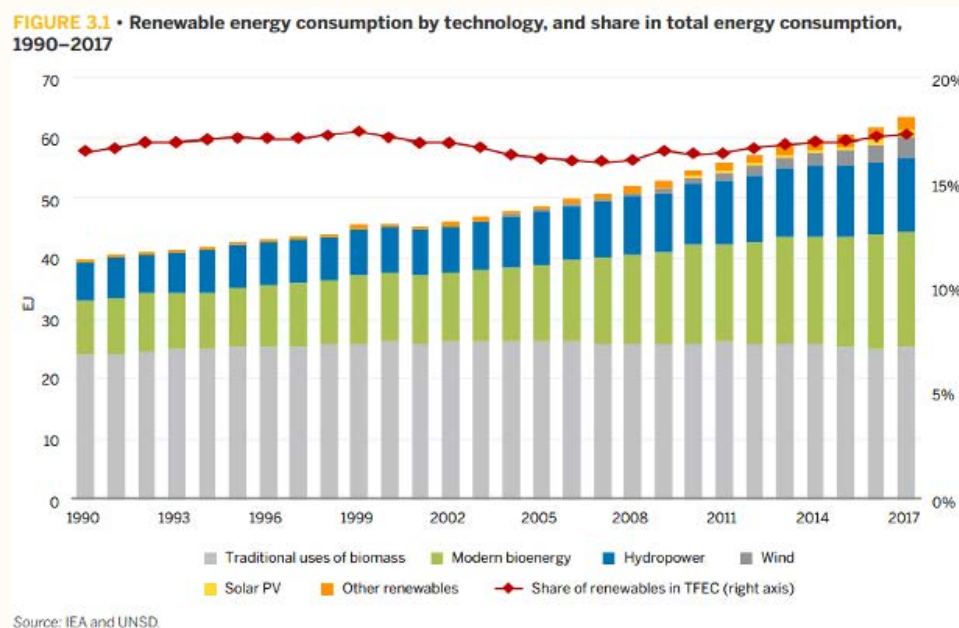
<sup>65</sup> Weizhen (2021). What 'transition'? Renewable energy is growing, but overall energy demand is growing faster

# Current Situation

As previously noted, the percentage of our energy consumption coming from renewable sources needs to increase drastically. Only about 11% of the energy used for heating and transportation internationally was renewable in 2019. In terms of electricity generation, things are a little better, the number being at around 29%<sup>66</sup>. Clearly, not all areas are created equal and not all suffer from the same challenges or benefit from the same opportunities. The same goes for individual nations.

Many Middle Eastern nations use barely any renewable energy sources, Israel or Bahrain, for instance, see less than 5% of their energy consumption coming from renewable sources. They are however not alone, the Russian Federation and the Republic of Korea for instance also fail to break the 5% barrier<sup>67</sup>. Meanwhile, the numbers for nations like Somalia, Gabon and Iceland look very different, with over 80% of their energy coming from renewable sources (data coming from the World Bank). On top of these differences in percentages, it is also relevant to observe the direction your country may be going in, as some countries, like Bangladesh, might be seeing the proportion of energy supply coming from renewables dropping steadily for years whereas most others, like Lithuania, may be observing the opposite situation<sup>68</sup>.

It is however important to have a broader look at what is going on, and not get stuck on one singular metric. For instance, the following graph shows quite clearly that the use of renewable energies is on the rise, i.e. we are producing more and more energy using these methods from year to year. However, we can also see that the share of renewables in the total final energy consumption has remained relatively constant since the 1990s, this is due to the general rise in demand. It is this gap between the heightened demand and the rising green energy production which has left nations still very much dependant on non-renewable energy sources<sup>69</sup>.



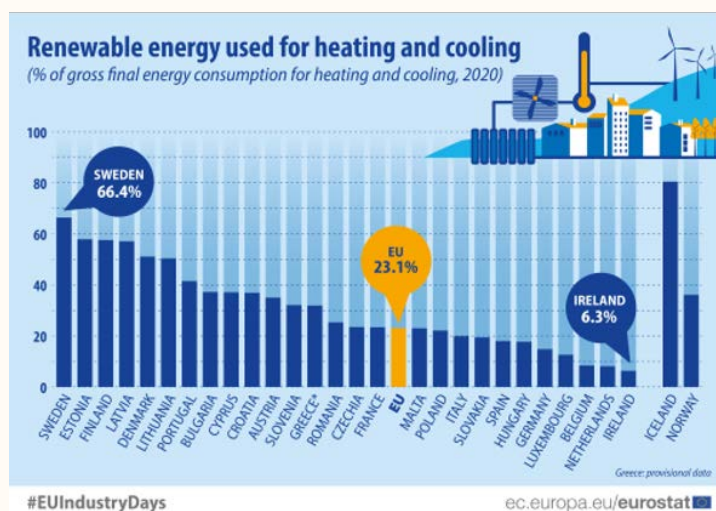
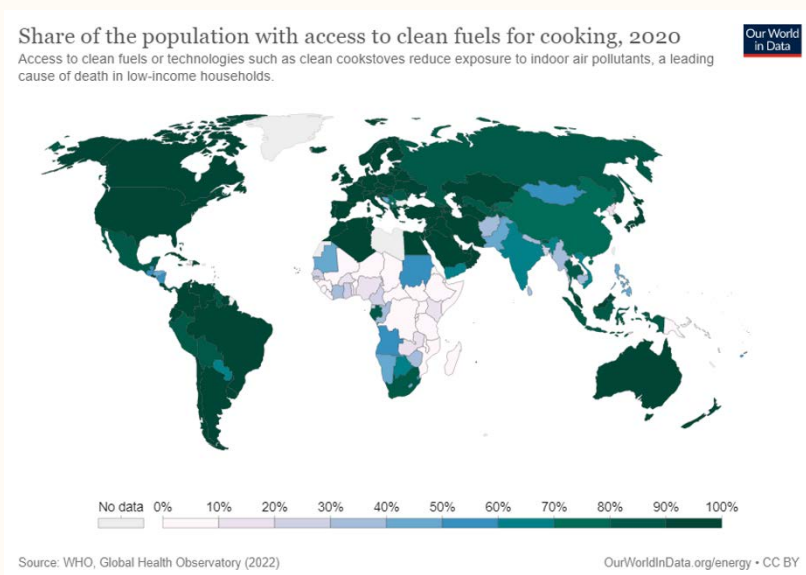
<sup>66</sup> C2ES (n.d.). Renewable Energy

<sup>67</sup> The World Bank (n.d.). Renewable Energy Consumption

<sup>68</sup> idem

<sup>69</sup> UNStats (2020). The Energy Progress Report

The rise in global energy demand is of course due to a multitude of reasons, we must however keep a very relevant issue in mind when looking into the rise of demand. The percentage of people who have access to electricity has been on the rise for several decades, reaching 90% in 2018. The world has made serious strides forward in bringing electricity to as many people as possible. However, many, numbering over 700 million still remain without such access<sup>70</sup>. Furthermore, it is not just about electricity; access to clean fuels and technology for cooking for instance is an area in which UN reports have found the international community to be significantly lacking, with only 62% of the global population having adequate access to such means. If things keep going the way they are, we will very significantly miss the targets set in this area within the SDGs, where universal access by 2030 was set as a target. Some progress has been made in Asia since 2010, however difficulties remains and the problem has seen little to no improvement in Sub-Saharan Africa<sup>71</sup>. The following map shows how disproportionately this issue affects different parts of the world<sup>72</sup>:



Another thing which is useful to look into before the conference (apart from your country's general position on whether climate change is real and/or an issue) is your nation's general strategy. What are they doing to make their energy production more sustainable? There are many different technological methods which can be and are used, and nations tend to differ, quite significantly, on which methods they prefer or prioritize.

Looking at hydropower, for instance, it comes to expected trends based on current situations, some nations like Spain or Italy are expected to use significantly less hydropower in the future, whereas nations like Sweden and Russia are expected to increase their use of this particular source<sup>73</sup>. We can go even further; the European Union recently

decided to recognize nuclear power and gas as green<sup>74</sup>, something which others, including Greenpeace, do

<sup>70</sup> idem

<sup>71</sup> idem

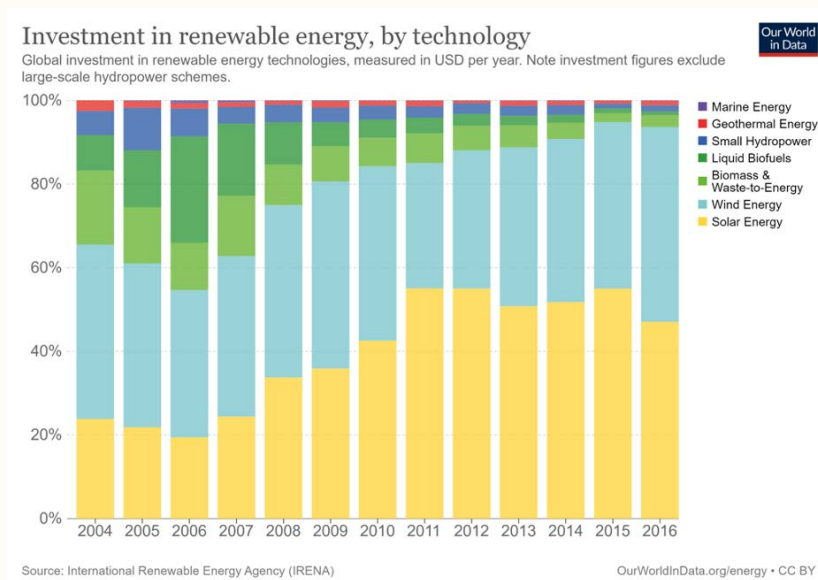
<sup>72</sup> Ritchie et. al. (n.d.). Renewable Energy

<sup>73</sup> CEDREN (n.d.). Increasing the share of renewable energy in the global energy mix

<sup>74</sup> DW (2022). European Parliament backs listing nuclear energy, gas as 'green'

not agree with<sup>75</sup>. All this to say, countries around the world have different ways of going at the issue at hand. Some solutions may work better in some places than in others. There is no uniform solution. There isn't even a full consensus on what energy generation methods are and are not green. Even partners often don't agree; the aforementioned decision by the European Union for instance was promoted by France, all the while Germany was seeking to have nuclear energy banned<sup>76,77</sup>.

Another issue which faces us when we seek to reduce our dependencies on non-green energy sources, is the instability of the amount of power which is generated by certain renewable energy sources. It may seem obvious that on sunny days, production will be much higher than on rainy ones when observing solar energy; this intermittency is particularly pronounced between night and day where there is less wind and sun to produce the necessary electricity. Using the hydropower example again, some countries like China or India have seen the amount of hydropower they produce decline in 2021 despite having seen significant increases in previous years. At the same time, other countries, like South Africa, Mexico or the Ukraine have seen significant increases in 2021<sup>78</sup>. These significant fluctuations have a wide array of different reasons behind them but cause significant issues. They are non-controllable and often unpredictable fluctuations, making it very difficult to find adequate solutions allowing electric grids to meet demand when it comes<sup>79</sup>.



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The topic in general is very broad, with many relevant parts to be considered. Hopefully, this intro has given you somewhat of an idea as to what is important, but this is certainly not a complete summary of what problems the world currently faces. With a look at the SDGs and the goals set out within them, you will find the issues mentioned as well as many others such as energy efficiency for instance. You can and should find other areas to be tackled, which may be more important to your nation. Also remember that energy consumption is a very broad term and many different things are included within it. Going into every single one is not possible (and it won't be at the conference either, so find out what your nation's priorities are). We hope to have given you a little insight into some of the main areas.

<sup>75</sup> Leman (2022). 6 reasons why nuclear energy is not the way to a green and peaceful world

<sup>76</sup> The Economist (2021). Nuclear energy united Europe. Now it is dividing the club

<sup>77</sup> Eurostat (n.d.). Renewable Energy Statistics

<sup>78</sup> Ritchie et. al. (n.d.). Renewable Energy

<sup>79</sup> Papavasiliou et. al. (2010). Supplying renewable energy to deferrable loads: Algorithms and economic analysis

<sup>80</sup> Ritchie et. al. (n.d.). Renewable Energy



# Action taken by the international community

Much has been tried on the international stage to tackle the problems relevant to this topic. It is very important to find out what sort of bilateral agreements your nations may have (they may be helping another nation in their green energy development or may be receiving aid from a neighbor), but in this study guide we will focus on actions taken by the international community as a whole, looking into the complicated UN system when it comes to energy.

The United Nations does not have a particular, singular entity which is responsible for all things energy. Therefore, when tackling energy related issues, the UN finds itself having to cooperate with the actions of several different entities to achieve its goals. For this reason, UN-Energy was established by the UN System Chief Executives Board of Coordination in 2004. To this day, the agency remains the primary agent within the UN promoting the necessary corporations.

In regard to the SDGs, UN-Energy naturally focuses on SDG7. It is their aim to help nations reach their goals under SDG7, having in mind the broader goals set out in the Paris Climate Agreement and the other SDGs<sup>81</sup>. The agency has 4 main jobs:

- Information: They help nations make informed policy decisions by providing evidence-based information.
- Knowledge-sharing: They act as a forum where nations, partners and organizations can share experience and knowledge of best-practice.
- Mobilizing partnerships: They promote partnerships and cooperation between a wide range of actors in order to meet the goals set out in SDG7.
- Strengthen advocacy and communication: Using information from various sources they try to achieve accurate, reliable and objective information on sustainable energy trends as well as potential management issues<sup>82</sup>.

A recent achievement is the Global Roadmap for Accelerated SDG7 Action, which can be understood as a summary of the High-Level Dialogue on energy having taken place in September 2021. The Roadmap itself was released on the sidelines of COP26 and calls for action to achieve a number of goals relating to SDG7:

- Close the energy access gap
- Fast transition to decarbonized energy systems
- Mobilize financing
- Harness innovation, technology and data
- Ensure an inclusive, net-zero future

This High-Level Dialogue was the first of its kind on energy for over 40 years and saw more than 130 Heads of State and Government as well as other representatives and stake-holders come together. The Roadmap itself lays out a wide range of short term milestones to be met by 2025 if we are to achieve our long term goals<sup>83</sup>. On top of that, the Roadmap is not a closed book, but will see further discussion on current trends, progress and commitments at UN-Energy's Action Forum on the 23rd September 2022<sup>84</sup>. In general, UN-Energy themselves point out that actions taken to this point are inadequate and that we need to move fast to meet our goals in these particularly difficult times (we must not forget the international events which are harming economies and worsening situation of energy dependence and availability, in particular, we mean the COVID-19 crisis and the war in the Ukraine)<sup>85</sup>.

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<sup>81</sup> UN-Energy (n.d.). About UN-Energy

<sup>82</sup> idem

<sup>83</sup> IISD (2021). Secretary-General Issues Roadmap for Accelerating the Energy Transition

<sup>84</sup> UN-Energy (n.d.). Home

<sup>85</sup> UN-Energy (n.d.). Sustainable development Goal 7

Another important aspect of the work done by UN-Energy are its Energy Compacts. These are voluntary commitments to specific action in order to advance SDG7 progress which the agency puts together with member states and organizations. Examples of such compacts include the Health Facility Electrification Compact, which committed partners of the pact, which included nations like Denmark and organizations like the Shell Foundation, to provide 25 000 health facilities with sustainable access to a clean and reliable power source by 2025, or the “24/7 Carbon-Free Energy Compact“, led by none other than Google, which committed about 50 partners to fully decarbonizing global electricity grids<sup>86</sup>.

However, UN-Energy is not the only agency associated with the UN which puts forward recommendations to nations and other partners and tries to ensure relevant and impactful commitments, there are many others. One showing recent success is the World Meteorological Organization (WMO), a specialized agency of the UN with the goal of ensuring international cooperation when it comes to the Earth’s atmosphere. The organization’s 2021 report was described by UN Secretary-General António Guterres as a “dismal litany of humanity’s failure to tackle climate disruption”<sup>87</sup>. At the launch of the WMO report the Secretary-General announced a new plan with the aim of kick starting the transition to renewable energy. The plan included the following 5 points:

- Treating renewable energy technologies as essential global public goods
- Secure, scale up and diversify the supply components and raw materials for renewable energy technologies
- Build frameworks and reform fossil fuel bureaucracies<sup>88</sup>
- Shift subsidies away from fossil fuels
- Private and public investments in renewable energy must triple

With the UN itself recognizing this plan as long overdue and the reports which motivated it, both from the WMO and the Intergovernmental Panel on Climate Change (IPCC), as the likely bases for discussions during the upcoming COP27, this really does represent the current stance from the UN perspective<sup>89</sup>.

Then, on the issue of clean cooking, the world is still clearly falling behind on its goals, mainly due to a lack in prioritization for the issue<sup>90</sup>. While some of the aforementioned Energy Compacts do include commitments to help in the fight for better access to clean energy for cooking, it is not enough. When speaking of trying to promote clean cooking, we are speaking of attempts to assist in poorer nations’ developments enabling people to move away from the usage of fuels like wood or coal and traditional stoves for cooking, and move towards more efficient, less polluting and more environmentally friendly means. Do note that the issue is not a purely environmental one. The lack of access to clean cooking is of economic and political importance as well. We should consider for instance how the issue disproportionately affects women and children<sup>91</sup>. We should therefore consider the work done by the Clean Cooking Fund<sup>92</sup>.

Established at the UN 2019 Climate Summit, the Clean Cooking Fund is the first ever fund to focus on increasing the investment in clean means of cooking, having the goal to achieve more private and public sector investment in the sector. To date, 26 countries have benefited from its creation. Their work can be described as being built around two main pillars. The first one aims to cofinance specific projects with the aim of scaling up investment from other actors. The second one concentrates on working with partners to reach important political commitments, both on the global and on the regional level, ensuring accurate information is provided and promoting innovation and better cooperation (again, globally and regionally).<sup>93</sup>

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<sup>86</sup> Sustainable Energy for All (n.d.). Energy Compacts

<sup>87</sup> WMO (2022). UN chief announces renewable energy initiative at WMO climate report launch

<sup>88</sup> The goal is to have nations streamline the approval for solar and wind development projects.

<sup>89</sup> UN (2022). ‘Lifeline’ of renewable energy can steer world out of climate crisis: UN chief

<sup>90</sup> Zhang (2021). Accelerating Access to Clean Cooking Will Require a Heart-Head-and-Hands Approach

<sup>91</sup> The World Bank (2019). Clean Cooking: Why it matters

<sup>92</sup> Zhang (2022). From cooking poverty to cooking decency: A heart-head-hands approach and five ,I’s actions

<sup>93</sup> ESMAP (n.d.). Clean Cooking Fund



In general, the amount of action taken on a truly international level is quite limited. This does not mean there is no hope. For instance, in July 2022 the UN General Assembly passed a resolution declaring that access to a healthy environment is a universal human right. While this may not seem directly connected to clean cooking, air pollution has emerged as a main issue which might need to improve in many areas due to this new declaration. Seen as air pollution issues are often caused by, and most prominent in countries with, a lack of access to clean cooking methods, the resolution may create a new basis for the fight, with people being able to claim their right to a healthy environment<sup>94</sup>, something which was previously not possible.

## Block positions

### Africa

The main challenges for many African nations when it comes to climate change remain the low level of access to technology as well as poverty levels in many regions. As previously seen, Africa is hit particularly hard by the clean cooking problem, but the percentage of individuals on the African continent with access to electricity is also lagging behind other regions. For these reasons, many African nations are left very vulnerable to the future effects of climate change, and with a low capacity to mitigate the potential challenges to come. African nations often need help with funding and improvements to their technological and institutional capacities. International cooperation is also needed to help make adaptations on the regional level where the issues tend to be most pronounced.

African nations see the respect of previously made commitments, such as in the Paris Climate Agreement, as essential. Another priority is the inclusion of poverty reduction strategies in development programmes and policies.<sup>95</sup>

For specific examples we can look to Kenya, where in some areas the number of people reliant on non-clean cooking methods has been on the rise in recent years. Clean cooking issues are causing problems to people's health, quality of life and are raising the nation's greenhouse gas emissions<sup>96</sup>. At the same time, the turn to renewable energies offers a huge opportunity to many African nations. Mozambique for instance, where renewables already make up almost 80% of energy production<sup>97</sup>, is a good example of a nation experiencing many opportunities for a bright future with renewables in its center<sup>98</sup>.

### Latin America and the Caribbean

Nations in the region recognize the threat climate change poses to the quality of life of its citizens, and have therefore been taking action on a national level. Regional cooperation is also on the rise with the creation of regional registers of active initiatives. They believe there could be much to gain from the international community facilitating synergies between energy efficiency, clean production and climate change agendas. They also want stances on funding to be better coordinated going forward<sup>99</sup>.

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<sup>94</sup> UNEP (2021). After landmark UN declaration, hope for cleaner air

<sup>95</sup> UN (2007). Climate Change Around The World: A View From The UN Regional Commissions

<sup>96</sup> The Standard (2022). Why climate-friendly cooking is good for Kenya

<sup>97</sup> The World Bank (n.d.). Renewable Energy Consumption

<sup>98</sup> GGGI (n.d.). Mozambique

<sup>99</sup> idem

The region does however see many differing view. In the past years Brazil's president Jeir Bolsanaro has been taking the nation on a different path, focusing less on green energy sources<sup>100</sup>, while others like Peru are making serious attempts at increasing their usage of renewable energy sources.<sup>101</sup>

## Europe

Many European nations, especially European Union members, plan to make significant changes in order to reduce their impact on the environment, however many feel that international plans often lack in details as to how they are meant to be implemented. An issue they would like to solve is how renewable energy sources can be made more efficient, this being seen as environmentally and economically important. That's why European nations are often more active in this area; willing to set up funds, help with capacity building and focussing on raising awareness.

Being very concerned about air pollution, many European nations seek to increase research into ways we could make energy production less pollution and want an international approach to this issue<sup>102</sup>.

As previously mentioned, one should note that Europe still cannot be seen as a pure unit on these issues. France viewing nuclear energy as green while Germany strongly disagrees is something we already mentioned. But there are other examples of nations disagreeing with the ways others are managing their energy usage, such as Hungary who often oppose measures by the EU and other partners<sup>103</sup>.

## Asia and the Pacific

With oil prices on the rise, climate action is becoming more appealing to nations in the region with their economic development goals and energy security in mind. Many see the importance of the development of alternative energy sources as rising and want climate policies and national development plans to be integrated. In general, many are starting to see the economic benefits of renewables. Looking to the future, these nations will look for the most cost-effective options and hope to rely on low-cost policy measures.

This is however not true for all nations, if we look to the Gulf states like Kuwait and Qatar for instance, we can see that renewables energy sources, though abundant, have remained almost unused throughout the last decades<sup>104</sup>.

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<sup>100</sup> Proaño Maximiliano (2018). Brazilian energy under Bolsonaro's government: Brazil above all?

<sup>101</sup> Oxford Business Group (n.d.). Peru targets investment in renewable energy

<sup>102</sup> idem

<sup>103</sup> Financial Times (2022). Viktor Orbán lashes out at German 'bombshell' energy package

<sup>104</sup> Sim Li-Chen (2022). Renewable power policies in the Arab Gulf states

# Recommendations for the delegates

First of all, try not to be overwhelmed. The topics are very broad and there is so much you could know about it, but no one is expecting you to know everything. It is important that you know the situation in your country as well as their strategies. Other than that, if something comes up which you do not know, you can always still look it up.

Make sure to look into which topic is more important to your country, or which one they would be more willing to talk about. This will be important when we are setting the agenda (one of the first things we will do).

Make sure you look into what your country's struggles are, and what they want the international community to do about it. At the same time: What is your country willing to do to help others? What commitments has your nation already made and how have they helped others in the past? Knowing who your nation's partners are on the issues we are going to discuss can prove very helpful.

Taking the SDGs as reference: think about past projects (they can be local or national ones, or you can even come up with ones of your own) and try to come up with an idea for new projects. Past projects can often be used as inspiration for parts of a resolution.

Regarding solutions: they can be global or regional. This means that you can either create some general terms for all countries to adopt or try to focus on several regions (such as the most affected areas or even several continents).

Your solutions need to be creative yet realistic. Please be sure you consider the WHOs and HOWs.

- Who: Who will fund it? Who will benefit from it?
- How are you going to do it? This question is more related to your creativity and the caution of finding something that almost any country can/wants to apply.

Make sure to have some data on your nation's energy production for instance (what percentage is renewable? Which types of renewable energy do we use (most?)) and their trends (More or less renewable? Are we focusing on upping our use of a particular type of renewable energy?).

Please remember, this guide is not a complete overview of the issue and the relevant actors, many things had to be left out. This does not mean that you cannot try and tackle other issues or bring up other agencies and actors. In fact, you should go beyond this study guide and look for issues relevant to your country. Same goes for potential solutions, please be creative with your potential solutions!

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