

YMUN China 2025 Topic Guide

UNITED NATIONS DEVELOPMENT PROGRAMME

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Letter from the Dais

Dear Delegates,

I am delighted to serve as Director of the **United Nations Development Programme (UNDP)** for this iteration of YMUN China. The UNDP is part of the General Assemblies, and is tasked with promoting action towards fulfilling the 17 Sustainable Development Goals by 2030. In addition, it monitors progress towards these goals in every nation to offer support and make sure no country is left behind.

With the growth of artificial intelligence, technological innovations, and research breakthroughs, human life is made easier every day, but this globalization comes with its setbacks. Increased industrialization burns fossil fuels that lead to climate change, causing an increase in natural disasters and unseen environmental changes that cause significant destruction of infrastructure. Use of genetic modification to manipulate food and drugs can result in unforeseen consequences on the human body. Finally, automation's takeover of various industries have caused human workers to be replaced by machinery. These are all issues that will be tackled in committee through avid discussion of our two topics. Topic A: Monitoring the Future of Biotechnology deals with the different sectors of biotech from agriculture to healthcare, looking at the new innovations being developed in addition to the challenges that might place certain countries ahead of others. Topic B: Evaluating the Implementation of Climate-Resilient Infrastructure analyzes the ways climate change is affecting global infrastructure and how prevention techniques may serve to protect from long-term damage.

My name is Amanda, and I am a first-year hoping to major in neuroscience on the Pre-Med track. I also enjoy playing the viola in the Yale Symphony Orchestra, playing chamber music, and going on long-distance runs with Yale Club Running. Like you, I started MUN back in high school, but MUN continues to be such a big part of my life here at Yale: it has taught me I don't have to be the loudest, most confident person in the room to be heard. There are always intersections for collaboration for two seemingly opposing agendas. Most importantly, it is amazing what can come from a bunch of high schoolers debating a world issue.

I truly hope that I can replicate the life changing conversations I experienced through MUN for you all at YMUN China 2025. I am so excited to begin this journey in China this May!

Signed, Amanda

Committee History

The United Nations Development Programme was established by the UN General Assembly in 1965, as a combination of the Extended Programme of Technical Assistance (EPTA) and UN Special Fund committees. The EPTA had previously worked on development assistance, in guiding developing countries towards economic development across various sectors, while the Special Fund provided the monetary support necessary for the furthering of these goals. The UNDP's role encompasses a combination of these tasks. Currently the UNDP focuses on addressing the 17 Sustainable Development Goals (SDGs) established by the UN to be completed by 2030.

The SDGs are a deeply interconnected set of objectives that the UN is working to achieve in all countries by 2030. They are rooted within six core development areas: poverty, governance, resilience, environment, energy, and gender equality. With a budget of over 4 million and operation in over 170 nations, the UNDP monitors and futhers progresses towards these goals by providing advice on policy making to other UN agencies, nations, NGOs, governments, and businesses. Some previous policies addressed by the UNDP in relation to these goals include reducing sexually-transmitted diseases, electoral reform, security management, and decentralization of power.

The structure of the UNDP consists of an administrator that oversees discussion within a board of 36 member states, 12 developed and 24 developing. The board rotates every few years, but always includes representatives from the 5 regional bodies, Africa, Asia-Pacific, East Europe, Latin America, and West Europe/Other. The UNDP also oversees 6 global centers in Seoul, Nairobi, Singapore, Istanbul and Norway. These global centers specialize in a more specific topic such as technological innovations, environmental sustainability, governance, and public-private partnerships. Another significant project the UNDP oversees is its Goodwill Ambassador program, which recruits celebrities/other public figures to promote visibility of the SDGs.



TOPIC ONE

Monitoring the Future of Biotechnology



Introduction

The future of biotechnology is extremely critical to globalization, with more biological processes being automated to increase precision and efficiency. To monitor the effective implementation of these technologies into society, regulations must be put in place to more comprehensively understand their role for different nations.

Glossary

Automation: increasing efficiency of production in lab processes using automatic equipmentR&D: Research and Development sector, process of creating new products to solve challengesBioprocessing: making products from living sources/biological organisms

Genetic engineering: modifying DNA to alter characteristics of plants, animals, other microorganisms **Microbial/Micro-organism:** extremely small biological organisms that can be bacterium causing disease

Industry 4.0: the 4th Industrial Revolution that is focused more on digital transformations and integrating different fields of technology

Digital Twin: a virtual model of an object or system that represents a physical one using data and machine learning

Digital Microfluidics: manipulating extremely small droplets to perform complex lab procedures **Artificial Intelligence (AI) and Machine Learning:** computing technologies using advanced functionalities to develop algorithms that run reproducible, efficient processes

Synthetic biology: eliminating undesired traits to create more nutritious/higher-yielding plants

Topic History

Biotechnology was a term first coined in 1919, and involves integrating science and technology to make human life more convenient. It utilizes biological processes to create innovations that address environmental or health issues. Some examples include genetically engineered plants modified to produce higher yields in better quality and nutrition, clean energy and manufacturing, and combating chronic diseases with personalized treatments. Historically, these techniques have already been implemented through means not necessarily recognized as "technology". Biological processes have been manipulated in cooking bread or fermenting cheese since the start of the Neolithic age. Other types of ancient biotechnology includes domestication of animals, cold saving food, or crossbreeding to create species such as the mule.

Classic biotechnology started in the 1800s and continued on into the mid-1900s, and involved the transfer of genetic information. Examples include Mendel's observations in the pea plant regarding the passing down of genetic traits, HeLa cells that were used to study continuous cell line creation in cancer, and the discovery of penicillin and other antibiotics. Since the 1970s, the modern age of biotechnology began with the increase of genetic engineering, biopharmaceuticals, building the human genome, and most recently gene editing with CRISPR technology. Biotechnology has since become a mainstream industry as a result of significant investments in research and development by several countries. Recent breakthroughs also include biopesticides derived from natural materials, the expansion of biodegradable materials, and deeper understanding of viral infections.

Current Situation

Biotechnology has an increased significance in our modern world as countries begin to realize its efficiency in targeting sustainable development goals related to hunger, sustainability, poverty, and more. It can be categorized into four groups: agricultural, medical, industrial, and horizontal/multi-dimensional. Within each of these groups comes unique innovations.

The agricultural category is dedicated to improving crop yield, resilience against changes in the environment, enhancing specific desired characteristics in plants and animals and more. This is known to be most prominent in genetically modified organisms, which are more frequently being used in various food products. With climate change being an emergent global challenge, crops must also bear the ability to withstand natural disasters, changing soil conditions, mutating strains of viruses carried on pests, and global warming. Genetic modifications can generate characteristics in species that render

higher yields, better quality, and higher nutrition. This can be especially important for regions that have issues with hunger and poverty, because more nutritious food in higher quantities can be utilized to serve hungry populations.

The medical or pharmaceutical category is focused on researching and manipulating genetics to create individualized treatments for patients with chronic illnesses. It also entails delivering more precise detection of the disease itself. These can both be achieved by developing more accurate means of reading genetic material or replicating genetic material between individuals. Digital health is also a rising sector: how can health diagnoses and accessibility be increased when there is less of a need for physical access to a clinic?

From agricultural based technologies enhancing crop resilience to biomaterials replacing petroleum based fuel, biotechnology has the power to leverage change like never before. Furthermore, the recent rise in artificial intelligence and machine learning has given even more potential to innovations within biocomputational technology. In fact, automation has the power to minimize human error, increase standardization, reproducibility and precision. However, its role within different regions around the world varies due to the funding allocated by different governments and the most pressing challenges each country faces. Each region's focus and current progress with biotechnology in the global field are explained below.

Latin America:

In Latin America, biotechnology is a field that is gaining significant progress, making the region a potential key player within the industry in the coming years. This progress has come from increased investments from the governments of nations in the region. The funds have been directed towards educating scientists, researchers and engineers. Investment in education is critical because it generates a growing pool of professionals who will create future biotechnology startups. Some main categories that these governments are focusing on include agricultural, pharmaceutical, industrial, marine, bioinformatics, and regenerative medicine.

Despite these concerted efforts, challenges persist due to a lack of significant funding for research. Talent drain is another barrier to progress, with many skilled individuals leaving the region to work in more high-paying industries around the world. However, with the government's interest in the field and progress with education, there is significant potential for Latin America to emerge as a future leader in biotechnology.

Crop yields and genetically modified organisms are a sector that is particularly emphasized in Latin America. GMOs are separated into two different categories, first and second generation. First generations are about altering plant production such as planting and crop management, while second generation are about the final product, such as increasing certain characteristics. Crops most commonly modified include soybean, maize, potato, alfalfa, wheat, and cotton. The adaptations, regulations, and innovative technologies utilized by Latin America in the genetic modification field has resulted in significantly higher crop yields and better crop quality.

Europe

Despite formerly being a world leader in the biotechnology industry, Europe has recently fallen behind countries such as South Korea, China, and the United States. This has occurred not only due to a lack of investment from governments in the region but also lack of competitiveness compared to different sectors when it comes to allocation of funds. The European Commission has emphasized the importance of the biotechnology sector being competitive to help Europe regain the lead in terms of innovations. This means minimizing the risk taken in any single innovation and minimizing each individual investment.

However, Europe has still produced many patented technologies in recent years specifically within genetics, drawn from processes involving large biomolecules such as nucleic acids. These new genomic techniques are able to produce faster, more precise results for cloning microorganisms, breeding a specific type of species, and spreading genes faster than natural inheritance. An example of this are genetically modified mosquitoes, which are limited by genomic techniques to carry less of a virus. This can be especially significant in combating vector transmitted diseases such as malaria. In terms of regulations, the European Food Safety Authority has policies to evaluate potential negative effects genetically modified organisms may have on the human population.

Asia

Asia has established itself as a global hub for biotechnological innovation, with the pandemic driving an inwards investment into the sector and decreased reliance on international innovations. Heavy spending is spent on research and development, with an influx of private government funding and grants. This has occurred mainly because governments have recognized biotech as an effective way to address global goals such as food security, climate resilience, and decarbonization. Over \$3.5 billion was raised for biotech startups in just the last three years. Asia is also at the forefront of utilizing artificial intelligence and robotics to optimize bioprocessing efficiency/productivity. China and India are countries in particular that have prioritized biotech development, with major talent development and high-tech science parks. An example of this is BioE3 in India, which includes 5-year plans with specific milestones targeted towards accelerating innovation.



The policy's scope is broad and ambitious, encompassing several strategic sectors:

Top projects that these countries are pursuing include waste-to-energy conversions that reduce carbon footprint, selective genomic pig breeding, microbial fermentation using feedstocks as raw materials, utilizing waste from kitchens to produce energy, as well as microbial separation/cultivation. Competitiveness is ensured by prioritizing operational efficiency over a human-centered approach, which can often be more costly and less precise. Holding packaging producers accountable for waste generation is an example of a technique that incentivizes investments in biotechnologies to minimize waste production.

Africa

In Africa, biotechnology is mainly being used for combatting food shortages and poverty (Sustainable Development Goals 1-3) through agricultural development. For example, improving crop production through bolstering pest resistance and tolerance to other environmental stresses has been a priority in recent decades. Africa developed insect-resistant cotton in 1998, insect-resistant maize in 2001, followed by herbicide-tolerant soybeans and more. Commercializing genetically modified crops such as cotton, soybean, maize and cowpea has been a major change that signifies progress towards improving food security.

Although the market for GMO crops is multiplying, Africa still faces significant challenges in this sector, from the lack of production facilities, to lack of universal regulations monitoring the implementation of biotech across countries. Equipment and personnel availability has also been an issue with a lack of skilled researchers in the region. Understanding how biotechnology can most efficiently combat nutrition security would incentivize investing in research that solves crop related issues. This research can be made most effective through linking with non-governmental organizations (NGOs), as well as joint projects with other continents.

A Path Forward

Overall, biotechnology has the power to forge significant progress towards goals of sustainability, reducing poverty, expanding healthcare, and other critical objectives. In order for its full potential to be reached, developing countries must be given the same resources to invest in biotech R&D as wealthy countries. Perhaps this means increasing investments in biotech startups so they may expand their services, or encouraging partnerships between companies so that information can be more readily exchanged, preventing competition. Furthermore, innovations must be more readily shared among countries rather than being reserved for populations that can afford it. Finally, despite the benefits biotechnology brings, regulations must be put in place to prevent the spread of innovations that have not been rigorously evaluated.

Questions to Consider

- 1. As tools for genetic engineering and biotechnology become more widespread and cheaper to access, how do we regulate their usage?
- 2. How do we ensure no unpredicted effects occur from the integration of manipulated biological molecules into our environment and food?
- 3. How do we encourage expansion of the biotechnological industry in countries that prioritize funding elsewhere?
- 4. What are ways that artificial intelligence and automation could be integrated into the industry to maximize human benefit?
- 5. How does the future of biotechnology intersect with the UNDP's efforts to target the sustainable development goals?
- 6. Which of the sustainable development goals are biotechnology most suited to combatting? Does this vary by region?
- 7. What are some possible setbacks to expansion of biotechnology startups and how can they be overcome?

Additional Resources

https://www.bbc.com/news/articles/cw551yelwz50

https://www.npr.org/2025/02/25/nx-s1-5307318/50-years-after-a-seminal-conference-big-ques tions-about-biotechnology-remain

https://grail.com/multi-cancer-early-detection/

https://www.mcphs.edu/admission-and-aid/blog/what-is-biotech

https://www.rockwellautomation.com/en-nz/company/news/magazines/feature-biotech.html https://www.efbiotechnology.org/

https://food.ec.europa.eu/plants/genetically-modified-organisms_en#new-techniques-in-biot echnology



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TOPIC TWO

Evaluating the Implementation of Climate-Resilient Infrastructure



Introduction

With the rise of climate change and the tremendous burden it places on nations around the world, it is important to think about the types of infrastructure that can be made to reduce the negative impact these environmental changes have on the human population.

Glossary

Urban Heat Island Effect: when urban communities are more susceptible to global warming because pavements and buildings absorb more heat

Brownout: dimming of power caused by issues with electrical grid or to prevent a complete power outage

Green Gentrification: zoning underserved communities into areas that are more prone to climate disaster due to higher living costs of climate resilient areas

Adaptable Architecture: buildings with open spaces that can be multifunctional, evolving zoning and housing codes, moveable objects

Natural Infrastructure: utilizing nature-based solutions/biomes to produce same climate effects at a higher quality and lower cost

Blended Financing: mix of private and public funds in a complementary fashion to finance a cause **Green Sukuk:** Islamic finances dedicated entirely towards green development and environmental sustainability, aligned with Sharia principles

Topic History



The movement for climate resilience began in the late 1900s and continued into the early 2000s. It was driven by meetings such as the 1992 'Earth Summit' during which the UN Framework Convention on Climate Change was signed and the Kyoto Protocol, established in 1997. In 2015, the Paris Agreement urged countries to set urgent action plans enhancing adaptability and resilience on the path towards achieving the sustainable development goals. The Conference of the Parties, or COP, is the supreme governing body of the UNFCCC, and oversees its implementation in all member states. As a result of these binding conventions, policymakers and business owners have since begun placing more of an emphasis on scientific research when making decisions, especially regarding climate-resilient infrastructure. For example, when constructing roads, they have taken into account 100-year rainfall and flood patterns to increase resilience.

However, more has to be done, especially in low-income countries, with expanding construction of said infrastructure in regions that are vulnerable to climate change. This expansion includes infrastructure such as sanitation systems, energy, clean water, transportation, and communication networks. In developed countries, these forms of infrastructure can be upgraded to be more adaptive to the environment. Codes that are being used to construct infrastructure could be continuously updated to include environmental changes. As climate change has become increasingly relevant in recent years, the need to invest in climate-resilient infrastructure has become all the more important.

Current Situation

Climate-resilient infrastructure is characterized by its ability to withstand impact and recover quickly following disruptions. Planning and creating infrastructure with possible climate impacts in mind reduces vulnerability and increases adaptability to changing environments. Furthermore, resilience guarantees that essential functions including power, water, and food are continued even through climate disasters. Finally, climate resilience protects the environment by increasing sustainability and furthers global goals equally between countries. These objectives have become especially important as the UNDP seeks to achieve the SDGs, many of which would be positively influenced by the establishment of climate-resilient infrastructure. Resilience requires a combination of adaptation, creating systems that can thrive under changing conditions, and mitigation, increasing energy efficiency and renewables. Adaptive systems incorporate natural buffers and ecosystem restorations or agricultural practices such as stronger crops.

Climate change has taken on many forms in the past few decades, the most prominent of which is global warming. Earth has risen by about 1.1 degrees Celsius since the preindustrial era, leading to the occurrence of more climate hazards and extreme weather events. For example, extreme heat causes heat-related deaths, worsening illnesses, melting roads, wildfires, and plastic melting into the water supply. Many of these effects create risks that multiply exponentially over time. Permafrost thawing due to increased temperatures also decreases the stability of building foundations, making infrastructure more susceptible to earthquakes, storms, hurricanes, tsunamis, and other disasters. Global warming also means that countries receive less precipitation than expected, leading to drought and a reduced water supply. Storms and sea-level rise cause coastal flooding and erosion that damages buildings, roads, airports, ports, power plants, communities and more.

These negative effects can be combated by increased flexibility in architecture plans, implementation of prevention techniques, creating redundant systems, and using more durable materials. Flexibility can take the form of more mobile, multifunctional architecture, adding more land in building foundations, and distributing more power generators. With the increased uncertainty in the climate, flexibility is especially important to adapt to the environment. Prevention against floods includes constructing buildings at a higher level so they are harder to reach by rising tide, using waterproof materials, and constructing flood barriers. Prevention against storms can be achieved by connections between the foundation and roof of buildings, braces, and wind-resilient material. Finally, prevention against heat/drought can look like constructing buildings in areas with less sun exposure, increasing usage of fans and triple-glazed windows, or implementing tanks to collect rainwater for irrigation/plumbing.

Redundant systems means having multiple means of access to essentials (power, water, food, etc.) so that access isn't completely cut off if one system is destroyed. Durable materials include self-healing concrete, lighter colored paint, cool roofs that reflect sunlight, smart windows that retain heat and maintain humidity, as well as fire-resistant materials. Using artificial intelligence to forecast events early and communicate them to large populations will also be effective towards climate resilience.

Another effective method towards climate resilience is prioritizing preservation of natural or green infrastructure over creating gray (man-made) infrastructure. This means restoring natural ecosystems such as wetlands, marshes, and floodplains by planting vegetation, which reduces the risk of flooding.

Many of these plans require significant financial contribution beyond what is outlined in current policies, with the OECD estimating that about \$6.3 trillion is needed each year until 2030. This mostly contributes towards providing resources to low and middle income countries, who often suffer a lot more from climate change. Poorer communities lack infrastructure because they are overlooked by the government and lack the political power to speak for themselves. As a result, they are zoned into polluted areas or places that are more at risk for damage from climate change. Resources that can be provided to these communities include a stable water supply, communication networks, consistent energy, and easy access to transportation. Community-based networks will be especially important in reaching these places and getting them the resources they need.

Asia

In Asia, the largest issue when it comes to climate-resilient infrastructure is financing. Innovative financing techniques are needed, as almost \$1.7 trillion per year is needed in order to meet sustainable development goals in 2030. The lack of finances is partially due to the difficulty in attracting private investment, because private sectors see climate investment as high risk with little return. Countries such as Indonesia and Malaysia have had success with Islamic finance in the form of green sukuk, which is a type of financing that abides by Islamic principles and is dedicated only towards environmental objectives. The alignment among ASEAN countries has also been beneficial for financing. Another solution could be to partner with banks or practice blended finance. The Economic and Social Commission for Asia and the Pacific has helped create public-private partnerships, generate more investments, and encourage designing infrastructure.

Africa

In 2022, a devastating flood that occurred in the region encompassing the second-largest economy in South Africa led policy-makers to rethink the readiness of Africa for climate disasters and other environmental changes. The regions unpreparedness demonstrated the lack of attention climate resilience has been given in South Africa, partially due to underinvestment. Africa is especially vulnerable to climate change because of its low level of development, adaptability, and response to climate shocks. However, since most of the infrastructure in Africa has not yet been built, there is opportunity to take advantage of this by implementing climate-resilience into future plans. Within these future plans, new construction standards, especially under civil engineering, must be undertaken, as well as updated training curricula for infrastructure engineers.

A key factor within these future plans will be investment in road improvement. Roads are a critical means of expanding accessibility to schools, hospitals, jobs, and more for rural Africans that lack access to urban installments. Ensuring that roads are resilient towards climate change can minimize the number of disruptions experienced by those using the roads. It can also make sure that the funding put towards building roads is maximized. An ideal road design must take into account a variety of climatic factors including higher temperatures, rainfall, and flooding. An adequate maintenance system can also help decrease the amount of time being spent on fixing roads so that their use is maximized.

Rising sea levels in Africa have already begun to affect coastal infrastructure through erosion. Mangrove swamps, which are notable for their ability to regulate the climate and stabilize the shoreline have been destroyed. Natural disasters such as hurricanes and cyclones are becoming more prevalent, causing nations to lose billions in infrastructure. The tourism industry has also taken a severe hit, with coastal tourist facilities being unable to remain open. In order for Africa to preserve its tourism economy and infrastructure, climate resilience must be prioritized in the coming decades.

An example that is already being implemented is the Abidjan-Lagos road corridor, a highway upgrade that combats erosion for 1000 km of road along the West African coast. Another example is the Next Generation Africa Climate Business Plan, which sponsors trust funds that set up assistance to governments for building climate resilient infrastructure. Overall, despite its previous underpreparedness regarding climate disasters, Africa has recently acquired significant funding from the European Investment Bank and Africa Finance Corporation among others specifically targeted towards implementing resilience in the design and development of infrastructure. These plans will also improve digital connectivity in Africa, which can streamline responses to climate change.

Latin America

In Latin America, the Caribbean region is most susceptible to extreme weather events including hurricanes and storms. Flooding has led to frequent road collapses, which coupled along with poor waste management, can have drastic consequences. Furthermore, the region has limited conversations about climate resilience, leading to a lack of preparedness. Desertification has resulted in the loss of agriculture, and soil that cannot retain water which can cause flooding. The rise of informal settlements also makes it challenging to monitor protection for communities. Finally, the tourism industry is another essential component of the Latin American economy that must be protected.

Potential solutions include increasing flexibility by pursuing nature-based solutions like rain gardens or floodable gardens that manage excessive rainfall. Utilizing on-site power generation can also be useful, rather than hydroelectric power, which is affected by drought. Climate files are also a viable way to gather previous information about a region to better anticipate future climate challenges.

Europe

More investment is being put towards various means of increasing climate resilience in Europe, including adaptive building codes, early warning systems, and increased economic incentives. There is also an emphasis being put on nature-based solutions, included in 91% of climate-resilience plans. Countries aim to prioritize minimizing a negative effect on the environment when expanding climate resilient infrastructure. Transport infrastructure is a sector that has been addressed by several projects in Europe. Decreasing transportation vulnerability and increasing adaptability to unseen events ensures that critical systems such as inland waterways and land transport remain intact. Smooth transport on the land and water is critical for the passage of people and products. Overall, much of Europe's objectives lies in building off of their current infrastructure to make it more sustainable and further adapted towards withstanding disruption.

While each region is susceptible to a variety of different climate disasters, similar policies may be implemented to incorporate more rigorous policies to build resilient infrastructure. In addition to creative funding ventures and collaboratively funded projects, research must be done to ensure that the resources are being utilized in the most cost-effective way possible. This can take on new forms with the rise of technology that allows for mass data collection and analysis like never before.

Questions to Consider

- 1. How does communication impact the success of climate-resilience infrastructure and how can it be improved upon?
- 2. What types of communities are most susceptible to climate disaster and how can they best be supported?
- 3. How do we prevent lower-income communities from being zoned into riskier areas?
- 4. What are some ways redundant systems can be implemented?
- 5. How can we increase the cost-effectiveness of implementing climate-resilient infrastructure?
- 6. What are some effective ways to finance the construction of infrastructure?
- 7. How can private investments in climate-resilient infrastructure be incentivized?

Additional Resources

https://www.eib.org/attachments/lucalli/20230142 climate risks for latin america and the caribbean en.pdf

https://www.oecd.org/en/publications/infrastructure-for-a-climate-resilient-future_a74a45b0en.html

https://wwfeu.awsassets.panda.org/downloads/wwf-position-paper-on-climate-adaptation.p df

https://ec.europa.eu/newsroom/cipr/items/722278/en

https://www.weforum.org/stories/2023/09/designing-climate-resilient-infrastructure-lessons-f rom-disaster/

https://www.eib.org/en/press/all/2025-106-eib-backs-africa-finance-corporation-usd750-milli on-climate-resilient-infrastructure-fund

https://news.climate.columbia.edu/2024/07/22/the-case-for-climate-resilient-infrastructure/#: ~:text=Climate%2Dresilient%20infrastructure%20is%20infrastructure,to%20recover%20quickl y%20after%20disruptions.

