

## Graduate School Statement of Purpose

### Prompt:

Your personal statement should:

- Explain your motivation for undertaking the programme(s)
- Describe your academic interests, strengths and background relevant to the programme(s)
- Outline your ambitions and/or research interests
- Include other relevant information, such as additional reading or research, work or other relevant experiences that have informed your decision to apply for the particular programme(s)
- Highlight areas of specific interest within the programme(s) you have applied for at LSE.

Your personal statement should be typed and no longer than two sides of A4 paper. There is no fixed word limit, but we expect this to be no longer than 1,000 - 1,500 words.

I often ask myself the question, “What academic area inspires me, so much so that I am willing to face difficulties and challenges to pursue my knowledge?” As a first-generation female college student from SW China, I have searched for answers in many places, from my home country and then in America, where I am enrolled in college, from classrooms to internships to research studies. Finally, I found my answer: I am determined to channel my passion for geography and economics into the field of environmental management and energy resources. I am eager to excel in graduate school and make a difference in the global community.

My interest in geography developed early during middle school. I obsessed about maps of the world, imagining the sweeping of winds, the movement of clouds, and the shaping of landscapes. Later, my collegiate studies cultivated in me a strong interest in economics. Courses such as Game Theory, Industrial Organization, and Public Finance showed me another rational perspective from which to understand the world. So does geography, which is another subject that exquisitely integrates natural science and humanity. Both subjects inspire me and shape my outlook of the world with the evidence and empathy that I seek and value.

It was at Ohio Wesleyan University that I discovered these fascinating cross-disciplinary connections. I enrolled in an Environmental and Natural Resource Economics course, in which I learned to use economic methods for modeling energy allocation and environmental protection. While in an Energy Resource course in the Department of Geography, we examined the distribution, consumption, utilization, and management of natural resources. In addition, in a course of Geography Department on the Geographies of the Global Economy, we discussed the economic phenomena that shape and define landscapes of globalization, while simultaneously discussing tactics to mitigate environmental problems in a Public Finance course. I studied deforestation and urbanization through remote sensing, while also generated drive time maps for business analysis on ArcGIS. Throughout my undergraduate study, I have been obsessed with the interdisciplinary connections between geography and economics.

To better understand my own interests, I sought out opportunities to practice what I had learned in theory. In the summer of 2016, I had an internship in the Science Department of the Nature Conservancy Beijing Office. That was my first real contact with the field of environmental management. In their science department, I worked to provide support to active projects. I helped to complete the China’s protected area database, the China Eco-Function Regionalization, and the Environmental Management Knowledge Base. I became skilled with ArcGIS for data editing and processing, producing shapefiles, raster features, and maps for these reserved areas. By working with many professionals of multiple environmental management projects, I was exposed to many new concepts such as forestry and wetland carbon sink, climate change, watershed management, natural infrastructure construction in cities and so on. These experiences broadened my horizons and exposed me to infinite possibilities. I began to understand the practical applications of environmental management, and I truly enjoyed working in this field.

In the following semester, I conducted my independent study with my geography professor on exploring the relationship between Arctic Oscillation and an extreme cold weather event in southeast China.

The idea for this Independent Study Project originated from the Arctic cold in Southeast China during January of 2016. In this research, I generated NCEP/NCAR reanalysis data to identify the spatial-temporal anomalousness during the cold weather outbreak. I also collected and processed automated weather station data and AO index. By statistical analysis of those data, I sought to identify the influences of the Arctic Oscillation at various time scales on the observed cold air extremes over Eastern China. Investigation of this spatial-temporal relationship was expected to help explain propagation and the migration of extreme cold air over this region, and ultimately, to assist in the development of more precise forecasting of extreme cold wave events, and to enhance the ability and precision of our predictions of colder winters in Eastern China.

I presented this work at the Ohio Wesleyan University student symposium in April, 2016. After further development of this research, I presented it at the annual conference of the American Association of Geographers in Boston in March of 2017, and the annual meeting of the East Lakes Division of the American Association of Geographers in October of 2017. Based on feedback from those meetings, I will write an integrated undergraduate thesis on this project for Departmental Honors in Geography during spring semester of 2018. This experience not only enriched my scientific research experience, but also strengthened my knowledge of climate and climate change. While engaged in this independent study, I developed a strong interest in studying climate change.

Then, in the summer after my Junior year, I was selected for the Summer Science Research Program (SSRP) at OWU to work with Dr. Amador Rowley, concerning the meteorological variability across the west central Greenland ablation zone. In this research, I collected atmospheric data, large-scale synoptic data, and the Greenland Blocking Index (GBI). I processed the collected data through Matlab to assess how atmospheric indices influence local climate variables and influence circulation patterns further on the total melt lake area in the Jakobshavn Ablation Region (JAR) in Greenland. I presented this research at the OWU SSRP Symposium in September, 2017. During this experience, I not only enhanced skills with data analysis and modeling software, but also experienced the life of academic research. I made an important discovery: I am deeply fulfilled by research, and I want to devote myself to conducting research.

My passion surrounding climate and energy economy compels me to investigate. In January of 2018, in my travel learning course to Costa Rica, I am going to study hydropower energy in subtropical developing countries. Furthermore, climate change and energy crises are challenging not only my home country, China, but also the whole human society. Contradictions between social economic development and environmental protection are becoming more serious. Based on my interest in climate change and energy economy, taking on the goal of understanding, and hopefully resolving, these environmental problems, I want to explore the causes and impacts of climate change on large scale. Then, I hope to generate tactics to mitigate climate change from the perspective of energy economy.

Enrollment in the graduate program in Environmental Economics and Climate Change Program would offer me an opportunity to bring my economic and geographic perspectives into future study. The academic rigor, diverse courses, and the dedicated and distinctive professors convince me that LSE is the best place for me to achieve my goal of becoming a qualified researcher and professional in the field of environmental management, and prepare me to pursue my PhD in the foreseeable future. I am eager to embrace all challenges and devote myself to protecting our lovely home, planet Earth.