**Indian Monsoons as an Interdisciplinary Subject**

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One of the most intellectually stimulating unplanned moments of this trip so far occurred on one of our days in Powai. Scattered throughout the conference room, we discussed issues from the caste system to views of the rich and poor in the United States, and created a conversation that provided a turning point in the dialogue in bringing the group together both emotionally and academically. While the conversation as a whole was extremely intriguing and I could probably write an entire paper about that alone, one moment in particular sparked my interest.

During this conversation or soon thereafter, Devashish brought up for the first time his belief that one must be well-rounded in many disciplines to become an ideal member of society. He regrets having spent so much time in his undergraduate career focusing on science only. I agree completely with this concept, but I think it goes further. It led me to question whether one could truly call themselves an expert in a topic without understanding it from the viewpoint of science or humanities. Throughout the course of this dialogue, I have begun to understand that climate change, and specifically the Indian monsoons, are far from an issue of "hard science" alone. In fact, the Indian monsoons affect all aspects of India: history, religion, culture, agriculture, politics, education, business, and anything else humanly imaginable. While it may seem to affect some areas more than others, the climate pattern undoubtedly shapes life in India more than most other forces.

While the existence of the monsoon has been known for many years, the scientific details were not known until my parents' lifetime when more scientific tools become readily available. We learned much about the hard science behind the Indian monsoons during our visits to IIT-Bombay, hearing from professors and Sahana's peers. The monsoon develops in the northern Indian ocean and are pushed toward India with a northeasterly wind. The high humidity we experienced in the bulk of our visit to India can be explained as pre-monsoon weather—the atmosphere bulging with water vapor, releasing occasionally in pre-monsoon showers, holding out for months of heavy rain showers which feed the bulk of India's water supply. From what I have understood, it is unclear exactly how climate change might

affect the monsoon. Possibilities for change include fluctuations in rainfall, flooding, and delays. Through the first war game, many of our groups learned about the effects of the monsoon.

The agriculture sector, affecting a huge proportion of the Indian population but only about one fifth of the Indian GDP, seems to be affected most harshly by the monsoons. Climate change's effects will also have a great impact on farmers as the timing and intensity of rainfall can drastically affect crop yield. Indian farmers rely on the monsoon for their livelihoods, and therefore should make one of their top priorities preparing for the potential changes in the monsoon over the next several decades. Indian farmers rely very heavily on rainfall and tend to do well when there is plenty of rainfall and have miserable yields when there is a drought. Farmers should be prepared for drought and should be conserving water for irrigation throughout the year and should avoid wasting water in irrigation efforts.

My sector in the first war game, water, was also very heavily affected (and perhaps most affected, technically) by monsoons. As the monsoons provide a huge amount of rainfall for the entire year, it is vital that the Indian people work to save the water for drinking and to keep the water that they have clean. Water pollution is one of the greatest problems devastating the Indian community and it will take great efforts to clean up the water, especially in cities. While water shortages and disparities are a problem everywhere in India, city dwellers drink from more polluted rivers and are affected more directly by the effects of climate change on the monsoon.

The 2005 Mumbai floods are a huge example of how a population can be devastated by the water of monsoon rains and very likely climate change. These floods devastated the entire city, but most prominently the poorest. Throughout our war game research, we learned that the most vulnerable populations are affected the most in almost every natural catastrophe, and the floods are no exception. Slum dwellers living on the edge of the Mithi River lost their lives and their livelihoods and had little to no infrastructure to help pick them back up.

The history of India and Hinduism contain many different cultural understandings as well. Indian gods have been looked to during water shortages and legends about the monsoons have been passed down through generations. Not only is the monsoon deeply engrained in the Indian culture religiously and

historically, but even the foods that Indians eat are linked to the monsoon. The monsoon and climate of India affect the types of foods which have been eaten for thousands of years on the subcontinent.

The Indian people are affected by monsoons in every aspect of their lives. From ancient history to modern times, it has controlled their everyday existence. While the recently discovered science behind the monsoons consumes many, the history and culture behind the unique weather pattern is centuries old and consumes the Indian culture as a whole. These courses taught me the basics I needed to know about the monsoons as well as the deeper contexts behind the event, which have combined given me an understanding of India that I wouldn't have had on another dialogue.