



Asia Cooperation Dialogue (ACD)

MUNUC 34



TABLE OF CONTENTS

CHAIR LETTER.....	3
HISTORY OF COMMITTEE.....	5
TOPIC A: MIGRANT WORKERS.....	6
Statement of the Problem.....	6
History of the Problem.....	14
Past Actions.....	21
Possible Solutions.....	23
Bloc Positions.....	25
Glossary.....	28
Bibliography.....	30
TOPIC B: INFRASTRUCTURE.....	35
Statement of the Problem.....	35
History of the Problem & Past Actions.....	46
Possible Solutions.....	51
Bloc Positions.....	56
Glossary.....	59
Bibliography.....	60

CHAIR LETTER

Dearest Delegates,

It is my privilege to welcome you to Model United Nations at the University of Chicago! I am the Chair of the Asia Cooperation Dialogue within the Specialized Agencies of MUNUC.

I am a second-year student at the University of Chicago concentrating my studies in Economics and Anthropology. This will be my second time serving as a Chair for MUNUC. I have also served as an Assistant Chair for the Legal and Experimental committees last year. This year, I am also serving as the Chair for the University's collegiate-level conference, ChoMUN.

Outside of Model UN, I am interested in innovation and marketplaces around the world. I am involved in entrepreneurship and research roles at Chicago. This past summer, I interned for the Polsky Center—our startup accelerator on campus—and assisted the Department of Computer Science in a wireless connectivity research project. I also serve as an elected representative for the Inter House Council which advocates for student wellness and organizes social events for the College. In my free time, I am a member of the campus Hillel and Swing Dance Society. This upcoming summer, I will work as an Analyst for HSBC—a financial services firm with a significant Asia-Pacific presence.

The Asia Cooperation Dialogue is a relatively obscure international forum that weaves together major institutions in a continent-wide council. Delegates will represent countries of varying hard and soft power. The ACD is a voluntary association, and it is up to the good faith of delegates to forge compromise and construct opportunities. As such, the respective delegations will work to support businesses and create opportunities.

In this conference, delegates will engage with one of two topics that play pertinent roles in economic development and human rights in Asia. Both infrastructure development and migrant worker rights are issues majorly debated in international bodies. In the coming weeks, you will engage with these topics and grapple with possible resolutions.

In our four short days together we will cover a lot of ground. It is my expectation that each delegate **thoroughly** reads the entirety of this background guide and takes notes as appropriate. Additionally, delegates should conduct country-specific research in writing **required** position papers (1-2 pages double spaced).

I understand that participating in MUN can be intimidating, but please know that the dais is here to support you. I know that if you put your best effort forward, you will grow as a scholar. I will work to make this a fun and meaningful experience for each of you.

The foremost exercise of this committee is to critically inquire into matters of global tenor through formal debate. I am an outspoken believer in the pedagogical mission of MUNUC and the University of Chicago at large. I aspire to excite you in these themes as a committee executive. I have confidence that each of you will grow if you approach this conference with good faith and curiosity. If you have any questions or comments about your position paper, conference, or the University of Chicago, I am glad to talk.

Best,

Aaron

Chair, Asia Cooperation Dialogue (ACD)

HISTORY OF COMMITTEE

The **Asia Cooperation Dialogue (ACD)** is a forum of nations organized to promote mutual cooperation and development in Asia. Founded in 2002, it is the first regional body to encompass the entire Asian continent. The ACD is a conglomeration of several regional groups including the **Gulf Cooperation Council**, the **Association of Southeast Asian Nations**, and the Eurasian Economic Union, among others. With a particular focus on economic development, trade and poverty are issues often considered by the delegations.

This is a Specialized Agency committee in Double Delegation format. The committee will not utilize any special mechanics. No prior background on trade agreements or economics is expected from delegates.

The ACD is structured to provide each country identical voting power regardless of economic, diplomatic, or military position. This comes with the understanding that countries are engaging in good faith to approach common issues from their respective histories. The ACD is not a governing agency. It only exists for the mutual cooperation of the participating delegations and has no ability to force participation. This means that no resolution they pass is binding or expected to be enforced by the agency itself. Despite this, member states can mutually agree to cooperate for net benefit.

TOPIC A: MIGRANT WORKERS

Statement of the Problem

Overview

There are currently upwards of 270 million migrant workers globally and nearly 50 million international migrant workers in Asia.¹ Migrant workers are people understood to “travel for a job” and they account for around 3% of the world’s total population.² Migration trends are important in the modern global economy because they fill labor demands that cities and nations cannot fill domestically. Asia is no exception—migrant workers are more commonplace than in other regions in many industries.³ Workers usually leave their hometown for better job opportunities and they send their earnings back to their families.⁴ Typically, the wages for migrant workers are lower than the amount paid to their local counterparts but higher than what they can earn back home. The benefit exists for both sides of the transaction in theory—workers get preferable employment and employers are able to save money. In practice, though, the situation of migrant workers can be much more complicated and disheartening, which will be discussed at length in this Background Guide.⁵

Migrants can travel both within their own countries and abroad depending on circumstances. Many workers travel domestically, especially in countries with a big enough labor market, such as India and China. With the rise of globalization, however, workers are no longer confined to their region. It is common to see Asian workers in Europe and Oceania, among other destinations. While specific country-to-country migration data is sparse, general trends indicate that lower income countries send their labor supply to wealthier countries. Due to the global movement of workers, examining only Asia would negate the premise of the global labor market. As such, this Background Guide will

¹ “Labour Migration Statistics (Labour Migration),” International Labour Organization, accessed December 16, 2021, <https://www.ilo.org/global/topics/labour-migration/policy-areas/statistics/lang--en/index.htm>.

² Ibid.

³ “Migrant Workers | Ethical Trading Initiative,” accessed December 16, 2021, <https://www.ethicaltrade.org/issues/migrant-workers>.

⁴ “Migrant - Dictionary Definition,” Vocabulary.com, accessed December 16, 2021, <https://www.vocabulary.com/dictionary/migrant>.

⁵ United Nations Department of Economic and Social Affairs Population Division, *International Migration 2019: Report.*, 2019.

also observe cases around the world. Particularly, the Americas and Oceania play a key role in Asian migration. They should be studied as part of a basis for strengthening your perspectives.⁶

Migrant workers are mostly employed in construction, agriculture, and domestic jobs. In the US, temporary workers from Latin America have proven “essential” to farm production in border states—this is despite the fact that millions are illegally employed.⁷ Enjoying significant growth driven by a global economic prominence of the region, Gulf States are experiencing labor shortages, and their domestic populations cannot keep up with the growing labor demand. To solve this problem, nations such as the State of Qatar, the United Arab Emirates, and the Kingdom of Saudi Arabia have brought in millions of construction workers from South and Southeast Asia.⁸ Meanwhile, growing Asian and African states have drawn upon each other for domestic laborers to perform everyday household work.⁹

These examples are displayed to note that the labor market has proven an ability to meet the global economy’s manifold needs for worker supply. Meanwhile, geography still can be a barrier to this marketplace. Smaller countries that are geographically isolated such as Fiji hardly engage in this facet of the global economy. Therefore, delegates should keep in mind the variations in the circumstance of migrant workers between Asian countries.

While great disparities exist, concerns regarding the mistreatment of workers are shared by all. Issues of human trafficking, economic coercion, fraud, bondage, physical abuse, and discrimination are all reported as commonplace. These issues have come under increased condemnation from human rights organizations and democracies. International organizations have attempted to regulate these practices, but the exponential growth of migrant workers has left many institutions ineffective. Often there are not adequate institutional protections due to poverty and black-market arrangements. Developing and developed nations alike are grappling with labor shortages, human

⁶ “Labour Migration Statistics (Labour Migration).”

⁷ “Farmworkers, Mostly Undocumented, Become ‘Essential’ During Pandemic - The New York Times,” accessed December 16, 2021, <https://www.nytimes.com/2020/04/02/us/coronavirus-undocumented-immigrant-farmworkers-agriculture.html>.

⁸ David Mednicoff, “The Legal Regulation of Migrant Workers, Politics and Identity in Qatar and the United Arab Emirates,” accessed December 16, 2021, 29.

⁹ Kali Robinson, “What Is the Kafala System?,” Council on Foreign Relations, March 23, 2021, <https://www.cfr.org/background/what-kafala-system>.

rights violations, and lack of judicial oversight. These disturbing situations give rise to the important questions for this committee. How can migrant labor evolve from exploitation to global cooperation? What actions can be taken to ensure that the intrinsic rights of the person are respected in international labor? Whose responsibility is it to ensure workers are protected?

Economic Exploitation

Workers travel internationally because of preferable employment options abroad, compared to the opportunities in their own countries. Often this involves higher wages to send home to their family. With higher income, their parents can retire rather than keep working at an old age, their living conditions can be improved, or their children can receive better education. This is the same logic that applies with wage competition for jobs. While working abroad, laborers often never travel home to see family until the end of their contract, which can last for several years.

Although migrant workers can earn more money in places far from their families, their work conditions are by no means favorable. In fact, they face considerable challenges, many of which are economic. First, these workers fill a critical labor shortage for many industries where the cost of domestically-sourced labor is prohibitive. This means that employers usually pay migrant workers far less than they pay local employees. Sometimes, the pay is below the local minimum wage requirement, and employers cut or withhold wages from migrant workers. For example, one 2017 Australian survey found that roughly half of all migrant workers are paid below minimum wage.¹⁰

Second, migrant workers usually enjoy very little protection of the social safety net due to their foreign status. In Australia, migrant workers are not eligible for the social services dedicated to citizens such as most social welfare payments and family support networks.¹¹¹²

¹⁰ Bassina Farbenblum, "Wage Theft in Australia: Findings of the National Temporary Migrant Work Survey," Migrant Justice Institute, November 20, 2017, <https://www.migrantjustice.org/highlights/2017/11/14/report-released-wage-theft-in-australia-findings-of-the-national-temporary-migrant-work-survey>.

¹¹ Umeya Chaudhuri and Anna Boucher, "The Future of Enforcement for Migrant Workers in Australia" (Sydney Policy Lab, University of Sydney, March 2021), <https://www.sydney.edu.au/sydney-policy-lab/news-and-analysis/news-commentary/the-future-of-enforcement-for-migrant-workers-in-australia.html>.

¹² Jennifer Wilson and Belinda Wright, "Australia – COVID-19: Considerations for Managing a Migrant Workforce in Trying Times - KPMG Global," KPMG, March 30, 2020, <https://home.kpmg/xx/en/home/insights/2020/03/flash-alert-2020-130.html>.

Facing these restrictions, migrant workers have little bargaining power despite their critical function. This is mainly because of the huge supply of migrant labor. Employers mistreat their laborers with the understanding that they can be easily replaced.

Aside from employers and government regulations, recruitment agencies are another source of exploitation. Millions of workers find employment through recruitment agencies which often engage with predatory practices and take unfair advantage of recruited workers. These firms are international groups that source laborers for clients in wealthier countries and face little market regulation. They organize the logistics of employment, arrange immigration visas for workers, and charge placement fees to them. If the fees are not paid off, the recruitment agency cancels their employment or garnishes wages. Domestic workers—those who perform household work—are especially vulnerable to the exploitation of recruitment agencies. Additionally, think tanks have reported instances of abuse and sexual violence from the agencies. These firms have demonstrated limited regard for human safety. Many times children below working age are recruited and employees are restricted in their freedom of movement.¹³

¹³ Daniel Costa and Philip Martin, “Temporary Labor Migration Programs: Governance, Migrant Worker Rights, and Recommendations for the U.N. Global Compact for Migration” (Economic Policy Institute, August 1, 2018), <https://www.epi.org/publication/temporary-labor-migration-programs-governance-migrant-worker-rights-and-recommendations-for-the-u-n-global-compact-for-migration/>.



Figure 1. Domestic Migrant Worker Pictured¹⁴

Physical and Emotional Abuse

In addition to economic exploitation, some migrant workers also face physical and emotional abuse from their employers. This is especially true for domestic workers due to their highly informal and unregulated work setting. Domestic workers are contracted to assist with domestic tasks: meal preparation, cleaning, childcare, and other miscellaneous familial roles. This is common in many parts of Asia and Latin America. Among upper class families in Asia, household laborers are commonplace. Singapore alone has over 250,000 domestic workers for a developed city-state of 5 million people.¹⁵ As of 2010, a majority of domestic workers are young women sourced from poor regions of Asia who were expediently trained to be household workers. The recruitment agencies funnel them through a training program and then send them off to families.

Domestic workers therefore work in a very informal and private setting and they spend a lot of time with the family they work for. Yet, they usually do not have the chance to choose which household

¹⁴ GUANYINMIAO, "Reliance On Live-In Domestic Workers Reflects Deeper Socio-Economic Malaise," *Guanyinmiao's Musings (Archived: July 2009 to July 2019)* (blog), May 30, 2016, <https://guanyinmiao.wordpress.com/2016/05/30/reliance-on-live-in-domestic-workers-reflects-deeper-socio-economic-malaise/>.

¹⁵ "Singapore: Foreign Domestic Workers 2020," Statista, accessed December 16, 2021, <https://www.statista.com/statistics/953137/singapore-foreign-domestic-workers-employed/>.

they want to work for. Having zero control over their placement and no institutional screening measures in place, workers are placed to live with a family they have never met before. Families simply sign up for workers and receive them with no background screening or elaborate assessment of the living conditions. This can cause huge stress and anxiety if a family proves problematic.

On top of the emotional challenges, some employers physically abuse migrant laborers as punishment for perceived inadequacies in their work. There have been several reports of employers beating and starving their workers in Singapore. One extreme instance was in 2021, when a Singaporean woman beat and starved her Burmese maid until she died.¹⁶ This garnered national press coverage and she was ultimately sentenced to 30 years in prison.¹⁷ However, it should be noted that smaller and more infrequent abuses go wholly unreported in Singapore but are understood to be common occurrences.¹⁸

Ineffective Reporting, Monitoring, and Enforcement Mechanisms

Internationally, there is a broad governmental disregard for worker protections. A recent University of California, Los Angeles study found that major labor markets in China, India, South Korea, and Mexico, et al., disregarded the human rights of migrant workers even with protections in place. Notably, this is not because of an absence of relevant laws or policies. Instead, this is because government institutions are not capable of effectively enforcing these policies and/or there is a broad disregard for worker protection laws.¹⁹

Before law enforcement can step in, exploitations or abuses have to be identified. It turns out that this alone is a significant challenge for migrant workers. Often, exploitations or abuses go unreported to legal authorities. For domestic workers, families employing them have the power to terminate the contract at any time and have them deported. The threat of this economic disruption has led scholars to conclude that it stops workers from reporting perceived smaller abuses, for if a

¹⁶ "Singaporean Who Tortured and Killed Myanmar Maid Gets 30 Years in Jail," *BBC News*, June 22, 2021, sec. Asia, <https://www.bbc.com/news/world-asia-57563235>.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Justin McBride and Chris Tilly, "Organizing Informal Workers to Win" (UCLA Institute for Research on Labor & Employment, January 2021), https://irle.ucla.edu/wp-content/uploads/2021/03/Organizing-Informal-Workers-to-Win_Lessons-from-Informal-Domestic-and-Construction-Workers-in-Six-Countries.pdf.

worker's contract is terminated, they will lose their job and be deported. In Singapore, despite regulation pledging strict penalties for employers who assault workers, and protections for overwork, reports continually contrast government claims. A western survey from 2017 found that 60% of domestic workers are exploited in one form—monetary or through abuse.²⁰ That said, the ones that are discovered are harshly punished. Earlier in 2021, a Burmese migrant worker maid was tortured and ultimately murdered. The family responsible received a 30-year prison sentence in Singapore.²¹ This again demonstrates that the challenge lies in identifying the abuses.



Figure 2. Singapore Construction Migrant Workers²²

Loss of Local Talents

Researchers have observed that workers migrate to countries based on the income level of the host. This great shift in human capital around the world has damaged the developmental capacity of low-income countries. Especially with losing out on skilled laborers, developing countries are placed at a

²⁰ Katie Hunt and Ben Westcott, "Most Singapore Foreign Domestic Workers Exploited, Survey Says," CNN, November 28, 2017, <https://www.cnn.com/2017/11/28/asia/singapore-domestic-helpers-maids/index.html>.

²¹ "Singaporean Who Tortured and Killed Myanmar Maid Gets 30 Years in Jail."

²² Jnzl's Photos, *Migrant Workers*, January 5, 2014, photo, January 5, 2014, <https://www.flickr.com/photos/surveying/11770285646/>.

comparative disadvantage from temporary migration.²³ While migrant workers have acted as a counterweight to many aging countries, it comes at the cost of their homeland's economic growth. In China for instance, their domestic migration has led rural regions to be left without a talent pool, which has hindered the development of these regions.²⁴ As a consequence, these towns are losing residents both because of worker migration and lack of opportunities.²⁵

Solutions need to recognize how economies have formed around these practices. Governments have often proven ineffective alone, especially in impoverished regions. With that in mind, consider how international bodies and non-governmental organizations can play a role in managing these circumstances. Institutional reform or major intervention is required to resolve such a pervasive crisis. But additionally, businesses and employers need to adjust their preconceived notions for the rights of workers.²⁶ Additionally, the impact of legislation surrounding citizenship on migrant workers should also be taken into consideration. For example, migrant workers in wealthy countries such as Singapore and the United Arab Emirates almost never have a path to permanent residency or citizenship.²⁷

²³ David Mednicoff, "The Legal Regulation of Migrant Workers, Politics and Identity in Qatar and the United Arab Emirates," accessed December 16, 2021, 29.

²⁴ Ziwei Qi, "An Overview of Rural to Urban Migration in China and Social Challenges," *Migration Letters* 16, no. 2 (April 5, 2019): 273–82, <https://doi.org/10.33182/ml.v16i2.664>.

²⁵ Ibid.

²⁶ Benjamin Harkins, "Wage Theft: The Missing Middle in Exploitation of Migrant Workers | OpenDemocracy," openDemocracy, January 21, 2021, <https://www.opendemocracy.net/en/beyond-trafficking-and-slavery/wage-theft-missing-middle-exploitation-migrant-workers/>.

²⁷ Michael Heath and Adam Majendie, "The World's Biggest Immigration System Offers Lessons for a Disrupted World," *Bloomberg.Com*, October 28, 2021, <https://www.bloomberg.com/features/2021-australia-immigration/>.

History of the Problem

Migrant workers are an old theme. Records extended back before the Roman Empire on people moving for employment. The first migrants often sought to supply the demand in the urban area.²⁸ When cities first industrialized, workers were needed from rural areas to meet the labor needs of factories. As the industrial revolution led to a global economy, economic incentives both on the corporate and governmental level have led to a gross disregard for migrant worker protection in many circumstances. Growth has been too profitable for anyone to want to slow down. Neither businesses nor governments wanted to stop this “good” thing, and as a result abuses have been often overlooked.

SDGs and Migrant Workers

In 2015, the United Nations included the protection of migrant workers in Target 8.8 of their Sustainable Development Goals (SDGs).²⁹ This body realized the mistreatment of migrant workers is untenable and cannot continue. It also set out goals to ensure the health and respect of these individuals over the coming years. Ultimately, this is part of their grander scheme of improving healthy economic development. The UN Department of Economic and Social Affairs has also explicitly called for measures to prevent children from migrant labor schemes.³⁰

Asia Cooperation Dialogue and Migrant Workers

To understand the Asia Cooperation Dialogue’s role in migrant worker protection, it is important to understand its structure. As discussed in the History of the Committee, ACD has been created as a bridge between multiple bodies that specifically address migrant workers. This committee bridges the interests of different organizations, including ASEAN, the Gulf Cooperation Council, and the

²⁸ Ray Jureidini and Said Fares Hassan, *The Islamic Principle of Kafala as Applied to Migrant Workers: Traditional Continuity and Reform* (Brill, 2019), https://doi.org/10.1163/9789004417342_007.

²⁹ United Nations, “Goal 8 | Department of Economic and Social Affairs,” United Nations Department of Economic and Social Affairs Sustainable Development, 8, accessed December 16, 2021, <https://sdgs.un.org/goals/goal8>.

³⁰ Ibid.

Shanghai Cooperation Organization. As such, it would be helpful to observe how these bodies have each approached the issue of migrant workers in their respective regions.

Shanghai Cooperation Organization

This section will focus on two countries: China and India. In China, there has been a generational migration from rural and semi-rural regions. Young people are moving to urban hubs for industrial employment, whereas their parents stay in rural regions. This shift began in the 1980s when there was a loosening in travel restrictions within the country.³¹ Rural workers supplied the labor needs for the first global cities of China. Especially within urban hubs, over 30 million migrants filled the roles described as the “4 D’s:” dirt, drain, danger, and disgrace.³² The rural workers played a vital role in China’s development even while taking on what was socially undesirable.³³

By 2004, these migrant workers mostly worked in construction and manufacturing, and gradually dominated these major economic industries in China as the country entered the economic boom of the 2000s.³⁴ According to a 2000 Census by the Chinese government, over 80% of all construction jobs in the country and 68% of all manufacturing were filled by migrant workers.³⁵

However, these migrant workers faced serious issues across the board. This included a lack of access to welfare programs that urban residents received, poor housing conditions, poor health and sanitary conditions, and a general lack of quality public education.³⁶

In addition to challenges in big cities, migration has led to unequal development between urban and rural areas. Take education as an example. Urban China has developed into an advanced economy with a quickly educating population. Wealthy cities such as Shanghai and Beijing have among the highest marks on the PISA examination (an international educational benchmark exam) for

³¹ Li Shi, “Rural Migrant Workers in China : Scenario, Challenges and Public Policy,” *ILO Working Papers*, ILO Working Papers (International Labour Organization, 2008), <https://ideas.repec.org/p/ilo/ilowps/994204063402676.html>.

³² Ibid.

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid.

children's performance in Math, Science, and Reading.³⁷ These scores even outperform the US, South Korea, and Japan—three innovation powerhouses in terms of research and development.³⁸ This demonstrates how China's major cities have become developed.

But this development is not equally shared by all. Urban cities have enjoyed developed status, while rural regions are overlooked in favor of supporting tech centers in urban hubs. These areas have become impoverished and deserted by younger generations. Small towns in rural China have lost out on a worker pool to sustain their economies and maintain population growth. Meanwhile, old people are left there to age away with minimal support.³⁹

China is a destination for international migrants as well, and, unfortunately, foreign workers are facing significant challenges. According to a survey conducted by Justice Centre Hong Kong, 95% of the region's domestic workers from the Philippines and Indonesia had experienced some form of exploitation or forced labor.⁴⁰ Such a widespread disregard for human rights highlights the extreme situation facing migrant workers. This may be attributed to the fact that Hong Kong has a lower minimum wage for non-citizens. Additionally, physical and sexual abuse have been frequently reported. One report in 2013 mentioned that a domestic maid was burned with iron and beaten with a bicycle chain.⁴¹ Beyond that, workers face many of the same issues as found in other Asian migrant destinations.

Let's turn to India. In addition to international migration, Indian workers move from the countryside to urban hubs for job opportunities. A major problem with migrant workers in this region is the historic gender disparity and abuse of women. For example, women are exploited in India, and across Asia, by employers subjecting them to "dirty, dangerous, and demeaning" work.⁴² In some

³⁷ F. Avvisati et al., "B-S-J-Z (China) - Country Note - PISA 2018 Results," Programme for International Student Assessment (PISA) Results from PISA 2018, 2019, https://www.oecd.org/pisa/publications/PISA2018_CN_QCI.pdf.

³⁸ OECD, "PISA 2018 Results: Combined Executive Summaries," 2019, https://www.oecd.org/pisa/Combined_Executive_Summaries_PISA_2018.pdf.

³⁹ Jieyu Liu, "Ageing, Migration and Familial Support in Rural China," *Geoforum* 51 (January 1, 2014): 305–12, <https://doi.org/10.1016/j.geoforum.2013.04.013>.

⁴⁰ Ian Cheung, "Who Is Responsible for Hong Kong's Invisible Migrant Workers?," accessed December 16, 2021, <https://www.csis.org/npfp/who-responsible-hong-kongs-invisible-migrant-workers>.

⁴¹ "HK Couple Get Jail Terms for Torture of Indonesian Maid," *BBC News*, September 18, 2013, sec. Asia, <https://www.bbc.com/news/world-asia-24147008>.

⁴² Ananya Chakraborty, "Negotiated Agency amidst Overlapping Vulnerabilities of Women Migrant Workers in South Asia," *Social Change* 50, no. 1 (March 1, 2020): 61–76, <https://doi.org/10.1177/0049085719901070>.

areas, there have been gendered careers. This is most common in domestic roles, where migrant women are mainly employed.⁴³ This work is often considered feminine by local customs and thus is compensated less than are male-dominated professions.⁴⁴

While the Indian migrant worker ecosystem is a major labor market, it is also the dominant source of laborers for the Gulf States. The Indian Foreign Ministry has received nearly 10,000 complaints in a 6-month period in 2019 from Indians in the Gulf.⁴⁵ These Indians claimed that they had been denied wages and medical care.⁴⁶ While the Indian government is concerned with these trends, considerable diplomatic recourse has yet to be observed.⁴⁷



Figure 3. Dubai Marina at Night⁴⁸

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ "Trafficked, Exploited, Ransomed - Indian Workers in the Gulf Face New Test," *Reuters*, September 30, 2019, sec. Big Story 10, <https://www.reuters.com/article/us-india-gulf-labour-idUSKBN1WF03S>.

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ "Free Image on Pixabay - Dubai, Marina, U A E, Landscape," accessed December 16, 2021, <https://pixabay.com/photos/dubai-marina-u-a-e-landscape-4760945/>.

The wealth of natural resources of the Persian Gulf has transformed small states into developed nations. Their labor shortage is a consequence of the fact that these states' new fortunes are being dedicated towards building major cities in the desert. Workers are hard to come by given the fast pace of city growth—thus migrant workers are needed.

But unlike the urbanization of China, which consisted almost exclusively of the Han Chinese ethnic majority, these Gulf States have drawn upon international laborers of different cultural heritages (such as South and Southeast Asian).⁴⁹ This ethnic diversity brings its own challenges, especially for Gulf States. A scholar at the University of Massachusetts, Amherst has provided the argument that given the conservative institutions in these countries (the conservative monarchist style of government that is heavily religious and authoritarian), governments see multiculturalism as likely to change their way of life.⁵⁰ As such, the policies put in place to control migration disregard worker freedoms in exchange for national hegemony and pride.⁵¹ To keep these cities homogeneous, migrant workers live in guarded encampments separate from the rest of the population—this is particularly prominent in Dubai and Doha where separate neighborhoods *de facto* exist.⁵² This housing often lacks basic sanitary standards and reports in various cities claim they are dangerous to live in, with high rates of criminal activity.⁵³

Additionally, until recent years, all women hoping to migrate to Gulf Cooperation Council nations for work have been subject to the whims of their 'male guardian'—a male relative whose permission is required for these women to be employed and travel. Thus, the guardian could control their movements. This prevented women from competing on an equal playing field to their male counterparts, ultimately subjecting women to less desirable career opportunities and employment—widening the gender gap.⁵⁴

⁴⁹ David Mednicoff, "The Legal Regulation of Migrant Workers, Politics and Identity in Qatar and the United Arab Emirates," accessed December 16, 2021, 29.

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² Ibid.

⁵³ Ibid.

⁵⁴ Jureidini and Hassan, *The Islamic Principle of Kafala as Applied to Migrant Workers*.

The Association of Southeast Asian Nations

The Association of Southeast Asian Nations (ASEAN), one of the ACD constituent members, is known for its long-standing policy of not interfering with internal affairs of member states. Nevertheless, ASEAN has outlined its view of the role of the state in worker migration in a 2017 non-binding agreement.⁵⁵ This “Consensus” was widely noted as establishing the basis for larger reforms. Some of the responsibilities included are wage protection guaranteed by the host country, policies reintegrating migrants in their home country, and policies protecting worker safety.⁵⁶ Additionally, the 2018 Consensus agreement emphasized how the bloc is committed to preventing physical and sexual abuse in host countries.⁵⁷ While embraced by all the member states, this resolution is only a parchment guarantee given the widespread abuses occurring within Southeast Asia.

This can be particularly criticized given the migrant rights track record of Southeast Asia, even recently. These abuses are often reported in the developed states that receive migrant workers. Three years ago, Malaysia received international attention for its settlement with migrant workers who did not receive the same legal rights as Malay citizens.⁵⁸ Another settlement in 2021 repaid lost wages to migrant workers.⁵⁹ As discussed previously, Singapore also receives criticism for domestic migrant workers being abused. These realities are quickly evolving but **multilateral** action has appeared to be only a parchment guarantee up until this point.

Interestingly, urban residents do not feel sympathy for the exploitation of migrant workers, which directly impacts their daily life. Approximately 8% of the Thai workforce are migrant workers and most nationals interact with migrant workers regularly. A survey conducted in Thailand found that 57% of citizens believed migrants are to blame if they are exploited.⁶⁰ Additionally, the survey found

⁵⁵ ASEAN, “ASEAN Consensus on the Protection and Promotion of the Rights of Migrant Workers,” accessed December 16, 2021, <https://asean.org/book/asean-consensus-on-the-protection-and-promotion-of-the-rights-of-migrant-workers-2/>.

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Mei Mei Chu, “U.S. Tire Maker Goodyear Loses Dispute against Foreign Workers in Malaysia,” *Reuters*, June 11, 2021, sec. Asia Pacific, <https://www.reuters.com/world/asia-pacific/us-tire-maker-goodyear-loses-dispute-against-foreign-workers-malaysia-2021-06-10/>.

⁵⁹ Ibid.

⁶⁰ *Public Attitudes towards Migrant Workers in Japan, Malaysia, Singapore and Thailand*, 2019, http://www.ilo.org/asia/publications/WCMS_732443/lang--en/index.htm.

52% believe migrants should not receive “the same pay and benefits as nationals.”⁶¹ While direct explanations for these attitudes are hard to come by, global trends of xenophobia, racism, and nationalism contribute to anti-immigrant attitudes. Many residents in these Asian metros associate migrants with a threat to their native culture.⁶² These attitudes will inform the decisions of governments, particularly in democracies and mixed regimes. This candid dismissal of migrant rights should be earnestly observed.

Indonesia, however, has received widespread acclaim for recent moves to protect the rights of migrant women. It secured legal rights to prevent exploitation in the largest ASEAN state.⁶³ However, it should be noted that Indonesia is a net supplier of migrant labor: more people leave Indonesia and work elsewhere than those who come and work in Indonesia.⁶⁴ The World Bank reported in 2017 that migrant workers accounted for over 7% of their entire labor force.⁶⁵ The most common occupation was being a household maid, which accounted for 32% of all migrant workers.⁶⁶ Farm and construction labor accounted for roughly 40% combined.⁶⁷ Ultimately, 55% of migrants ended up in Malaysia—a relatively wealthy country in Southeast Asia.⁶⁸

⁶¹ Ibid.

⁶² Ibid.

⁶³ World Bank, “Indonesia’s Global Workers: Juggling Opportunities and Risks” (Washington, DC: World Bank, November 2017), <https://openknowledge.worldbank.org/handle/10986/28937>.

⁶⁴ Wayne Palmer, “While Defending Its Migrant Workers’ Rights Overseas, Indonesia Has Denied the Rights of Foreigners to Work Here,” *The Conversation*, November 10, 2021, <http://theconversation.com/while-defending-its-migrant-workers-rights-overseas-indonesia-has-denied-the-rights-of-foreigners-to-work-here-171012>.

⁶⁵ World Bank, “Indonesia’s Global Workers.”

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid.

Past Actions

The past three decades have represented the first international interventions setting standards for migration and labor. The United Nations International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families includes elaborate expectations for rights and humane treatment.⁶⁹ Among other sections, it demands fair wages, adequate living standards, protection from abuse, and free travel for the workers.⁷⁰ This protocol was signed in 1990 and entered into force in 2003.⁷¹ However, this resolution was only ratified by a small number of states (mostly in South America and Southeast Asia) who cumulatively fall short in protecting the rights of migrant workers.⁷²

Hong Kong uniquely approaches abuse with a top-down model, going after recruitment agencies responsible before reaching employers and households directly.⁷³ They realize that many abuses are structural in nature and it is more efficient to pursue the enabling companies instead of individual perpetrators. While Hong Kong has taken steps to ensure protection of workers through governmental agencies, the CSIS has argued further cooperation between countries is necessary to ensure blacklisted employers do not hire migrant workers.⁷⁴

Within a national level, some countries have created laws such that migrant workers are not treated equally like nationals. Their worker protections, welfare benefits, and visa rights have been curtailed as discussed in previous sections. Singapore is one example where the rights of migrant workers are diminished compared to citizens'. The Gulf States are another case where the profitability of workers comes before their rights.

Additionally, some other nations have highly restrictive immigration policies that favor domestic labor. New Zealand and Japan both have high barriers for unskilled laborers. There is a general

⁶⁹ "OHCHR | International Convention on the Protection of the Rights of All Migrant Workers," accessed December 16, 2021, <https://www.ohchr.org/en/professionalinterest/pages/cmw.aspx>.

⁷⁰ Ibid.

⁷¹ "United Nations Treaty Collection," accessed December 16, 2021, https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-13&chapter=4#top.

⁷² Ibid.

⁷³ Cheung, "Who Is Responsible for Hong Kong's Invisible Migrant Workers?"

⁷⁴ Ibid.

pattern that the more restrictive immigration laws are, the fewer international migrant workers.⁷⁵⁷⁶
This is particularly true in wealthy countries.

Meanwhile, countries like Indonesia are taking their first steps to address the flow of labor out of their countries. But this is difficult given the weakness of institutions outside of major cities.

⁷⁵ Branko Marcetic, “‘On the Edge’: Are New Zealand’s Tough Immigration Rules Harming the Economy?,” *The Guardian*, June 22, 2021, sec. World news, <https://www.theguardian.com/world/2021/jun/22/on-the-edge-are-new-zealands-tough-immigration-rules-harming-the-economy>.

⁷⁶ Simon Denyer and Akiko Kashiwagi, “Japan Passes Controversial New Immigration Bill to Attract Foreign Workers,” *Washington Post*, December 7, 2018, https://www.washingtonpost.com/world/japan-passes-controversial-new-immigration-bill-to-attract-foreign-workers/2018/12/07/a76d8420-f9f3-11e8-863a-8972120646eo_story.html.

Possible Solutions

Protecting migrant workers must consider the different challenges of each country in the worker marketplace. Some countries are attempting to preserve their local labor force for their own economic potential, while others are opening to get income from their workers abroad.

Currently, policy makers are shooting in the dark when it comes to migrant workers. This is largely due to a lack of high-quality data. In particular, developing countries' inadequate census materials result in policymakers being blinded to greater problems. Another issue with data collection has been stigma associated with researchers. Oftentimes local populations are distrustful of Western scholars and provide inadequate data. These surveys may be conducted by NGOs or the government. When census takers are unable to gather genuine answers from communities, poor data emerges. Governments have been slow in taking meaningful actions. Only recently have states taken action to combat exploitation. Yet, the ability to genuinely reconcile migrant worker abuses with the needs of the economy requires data. Many high-level organizations such as the UN and ASEAN have committed to addressing these issues; however, it has proven difficult to translate to developing governments with other priorities.⁷⁷

Another problem is implementation on such a massive population scale. International treaties are difficult to implement because of the massive scale of these abuses. Particularly in poorer regions, there has been little authority to regulate these exploitative practices.

Given these challenges, think tanks and intergovernmental organizations have proposed a number of measures to improve the human rights situation with regards to migrant workers.⁷⁸ One necessity to any future resolutions will be improved data with the cognizance of how people in underdeveloped regions respond to researchers. Measures to improve data quality likely will have to be implemented on a small, community-based scale. This is because the institutional differences

⁷⁷ "OHCHR | International Convention on the Protection of the Rights of All Migrant Workers."

⁷⁸ Michele LeVoy and Nele Verbruggen, "Ten Ways to Protect Undocumented Migrant Workers," 2005, <https://apmigration.ilo.org/resources/ten-ways-to-protect-undocumented-migrant-workers>.

between countries and regions would make standardization challenging and often counterproductive.

Workers often are unable to bargain for themselves because they are recruited through monolithic agencies that operate independent contracts. Allowing migrant workers to unionize may improve working standards regarding health, safety, and working hours, among other issues. However, this suggestion raises many unanswered problems, such as the establishment and effectiveness of unions in different regions. Meanwhile, **shadow economies**—employment that circumvents legal institutions—dominates in many regions. This form of employment means protections for workers do not exist. Laborers work at the whims of the employer under the table. Compensation and safety laws are entirely up to the employer to dictate. The employer can even harass or threaten workers with punishment if they threaten unionizing.

Additionally, given how recruitment agencies have been at best bystanders to exploitation, solutions may have to realize intergovernmental agreements to their practices. **Corporate social responsibility** may be an approach to consider for some circumstances. This is a business-model where firms take on other priorities other than shareholder profits. However, similar to how shadow employment dominates, corporate sway in **informal economies** and thus, the impact may be marginal.

Given the diverse developmental needs of nations in the migrant labor ecosystem, any solution will have to recognize the manifold economic situations of nations. Capacity-wise, some nations in Asia are still developing stable governments and markets—few of these can afford to protect workers alone. Other countries have fleshed out economies and stable governance that allows for directly policing migrant worker issues. Moreover, solutions that disregard countries' needs for economic development will likely not be supported. An outright ban of migrant labor, for example, would bust the economies of every major participating nation. This employment serves a critical role for many nations, and delegates of this committee must make sure that economic development is not attained at the expense of migrant workers.

Bloc Positions

Currently within the global migrant worker market are small wealthy states and large developing states. Mostly outside of the marketplace are separated developed states and isolated developing states.

The most traditional case of migrant labor is a small state receiving cheaper labor from abroad. This has been observed at the scale of hundreds of thousands of migrant workers in Singapore and Hong Kong (not a state but a special administrative region of China).⁷⁹⁸⁰ Additionally, the Gulf states are participating at a possibly greater scale. However, data is less complete than from their East Asian counterparts. These states appreciate migrant labor and regulations will hit them the hardest.

Large developing states sometimes supply migrant laborers internationally since their national economy is big enough to satisfy the needs of their workers. For instance, India is able to sustain their own migrant worker needs and sends many abroad. These countries are most concerned with internal development. Losing workers hurts these countries and as a consequence they want to limit outward migration and protect these migrants. The migrant worker issue is a domestic one for these countries. As such, their priorities involve strengthening governmental institutions to create stability—this keeps talent in the country and ensures better working conditions.

Meanwhile, many ASEAN states have developed an internal migration trend due to the development disparity within the country itself. In China, for instance, despite having a massive lower class, the internal economy has only created conditions for a sustained domestic migration market.⁸¹ However, the islands of Hong Kong and Taiwan may be considered as exceptions—they receive migrants from neighboring Philippines and Indonesia.⁸² Likewise, Thailand's capital—Bangkok—is a wealthy metropolis that attracts migrant workers from other regions in Thailand.⁸³ This is similarly observed in the wealthy cities of the Philippines and Indonesia. Interestingly, as previously discussed,

⁷⁹ *Public Attitudes towards Migrant Workers in Japan, Malaysia, Singapore and Thailand.*

⁸⁰ Cheung, "Who Is Responsible for Hong Kong's Invisible Migrant Workers?"

⁸¹ Shi, Li. "Rural Migrant Workers in China: Scenario, Challenges and Public Policy." International Labour Office. International Labour Office, June 2008. http://www.ilo.int/wcmsp5/groups/public/---dgreports/---integration/documents/publication/wcms_097744.pdf.

⁸² Cheung, "Who Is Responsible for Hong Kong's Invisible Migrant Workers?"

⁸³ UNESCO et al., "Overview of Internal Migration in Thailand," Internal Migration in Southeast Asia, n.d., 9.

even the populations of these nations are often against migrant labor. These countries are reliant on international migrant workers for their economy and the first goal will be sustaining this labor marketplace. As such, these countries have often been reluctant to adopt restrictive regulations on migrant workers as it would curtail their economic contributions. This is despite an oftentimes negative appeal in home countries.

Outside of the grand migrant market are developed countries that seldom take in temporary workers. One prominent Asian example is Japan, which has less than 2 million migrant workers for a country of 130 million.⁸⁴ It is widely understood that Japan is closed to blue collar foreign workers. However, in recent years, there has been an influx of Peruvian Japanese—which is in line with the Japanese diaspora but is not embracing multiculturalism.⁸⁵ Oftentimes there is a broad nativist sentiment among these governments and among the populations at large. While these countries are not as involved in the migrant worker issue as others, they play major roles in the global economy. As such, ensuring they can set their own immigration laws and maintaining the strong global economy is a major priority. These nations recognize the importance of nationalism and self-determination, while supporting the general respect of human rights.

The final group consists of nations that are still developing and do not receive or send many migrant workers. Oftentimes there are geographic factors which lend themselves to this lack of development. Consider Papua New Guinea, a Southeast Asian state that seldom engages with the ASEAN mechanism or world trade. Given how isolated the island is, there is negligible movement in and out of the country. However, recently, from a partnership with Australia a small number of workers have been able to travel temporarily to Australia to work as farm hands.⁸⁶ These countries are trying to become relevant to the global economy. They can send workers abroad and attract global investments if they open up the economy and create a stable government. Many of these

⁸⁴ "Japan: Foreign Workers Number 2020," Statista, accessed December 16, 2021, <https://www.statista.com/statistics/961717/japan-number-foreign-workers/>.

⁸⁵ Ayumi Takenaka, "The Japanese in Peru: History of Immigration, Settlement, and Racialization," *Latin American Perspectives* 31, no. 3 (May 2004): 77–98.

⁸⁶ Jordan Fennell, "Australia: PNG Workers Heading for Queensland," Sound, ABC Radio Australia (Australian Broadcasting Corporation, January 20, 2021), <https://www.abc.net.au/radio-australia/programs/pacificbeat/png-seasonal-workers-head-to-australia/13072290>.

countries will favor multilateral solutions that open borders to allow for the free exchange of goods and people. This will allow for their development and ultimately, prosperity.

Glossary

Asia Cooperation Dialogue (ACD): An association of Asian nations with the goal to mutually advance development and prosperity.

Association of Southeast Asian States (ASEAN): A multilateral organization of every country in Southeast Asia. Has a stated mission of non-intervention however does cooperate in economic and commercial matters within itself and internationally.

Corporate Social Responsibility: “A management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders.”⁸⁷

Gulf Cooperation Council (GCC): A multilateral organization of resource rich countries on the Arab Peninsula. Saudi Arabia is the wealthiest member and the *de facto* leader—however this is a free association.

Immigration Visa: Official permission to enter a country one is not a citizen of for a determined period of time.

Market Regulation: Legal practices that make it difficult for businesses to enter a marketplace—restricting trade. Conversely, regulations can protect consumers and the environment from reckless producers.

Multilateralism: The cooperation of two or more states on an initiative or goal.

Shanghai Cooperation Organization (SCO): A Sino-centric economic cooperation union with neighboring Asian partners.

⁸⁷ “What Is CSR? | UNIDO,” accessed December 16, 2021, <https://www.unido.org/our-focus/advancing-economic-competitiveness/competitive-trade-capacities-and-corporate-responsibility/corporate-social-responsibility-market-integration/what-csr>.

Shadow/Informal Economy: “Economic activities that would generally be taxable were they reported to the tax authorities.”⁸⁸

⁸⁸ “Economic Issues No. 30 -- Hiding in the Shadows : The Growth of the Underground Economy,” accessed December 16, 2021, <https://www.imf.org/external/pubs/ft/issues/issues30/>.

Bibliography

- ASEAN. "ASEAN Consensus on the Protection and Promotion of the Rights of Migrant Workers." Accessed December 16, 2021. <https://asean.org/book/asean-consensus-on-the-protection-and-promotion-of-the-rights-of-migrant-workers-2/>.
- Avvisati, F., A. Echazarra, P. Givord, and M. Schwabe. "B-S-J-Z (China) - Country Note - PISA 2018 Results." Programme for International Student Assessment (PISA) Results from PISA 2018, 2019. https://www.oecd.org/pisa/publications/PISA2018_CN_QCI.pdf.
- Chakraborty, Ananya. "Negotiated Agency amidst Overlapping Vulnerabilities of Women Migrant Workers in South Asia." *Social Change* 50, no. 1 (March 1, 2020): 61–76. <https://doi.org/10.1177/0049085719901070>.
- Chaudhuri, Umeya, and Anna Boucher. "The Future of Enforcement for Migrant Workers in Australia." Sydney Policy Lab, University of Sydney, March 2021. <https://www.sydney.edu.au/sydney-policy-lab/news-and-analysis/news-commentary/the-future-of-enforcement-for-migrant-workers-in-australia.html>.
- Cheung, Ian. "Who Is Responsible for Hong Kong's Invisible Migrant Workers?" Accessed December 16, 2021. <https://www.csis.org/npfp/who-responsible-hong-kongs-invisible-migrant-workers>.
- Chu, Mei Mei. "U.S. Tire Maker Goodyear Loses Dispute against Foreign Workers in Malaysia." *Reuters*, June 11, 2021, sec. Asia Pacific. <https://www.reuters.com/world/asia-pacific/us-tire-maker-goodyear-loses-dispute-against-foreign-workers-malaysia-2021-06-10/>.
- Costa, Daniel, and Philip Martin. "Temporary Labor Migration Programs: Governance, Migrant Worker Rights, and Recommendations for the U.N. Global Compact for Migration." Economic Policy Institute, August 1, 2018. <https://www.epi.org/publication/temporary-labor-migration-programs-governance-migrant-worker-rights-and-recommendations-for-the-u-n-global-compact-for-migration/>.
- Denyer, Simon, and Akiko Kashiwagi. "Japan Passes Controversial New Immigration Bill to Attract Foreign Workers." *Washington Post*, December 7, 2018. https://www.washingtonpost.com/world/japan-passes-controversial-new-immigration-bill-to-attract-foreign-workers/2018/12/07/a76d8420-f9f3-11e8-863a-8972120646eo_story.html.
- "Economic Issues No. 30 -- Hiding in the Shadows : The Growth of the Underground Economy." Accessed December 16, 2021. <https://www.imf.org/external/pubs/ft/issues/issues30/>.
- Farbenblum, Bassina. "Wage Theft in Australia: Findings of the National Temporary Migrant Work Survey." Migrant Justice Institute, November 20, 2017.

<https://www.migrantjustice.org/highlights/2017/11/14/report-released-wage-theft-in-australia-findings-of-the-national-temporary-migrant-work-survey>.

"Farmworkers, Mostly Undocumented, Become 'Essential' During Pandemic - The New York Times." Accessed December 16, 2021. <https://www.nytimes.com/2020/04/02/us/coronavirus-undocumented-immigrant-farmworkers-agriculture.html>.

Fennell, Jordan. "Australia: PNG Workers Heading for Queensland." Sound. ABC Radio Australia. Australian Broadcasting Corporation, January 20, 2021. <https://www.abc.net.au/radio-australia/programs/pacificbeat/png-seasonal-workers-head-to-australia/13072290>.

"Free Image on Pixabay - Dubai, Marina, U A E, Landscape." Accessed December 16, 2021. <https://pixabay.com/photos/dubai-marina-u-a-e-landscape-4760945/>.

GUANYINMIAO. "Reliance On Live-In Domestic Workers Reflects Deeper Socio-Economic Malaise." *Guanyinmiao's Musings (Archived: July 2009 to July 2019)* (blog), May 30, 2016. <https://guanyinmiao.wordpress.com/2016/05/30/reliance-on-live-in-domestic-workers-reflects-deeper-socio-economic-malaise/>.

Harkins, Benjamin. "Wage Theft: The Missing Middle in Exploitation of Migrant Workers | OpenDemocracy." openDemocracy, January 21, 2021. <https://www.opendemocracy.net/en/beyond-trafficking-and-slavery/wage-theft-missing-middle-exploitation-migrant-workers/>.

Heath, Michael, and Adam Majendie. "The World's Biggest Immigration System Offers Lessons for a Disrupted World." *Bloomberg.Com*, October 28, 2021. <https://www.bloomberg.com/features/2021-australia-immigration/>.

"HK Couple Get Jail Terms for Torture of Indonesian Maid." *BBC News*, September 18, 2013, sec. Asia. <https://www.bbc.com/news/world-asia-24147008>.

Hunt, Katie, and Ben Westcott. "Most Singapore Foreign Domestic Workers Exploited, Survey Says." CNN, November 28, 2017. <https://www.cnn.com/2017/11/28/asia/singapore-domestic-helpers-maids/index.html>.

International Chamber of Shipping. "Shipping and World Trade: Driving Prosperity." Accessed December 17, 2021. <https://www.ics-shipping.org/shipping-fact/shipping-and-world-trade-driving-prosperity/>.

Statista. "Japan: Foreign Workers Number 2020." Accessed December 16, 2021. <https://www.statista.com/statistics/961717/japan-number-foreign-workers/>.

Jnzl's Photos. *Migrant Workers*. January 5, 2014. Photo. <https://www.flickr.com/photos/surveying/11770285646/>.

Jureidini, Ray, and Said Fares Hassan. *The Islamic Principle of Kafala as Applied to Migrant Workers: Traditional Continuity and Reform*. Brill, 2019. https://doi.org/10.1163/9789004417342_007.

International Labour Organization. "Labour Migration Statistics (Labour Migration)." Accessed December 16, 2021. <https://www.ilo.org/global/topics/labour-migration/policy-areas/statistics/lang--en/index.htm>.

LeVoy, Michele, and Nele Verbruggen. "Ten Ways to Protect Undocumented Migrant Workers," 2005. <https://apmigration.ilo.org/resources/ten-ways-to-protect-undocumented-migrant-workers>.

Liu, Jieyu. "Ageing, Migration and Familial Support in Rural China." *Geoforum* 51 (January 1, 2014): 305–12. <https://doi.org/10.1016/j.geoforum.2013.04.013>.

Marcetic, Branko. "'On the Edge': Are New Zealand's Tough Immigration Rules Harming the Economy?" *The Guardian*, June 22, 2021, sec. World news. <https://www.theguardian.com/world/2021/jun/22/on-the-edge-are-new-zealands-tough-immigration-rules-harming-the-economy>.

McBride, Justin, and Chris Tilly. "Organizing Informal Workers to Win." UCLA Institute for Research on Labor & Employment, January 2021. https://irle.ucla.edu/wp-content/uploads/2021/03/Organizing-Informal-Workers-to-Win_-Lessons-from-Informal-Domestic-and-Construction-Workers-in-Six-Countries.pdf.

Mednicoff, David. "The Legal Regulation of Migrant Workers, Politics and Identity in Qatar and the United Arab Emirates," n.d., 29.

Vocabulary.com. "Migrant - Dictionary Definition." Accessed December 16, 2021. <https://www.vocabulary.com/dictionary/migrant>.

"Migrant Workers | Ethical Trading Initiative." Accessed December 16, 2021. <https://www.ethicaltrade.org/issues/migrant-workers>.

OECD. "PISA 2018 Results: Combined Executive Summaries," 2019. https://www.oecd.org/pisa/Combined_Executive_Summaries_PISA_2018.pdf.

"OHCHR | International Convention on the Protection of the Rights of All Migrant Workers." Accessed December 16, 2021. <https://www.ohchr.org/en/professionalinterest/pages/cmw.aspx>.

Palmer, Wayne. "While Defending Its Migrant Workers' Rights Overseas, Indonesia Has Denied the Rights of Foreigners to Work Here." *The Conversation*, November 10, 2021. <http://theconversation.com/while-defending-its-migrant-workers-rights-overseas-indonesia-has-denied-the-rights-of-foreigners-to-work-here-171012>.

Public Attitudes towards Migrant Workers in Japan, Malaysia, Singapore and Thailand, 2019.
http://www.ilo.org/asia/publications/WCMS_732443/lang--en/index.htm.

Qi, Ziwei. "An Overview of Rural to Urban Migration in China and Social Challenges." *Migration Letters* 16, no. 2 (April 5, 2019): 273–82. <https://doi.org/10.33182/ml.v16i2.664>.

Robinson, Kali. "What Is the Kafala System?" Council on Foreign Relations, March 23, 2021.
<https://www.cfr.org/backgrounder/what-kafala-system>.

Shi, Li. "Rural Migrant Workers in China : Scenario, Challenges and Public Policy." *ILO Working Papers*. ILO Working Papers. International Labour Organization, 2008.
<https://ideas.repec.org/p/ilo/ilowps/994204063402676.html>.

Statista. "Singapore: Foreign Domestic Workers 2020." Accessed December 16, 2021.
<https://www.statista.com/statistics/953137/singapore-foreign-domestic-workers-employed/>.

"Singaporean Who Tortured and Killed Myanmar Maid Gets 30 Years in Jail." *BBC News*, June 22, 2021, sec. Asia. <https://www.bbc.com/news/world-asia-57563235>.

Takenaka, Ayumi. "The Japanese in Peru: History of Immigration, Settlement, and Racialization." *Latin American Perspectives* 31, no. 3 (May 2004): 77–98.

"Trafficked, Exploited, Ransomed - Indian Workers in the Gulf Face New Test." *Reuters*, September 30, 2019, sec. Big Story 10. <https://www.reuters.com/article/us-india-gulf-labour-idUSKBN1WF03S>.

UNCTAD. "Review of Maritime Transport 2018," October 3, 2018.
https://unctad.org/system/files/official-document/rmt2018_en.pdf.

UNESCO, UNDP, IOM, and UN-Habitats. "Overview of Internal Migration in Thailand," Internal Migration in Southeast Asia, n.d., 9.

United Nations. "Goal 8 | Department of Economic and Social Affairs." United Nations Department of Economic and Social Affairs Sustainable Development. Accessed December 16, 2021.
<https://sdgs.un.org/goals/goal8>.

United Nations Department of Economic and Social Affairs Population Division. *International Migration 2019: Report.*, 2019.

"United Nations Treaty Collection." Accessed December 16, 2021.
https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-13&chapter=4#top.

"What Is CSR? | UNIDO." Accessed December 16, 2021. <https://www.unido.org/our-focus/advancing-economic-competitiveness/competitive-trade-capacities-and-corporate-responsibility/corporate-social-responsibility-market-integration/what-csr>.

Wilson, Jennifer, and Belinda Wright. "Australia – COVID-19: Considerations for Managing a Migrant Workforce in Trying Times - KPMG Global." KPMG, March 30, 2020. <https://home.kpmg/xx/en/home/insights/2020/03/flash-alert-2020-130.html>.

World Bank. "Indonesia's Global Workers: Juggling Opportunities and Risks." Washington, DC: World Bank, November 2017. <https://openknowledge.worldbank.org/handle/10986/28937>.

TOPIC B: INFRASTRUCTURE

Statement of the Problem

Overview

Infrastructure development means a list of topics. It goes beyond the traditional roads, ports, and bridges. Often the definition extends to broadband internet access and newer forms of accessibility. For the sake of understanding research, consider infrastructure as the ability for transit—the carrying of people or goods—to enable commercial activity. Within the infrastructure realm, there is both hard and soft infrastructure. Hard infrastructure includes roads, inland airports, etc. Soft infrastructure is a catch-all phrase for services that allow for the maintenance of a society's activities. Some examples include healthcare and social services. Ultimately, these tools play a critical role in the development and social justice of a country.

For this committee, delegates will evaluate how hard infrastructure such as rail and internet access play a role in lifting people out of poverty and improving the stability of Asia.

Countries in Asia enjoy varied levels of development in hard infrastructure. Some Asian countries or regions are relatively advanced. For example, China and Japan have been relatively successful at different points in their historical chronologies. China has recently developed the world's most elaborate road network and Japan was one of the first states to connect their entire mainland with high speed rail. That said, many regions have been slow to build up infrastructure. Many states in Southeast Asia are just beginning construction on major infrastructure projects. This great disparity means some countries will advance faster than others—perpetuating a wealth divide and nativism. Be sure to consider how a slow build up of infrastructure impacts development and globalism.

Physical and Social Challenges

The development of infrastructure is intimately connected to a variety of environmental and social factors. In terms of environmental factors, infrastructure can be limited by physical conditions, but it can also help countries play better to the strengths that they already have, which can widen the gap

in development. This phenomenon is probably best exemplified by sea transport infrastructure.⁸⁹ Before we dive into the details, some background information on sea transportation would be helpful. Generally, it is believed that water access is critical to the flourishing of a society. In essence, water access makes doing business easier, and the ease of doing business in a particular region dictates how much commerce will be conducted and how populations will move.⁹⁰ That is why historically, a great number of urban hubs have had water access, either in the form of ocean access (New York City, Shanghai) or through water passages (London, Seoul). Additionally, sea transportation provides cheaper global transport through standardized shipping containers compared to freight and air.⁹¹

Commerce over the seas is particularly relevant for Asian countries because of Asia's geography. For island nations such as Japan, it is a primary node to the world. Sea travel has also been a trigger for development. With the Persian Gulf, natural resources were initially exported through waterways and as Dubai has become a manifold economic hub, the ports have become critical destinations in the world economy outside of simply oil.⁹² Specifically, the Jebel Ali port is one of the largest in the world—with more container units per year than even the Port of Los Angeles.⁹³

Due to the aforementioned reasons, countries with water access invest heavily in building sea transport infrastructure. China, Singapore, and South Korea boast 9 of the 10 largest ports in the world as a consequence of their heavy investment.⁹⁴ These hubs have encouraged global trade. Asian ports are mission critical to national presences in the global economy—China is now the world's largest exporter,⁹⁵ and Singapore exports 170% of their GDP every year.⁹⁶ Their economic

⁸⁹ UNCTAD, "Review of Maritime Transport 2018," October 3, 2018, https://unctad.org/system/files/official-document/rmt2018_en.pdf.

⁹⁰ International Chamber of Shipping, "Shipping and World Trade: Driving Prosperity," accessed December 17, 2021, <https://www.ics-shipping.org/shipping-fact/shipping-and-world-trade-driving-prosperity/>.

⁹¹ OECD, "Ocean Shipping and Shipbuilding - OECD," accessed December 17, 2021, <https://www.oecd.org/ocean/topics/ocean-shipping/>.

⁹² Port Technology, "Jebel Ali Port in Dubai," *Al Fares Logistics* (blog), December 23, 2020, <https://alfareslogistik.com/en/jebel-ali-port-in-dubai/>.

⁹³ UNCTAD, "Review of Maritime Transport 2018," October 3, 2018, 73, https://unctad.org/system/files/official-document/rmt2018_en.pdf.

⁹⁴ Ibid.

⁹⁵ "Leading Export Countries Worldwide in 2020," Statista, accessed December 17, 2021, <https://www.statista.com/statistics/264623/leading-export-countries-worldwide/>.

⁹⁶ "Singapore Exports of Goods and Services in % of GDP 2015 - 2019 | WITS Data," accessed December 17, 2021, <https://wits.worldbank.org/CountryProfile/en/country/SGP/startyear/2015/endyear/2019/indicator/NE-EXP-GNFS-ZS>.

success would not be possible without robust sea commerce. Economic growth can further facilitate developments in other areas such as education. In China, exam scores are resoundingly high relative to neighboring Asian states.⁹⁷ Economic growth is often linked with educational success by economists.⁹⁸

However, countries that lack access to waterways do not have these opportunities since there is no place for them to build seaports or send off ships to begin with. Landlocked, poor and environmentally restricted countries are unable to play in this developmental chess game. It is important to keep in mind that global commerce is solely dependent on access and connectivity. Zooming out from the sea travel example, we can apply similar logic to other kinds of infrastructure such as roads, highways, and airports. When a country lacks access, infrastructure development may be constrained, and the nation's prosperity and economy could fall behind.

An important case to consider is Nepal. A heavily mountainous country with no water access, the nation is nestled between two major powers that are both enjoying development from increased global connectivity: India and China. Meanwhile, Nepal remains one of the poorest countries in the world—even under regional standards. One major obstacle to development is the Nepalese Himalayas that obstruct any major constructions such as highways or large airports. Ultimately, this has led to Nepal being between two industrial giants—China and India—with little reward. Had these geographic conditions been more palatable, Nepal, for example, could be a consequential stopping point in India-China trade. But because of the obstructions, there is negligible trade between the two powers that goes through Nepal.⁹⁹

Also, consider Myanmar. Although the country has thousands of miles of coastline, its major cities are all inland where dense rainforests have prevented easy development of infrastructure. This is one reason why, historically, Myanmar has seen little development within. The country had the highest proportion of population living below the national poverty line in the ASEAN bloc based on available

⁹⁷ OECD, "PISA 2018 Results: Combined Executive Summaries," 2019, https://www.oecd.org/pisa/Combined_Executive_Summaries_PISA_2018.pdf.

⁹⁸ OECD, "Education in China: A Snapshot," 2016, <https://www.oecd.org/china/Education-in-China-a-snapshot.pdf>.

⁹⁹ Thomas Sowell, *Wealth, Poverty and Politics* (Basic Books, 2016).

data in 2018.¹⁰⁰ It has not been until recently that the nation has enjoyed some economic growth, which is after all other ASEAN states have been industrializing for decades.¹⁰¹

Infrastructure can also be affected by social and political factors, which is exemplified by Lebanon, a country lacking internal security. The militant Hamas group—which is considered a terrorist organization by the European Union, the United States, the United Kingdom, and others—controls large swaths of the country.^{102,103} Meanwhile, the state’s only port—Beirut—suffered an internationally observed explosion. The port has yet to be reconstructed.¹⁰⁴ The country is in a constant state of chaos: it is unable to receive goods from large cargo ships,¹⁰⁵ new infrastructure development is slow,¹⁰⁶ and the state cannot even maintain its own existing investments such as the electrical grid of Beirut.¹⁰⁷ Lebanon has been unable to maintain an environment of safety which is a prerequisite for repair, development, and future investment in infrastructure.

The sheer number and density of population in many regions in Asia also brings challenges to local infrastructure such as roads and highways. One of the major problems is traffic congestion. Congestion costs hundreds of billions of dollars in economic activity.¹⁰⁸ This issue is of particular note in South Asia. Three Indian cities appeared among the top 10 of global traffic congestion ranking.¹⁰⁹

¹⁰⁰ ASEAN Secretariat, “ASEAN Key Figures 2020,” December 2020, 28, https://www.aseanstats.org/wp-content/uploads/2020/11/ASEAN_Key_Figures_2020.pdf.

¹⁰¹ Lex Rieffel, “The Myanmar Economy: Tough Choices,” September 6, 2012, <https://www.brookings.edu/research/the-myanmar-economy-tough-choices/>.

¹⁰² “Hamas: The Palestinian Militant Group That Rules Gaza,” *BBC News*, July 1, 2021, sec. Middle East, <https://www.bbc.com/news/world-middle-east-13331522>.

¹⁰³ “Lebanon: The Israel-Hamas-Hezbollah Conflict,” September 15, 2006, <https://www.everycrsreport.com/reports/RL33566.html>.

¹⁰⁴ “In Pictures: Beirut Port Explosion, One Year On,” *Aljazeera*, August 4, 2021, <https://www.aljazeera.com/gallery/2021/8/4/lebanon-beirut-port-explosion-one-year-on>.

¹⁰⁵ Kelsey D. Atherton, “Lebanon’s Ruined Port Is a Nightmare to Rebuild,” *Foreign Policy* (blog), August 19, 2020, <https://foreignpolicy.com/2020/08/19/lebanon-port-explosion-rebuild-nightmare-corruption-pandemic/>.

¹⁰⁶ Kareem Chehayeb, “In Limbo: Beirut Blast Victims Still Struggling to Return Home,” August 2, 2021, <https://www.aljazeera.com/news/2021/8/2/one-year-on-beirut-blast-victims-still-struggling-to-return-home>.

¹⁰⁷ Ellen Ioanes, “Lebanon’s Electricity Was down for a Day, but the Crisis Was Years in the Making,” *Vox*, October 10, 2021, <https://www.vox.com/2021/10/10/22719115/lebanon-power-grid-collapse-beirut-crisis>.

¹⁰⁸ Richard Arnott and Kenneth Small, “The Economics of Traffic Congestion,” *American Scientist* 82, no. 5 (1994): 446–55.

¹⁰⁹ Dipak K Dash, “Global Traffic Congestion Ranking Has 3 Indian Cities in Top 10,” *The Times of India*, January 14, 2021, <https://timesofindia.indiatimes.com/india/mumbai-bengaluru-delhi-in-top-10-world-cities-in-traffic-congestion-indicating-revival-of-economic-activities/articleshow/80246426.cms>.

This means individuals are wasting potential hours for labor or leisure in unproductive and costly waits.

Congested urban hubs often have great deals of pollution from both automobiles and industry. U.S. National Institute of Health studies show that there is an increased risk of disease and higher morbidity with vehicle congestion.¹¹⁰ It could contribute to respiratory illnesses and damages among residents.¹¹¹ Additionally, these health effects lead to higher medical expenditures per capita and ultimately lower lifespans.¹¹²

While the traditional solution has been to build more highways, for the past three decades, some researchers have been arguing that it is unproductive as building more highways only increases demand for said roads and does not address the structural issues.¹¹³ This effectively means that for urban hubs, no matter how big roads practically get, more drivers will come to fill the demand. One classical example is Los Angeles, where a major highway expansion did little to alleviate chronic congestion.¹¹⁴ Instead, urban planners should focus on developing public transportation that can reroute people away from roads such that there is no singular mode that can restrict movement.¹¹⁵

However, a free-market solution may become a universally workable solution to congestion. By establishing “High Occupancy/Toll” roads,¹¹⁶ there would be a small fee to use certain roadways. The rationale behind this scheme is that, just like airlines, drivers will respond to price changes to

¹¹⁰ Kai Zhang and Stuart Batterman, “Air Pollution and Health Risks Due to Vehicle Traffic,” *The Science of the Total Environment* 0 (April 15, 2013): 307–16, <https://doi.org/10.1016/j.scitotenv.2013.01.074>.

¹¹¹ Ibid.

¹¹² Chris E. Ekpenyong et al., “Urban City Transportation Mode and Respiratory Health Effect of Air Pollution: A Cross-Sectional Study among Transit and Non-Transit Workers in Nigeria,” *BMJ Open* 2, no. 5 (January 1, 2012): e001253, <https://doi.org/10.1136/bmjopen-2012-001253>.

¹¹³ Simon Kingham, “Climate Explained: Does Building and Expanding Motorways Really Reduce Congestion and Emissions?,” *The Conversation*, October 6, 2020, <http://theconversation.com/climate-explained-does-building-and-expanding-motorways-really-reduce-congestion-and-emissions-147024>.

¹¹⁴ Facebook et al., “Opinion: There’s Only One Way to Fix L.A.’s Traffic, and It Isn’t Elon Musk’s Tunnels. We Need Tolls — Lots of Them,” *Los Angeles Times*, March 3, 2017, <https://www.latimes.com/opinion/livable-city/la-ol-traffic-toll-lane-freeway-20170303-story.html>.

¹¹⁵ Ibid.

¹¹⁶ Ibid.

alleviate congestion. As such, traffic would be regulated by the free market.¹¹⁷ Nevertheless, the inherent inequity attached with charging varying prices to use roads should not be ignored.

International Investments

Without access to loans, countries can struggle to finance major infrastructure projects. Oftentimes, developing countries are in debt. As such, some organizations step in to lend countries funds even when banks find it too risky. The International Monetary Fund (IMF) and the World Bank play an outsized role in this funding—lending billions at low rates every year.^{118,119}

Multilateral investment groups such as the IMF and China's One Belt One Road initiative have also contributed to the construction of major infrastructure projects in many countries, albeit critics argue in a predatory manner.¹²⁰ These investments have been used as a medium for alleviating overstressed roads and ports, but the tradeoff is debt to the lender nation or internal reform required by nations guiding the lender organization. China has notably used their initiatives to leverage their cash reserves to build up foreign relations.¹²¹ Several African and Asian nations have received major infrastructure investments to be paid back to the Chinese government through a loan program.¹²² If a nation defaults, or stops paying its loan obligations, China has threatened to repossess major infrastructures.¹²³ This effectively means that a foreign entity would control a state's infrastructure and any economic activity related to it. Other groups such as the IMF, historically guided by the United States, have also invested in developing nations. Several countries in Asia have received IMF bailouts to ensure investment stability and keep foreign capital flowing. Indonesia once experienced a drought and economic recession that necessitated a bailout from the IMF to sustain the

¹¹⁷ Ibid.

¹¹⁸ "Annual Report 2021," World Bank, accessed December 17, 2021, <https://www.worldbank.org/en/about/annual-report>.

¹¹⁹ "IMF Annual Report 2020 | What We Do | Lending," International Monetary Fund, September 15, 2020, <https://www.imf.org/external/pubs/ft/ar/2020/eng/what-we-do/lending/>.

¹²⁰ Karen M Sutter, Andres B Schwarzenberg, and Michael D Sutherland, "China's 'One Belt, One Road' Initiative: Economic Issues," *Economic Issues*, January 22, 2021, 3.

¹²¹ Ibid.

¹²² Ibid.

¹²³ Ibid.

government's functions.¹²⁴ Different from the Chinese loans, the IMF more often ties its loans to fiscal policy changes and other reforms instead of specific construction projects.¹²⁵

Sustainability

One highly contested topic for environmental sustainability is the role of gas consumption in an eco-friendly society. A state reliant on cars will by default require expensive and obstructive roads throughout the country; likewise with shipping and aviation. Meanwhile, automobiles have consistently sustained liberal market economies and propelled nations to upper income status. Cars and trucks allow for the direct delivery of goods wherever there are roads. In countries such as the United States and China, the elaborate network of roads enables rapid and affordable connection between hubs of commerce that otherwise would be prohibitively hard to access.¹²⁶ Asia is mostly developing and smaller countries. As such, many countries have prioritized road construction as part of their development. China has not only funded road construction but has paid for neighboring states to build highways and bridges so that the countries can become more interconnected.¹²⁷ There is a gradient in which the government chooses between investing in sustainable connectivity and efficiency.

The cleaner options often cost much more than the cheapest. Oftentimes in Asia, policymakers side with market growth and against immediate environment-friendly options. Despite long-term impact on the environment, this leads to faster economic growth and higher quality of life in the short term. The automobile is much more flexible than public transits and its use can be individualized, which thus allows people to fill jobs in ways that public transit typically cannot. The Autobahn highway network played a significant causal role in the post-WW2 economic recovery of Germany.¹²⁸

¹²⁴ "Recovery from the Asian Crisis and the Role of the IMF -- An IMF Issues Brief," June 2000, <https://www.imf.org/external/np/exr/ib/2000/o62300.htm#box3>.

¹²⁵ Ibid.

¹²⁶ Claudia N Berg et al., "Transport Policies and Development," July 14, 2015, 11–15.

¹²⁷ Sutter, Schwarzenberg, and Sutherland, "China's 'One Belt, One Road' Initiative: Economic Issues."

¹²⁸ Joachim Moeller and Marcus Zierer, "The Impact of the German Autobahn Net on Regional Labor Market Performance: A Study Using Historical Instrument Variables," *SSRN Electronic Journal*, October 2014, <https://doi.org/10.2139/ssrn.2520748>.

That said, the environmental impacts should not be overlooked. Gulf States have leveraged the wealth of their natural resources to establish themselves as transit hubs between Europe and Asia. Yet, their economies have been fueled by environmentally harmful practices such as natural resource extraction and aviation, while environmental impacts have been broadly overlooked.¹²⁹

One initiative to shift away from environmental exploitation to a technology-based economy is the concept of Neom city.¹³⁰ In Saudi Arabia, the government is pouring over \$500 billion from their sovereign wealth fund into a new city.¹³¹ Located in the desert within proximity of Jordan, Israel, and Egypt, Neom aims to attract sustainable innovators to Saudi Arabia.¹³² This city will be an economic engine entirely decoupled from oil—allowing for the country to remain relevant in a green and post-oil economy.¹³³ While a city like Neom may not at first glance seem relevant to infrastructure, it is the articulation of green infrastructure. This coastal city will develop sustainable transportation and will serve as an economic node for the Red Sea.¹³⁴

This approach—building a futuristic, eco-friendly city—is reflective of the solutions developing countries are aspiring for, and Neom is not the only proposal. Several African states have similar concepts.^{135,136} What is common among all these concepts is the high cost of the projects and limited available funding.¹³⁷ As a result, whether these projects can be actualized remains a question.

It should be noted that projects such as Neom are highly controversial for Saudi Arabia's bondage-like treatment of migrant construction workers. Critics worry that these projects may be continuing

¹²⁹ Rabiya Jaffery, "Warming Temperatures & Decades of Oil Spills Cause Irreversible Damage to the Persian Gulf," Inter Press Service, August 10, 2020, <http://www.ipsnews.net/2020/08/warming-temperatures-decades-oil-spills-cause-irreversible-damage-persian-gulf/>.

¹³⁰ Ruth Michaelson, "'It's Being Built on Our Blood': The True Cost of Saudi Arabia's \$500bn Megacity," *The Guardian*, May 4, 2020, sec. Global development, <https://www.theguardian.com/global-development/2020/may/04/its-being-built-on-our-blood-the-true-cost-of-saudi-arabia-5bn-mega-city-neom>.

¹³¹ Ibid.

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Jackson Rollings, "Saudi Arabia to Build \$500 Billion Mega-City on the Red Sea," *The Architect's Newspaper*, October 27, 2017, <https://www.archpaper.com/2017/10/saudi-arabia-neom-500-billion-mega-city/>.

¹³⁵ Emmanuel Akinwotu, "Music Mogul Akon Going Ahead with Futuristic 'Akon City' in Senegal," *The Guardian*, September 1, 2020, sec. World news, <https://www.theguardian.com/world/2020/sep/01/music-mogul-akon-going-ahead-with-futuristic-akon-city-in-senegal>.

¹³⁶ Antonia Noori Farzan, "Akon Hasn't Even Built His First 'Futuristic' City yet, but Uganda Is Giving Him Land for a Second," *Washington Post*, April 6, 2021, <https://www.washingtonpost.com/world/2021/04/06/akon-city-uganda/>.

¹³⁷ Ibid.

in migrant worker abuses common in the Gulf.¹³⁸ This may prove a real obstacle in attracting international investors and businesses because of human rights concerns. Crown Prince Mohammed bin Salman is attempting to change this reputation by introducing human rights reforms in the country. Thus far, it seems that he has been successful. Mohammed bin Salman's tenure has brought about women in government.¹³⁹ Western news reports have even lauded the leader for the rapid improvement in the human rights situation. Whereas in a period of less than a decade, women have been afforded many civil rights never considered in the country.¹⁴⁰ This change in perception will likely warm foreign businesses to a country seeking to get outside economic investment in its major infrastructure projects.

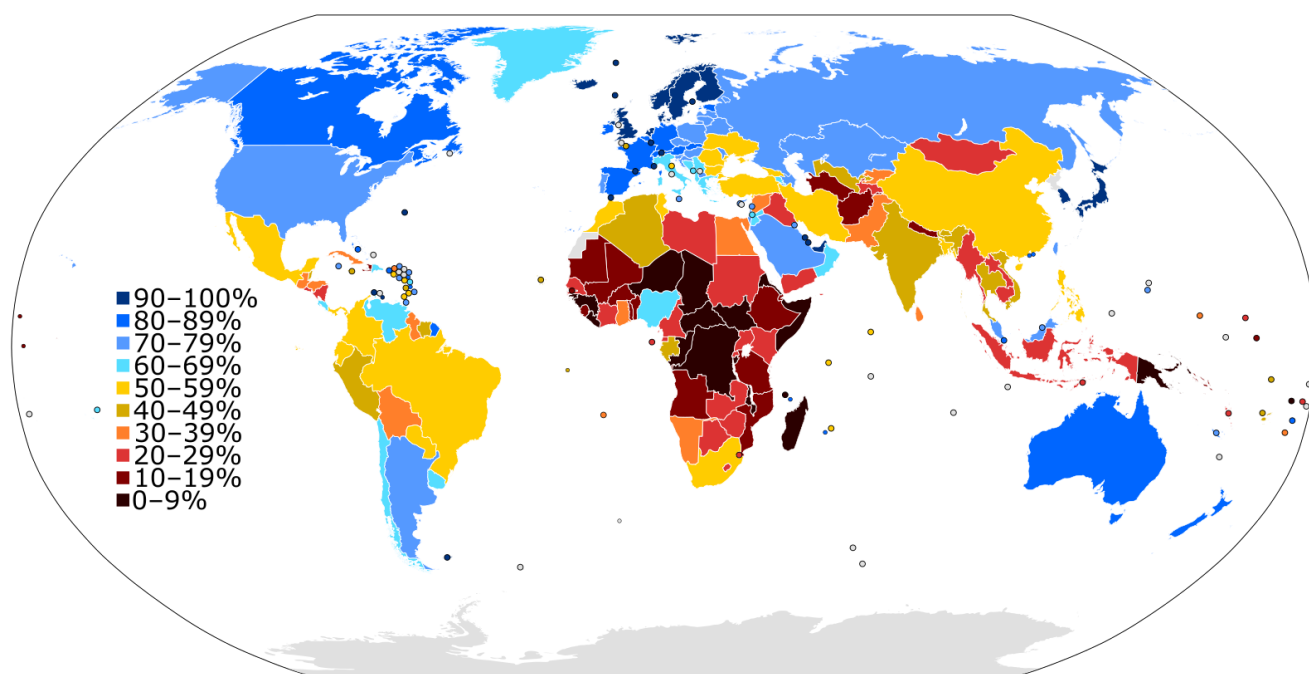


Figure 4. Global Internet Penetration¹⁴¹

¹³⁸ Mustafa Qadri and Michael Eisner, "Opinion: Saudi Arabia Is Planning a Futuristic City of Clean Energy and Flying Taxis. Don't Build It with Abusive Labor Practices," CNN, July 13, 2021, <https://www.cnn.com/2021/07/13/opinions/saudi-arabia-neom-workers-eisner-qadri/index.html>.

¹³⁹ David H. Rundell, "Women Are Steering Saudi Arabia toward Revolutionary Change," Text, TheHill, October 28, 2021, <https://thehill.com/opinion/international/578902-women-are-steering-saudi-arabia-towards-revolutionary-change>.

¹⁴⁰ "Saudi Arabia Reforms: Royal Power Play or Meaningful Change? | DW | 27.06.2021," DW.COM, accessed December 17, 2021, <https://www.dw.com/en/saudi-arabia-reform-royal-family/a-58017860>.

¹⁴¹ Jeff Ogden, *English: A World Map Colored to Show the Level of Internet Penetration (Number of Internet Users as a Percentage of a Country's Population)*, April 24, 2012, April 24, 2012, Own work based on: figures from the Wikipedia:List of countries by number of Internet users article in the English Wikipedia, which is in turn based on figures from the

Connectivity and Internet Access

Another point of trade and communication in the modern era is internet access. Some nations' economies are defined by their digital connection to others. Israel and Singapore both are technological powerhouses despite not having economically advanced neighbors. This is because of the universal nature of the internet. Despite lacking natural resources, Israel is the second most developed in Asia and Singapore is the first—according to the United Nations 2020 Human Development Index.¹⁴² A great part of this success is because of their heavy presence in technological innovation which is made possible by digital connectivity.^{143,144}

However, many developing nations presently lack this human capital. Countries like Nepal that lack infrastructure needed for high-speed and stable internet access may experience a digital divide in the country between those who live in developed regions versus those not.¹⁴⁵ This is particularly problematic in countries where there is already an extant wealth gap.¹⁴⁶ This disparity is visible particularly in Asia and the Pacific where more than half of the population do not have access to the internet.¹⁴⁷ Given the economic importance of the internet, more equitable networks must be formed.

Questions to Consider

As delegates are researching this topic, they are asked to use the following questions as starting points. What can nations do to ensure equitable and rapid development of reliable infrastructure?

International Telecommunications Union (ITU) for 2010 (updated to use figures for 2012 on 28 June 2013) (updated to 2016 on 5 Jan 2019). This SVG map includes elements that have been taken or adapted from this map: BlankMap-World6.svg, <https://commons.wikimedia.org/wiki/File:InternetPenetrationWorldMap.svg>.

¹⁴² UNDP, ed., *The next Frontier: Human Development and the Anthropocene*, Human Development Report 2020 (New York, NY: United Nations Development Programme, 2020).

¹⁴³ Mark Minevich, "How The US Can Learn About Successful Innovation Strategies From Israel, The Startup Nation," *Forbes*, May 29, 2020, <https://www.forbes.com/sites/markminevich/2020/05/29/how-the-us-can-learn-about-successful-innovation-strategies-from-israel-the-startup-nation/>.

¹⁴⁴ "Individuals Using the Internet (% of Population) - Israel | Data," The World Bank Data, accessed December 17, 2021, <https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=IL>.

¹⁴⁵ Krishana Prasain, "Nepali Internet Users Getting Angrier over Bad Service," *The Kathmandu Post*, October 21, 2021, <https://kathmandupost.com/money/2021/10/21/nepali-internet-users-getting-angrier-over-bad-service>.

¹⁴⁶ Pekka Lundmark, "We Must Build Smart Villages and Towns, Not Just Smart Cities," *World Economic Forum*, October 11, 2021, <https://www.weforum.org/agenda/2021/10/smart-cities-we-also-need-smart-villages/>.

¹⁴⁷ "Bridging Asia-Pacific 'Digital Divide' Vital to Realize Tech Benefits," *UN News*, August 18, 2020, <https://news.un.org/en/story/2020/08/1070502>.

What is the role of the international organization? What is the cost of pollution in development?
Should global powers and corporations be favored—or should development be a goal of itself?

History of the Problem & Past Actions

National Transportation Infrastructure

Ancient Times

The first roads, built before the age of mechanization, were signs of military might and power. Prior to industrialization, great power built networks of infrastructure. The Roman Empire paved over 120,000 km throughout Europe.¹⁴⁸ These cobblestone paths may seem insignificant, but they represented coordination and manpower never before seen in Europe, which was evidence of the power of the Roman Empire.¹⁴⁹ Because of this infrastructure investment, the Empire could easily trade with and conquer neighboring regions.¹⁵⁰

Additionally, the Romans were noted for building the predecessors to modern water networks. The Roman Aqueducts were large above ground canals of water that were moved by gravity.¹⁵¹ They sustained agriculture, industry, and household sanitation on a level never before observed.¹⁵²

In Imperial China over 2,000 years ago, the Silk Road served as a link from East Asia to the Middle East.¹⁵³ While less coordinated than the Romans, several different Chinese government-maintained paths extending over 4,000 miles towards Europe.¹⁵⁴ Some of these paths went through harsh climates such as the Gobi Desert.¹⁵⁵

¹⁴⁸ Luuk de Ligt and Laurens Ernst Tacoma, eds., *Migration and Mobility in the Early Roman Empire*, vol. 23/7, Studies in Global Migration History (Brill, 2016), <https://brill.com/view/title/31880>.

¹⁴⁹ Ibid.

¹⁵⁰ Ibid.

¹⁵¹ National Geographic Society, "Roman Aqueducts," National Geographic Society, July 6, 2018, <http://www.nationalgeographic.org/encyclopedia/roman-aqueducts/>.

¹⁵² Ibid.

¹⁵³ "Silk Road | Facts, History, & Map | Britannica," Britannica, accessed December 17, 2021, <https://www.britannica.com/topic/Silk-Road-trade-route>.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

The other end of the Silk Road linked up to the Persian Royal Road—a road stretching through Southern Asia built by Alexander the Great.¹⁵⁶ This road was such a feat that he boasted the 1,500-mile road could be traveled in 9 days' time.¹⁵⁷

China

Modern-day China is attempting to replicate the historical successes of the Silk Road. China has constructed a road network that has more roads than the US Interstate System.¹⁵⁸ Additionally, China has been lauded for the rapid construction of bridges and other engineering challenges. The Chinese government said that it had built over 10,000-km of highways every year since 2011.¹⁵⁹ Notably, many projects are carried out under state direction.¹⁶⁰

Japan

Japan was the first state in Asia to undergo industrialization, and first to the game in developing high-speed rail.¹⁶¹ Still noted today for its high speed and on-time record, the Shinkansen system has connected the entire Japanese mainland without resorting to air travel.¹⁶² Additionally, Tokyo developed a modern **metro rail** system beginning in the 1960s that connects the massive urban sprawl.¹⁶³ Unlike most cities, Tokyo's metro is not operated by one company but instead a network of dozens of smaller ones.¹⁶⁴ They coordinate each portion of the rail line to create a succinct and

¹⁵⁶ "Persian Royal Road | Ancient Road, Asia | Britannica," Britannica, accessed December 17, 2021, <https://www.britannica.com/topic/Persian-Royal-Road>.

¹⁵⁷ Ibid.

¹⁵⁸ Jean-Paul Rodrigue, "Length of the Interstate Highway System and of the Chinese Expressway System, 1959-2017 | The Geography of Transport Systems," The Geography of Transport Systems, May 26, 2020, <https://transportgeography.org/contents/chapters5/road-transportation/highway-length-china-united-states/>.

¹⁵⁹ CGTN, "China Has 130,000 Km of Highways, the Most in the World," The People's Republic of China State Council, August 27, 2017, 1, http://english.www.gov.cn/news/top_news/2017/08/27/content_281475818432406.htm.

¹⁶⁰ IPWEA, "How China Built the World's Largest Highway Network | IPWEA," March 22, 2021, <https://insite.ipwea.org/how-china-built-the-worlds-largest-highway-network/>.

¹⁶¹ Richard Nunno, "Fact Sheet | High Speed Rail Development Worldwide | White Papers | EESI," EESI, July 19, 2018, <https://www.eesi.org/papers/view/fact-sheet-high-speed-rail-development-worldwide>.

¹⁶² Ibid.

¹⁶³ "Japan - Government and Society | Britannica," Britannica, accessed December 17, 2021, <https://www.britannica.com/place/Japan/Railways>.

¹⁶⁴ Ibid.

unified network. Ultimately, this organizational method led to Tokyo enjoying one of the most efficient and utilized metro networks in the world.¹⁶⁵

British Raj and modern-day India

Despite the contentious role of colonization in Asia, the British Empire's legacy in rail has been widely utilized even in modern-day India.¹⁶⁶ (As a side note, we do not talk about colonization at MUNUC and no delegates should defend colonization.) The British poured considerable capital into this rail network, and despite exploitative motives, established a network that allowed for cohesive, efficient travel throughout the subcontinent.¹⁶⁷ Some believe that the discriminatory and exploitative design of India's rail in colonial times prohibited the country from making the most economic gains out of the network.¹⁶⁸ The history of India's rail stresses the importance of equity in infrastructure development in the modern era.

Australia

Being a former colony of the British Empire, Australia has been the recipient of economic support from the British Commonwealth since the beginning of the 19th century.¹⁶⁹ This has enabled basic roads to connect the major cities of Australia.¹⁷⁰ However, given the great size of the country for only 30 million residents, the average population density is extremely low across the nation and highly concentrated on the Eastern coast.¹⁷¹ The roads are sparse. It takes considerable investment to build merely a two lane highway between metropolises.¹⁷²

¹⁶⁵ Ibid.

¹⁶⁶ Christian Wolmar, "How Britain's Colonial Railways Transformed India," Reconnecting Asia, June 13, 2017, <https://reconasia.csis.org/how-britians-colonial-railways-transformed-india/>.

¹⁶⁷ Ibid.

¹⁶⁸ Ibid.

¹⁶⁹ Bernard Attard, "The Economic History of Australia from 1788: An Introduction," EH.net, accessed December 17, 2021, <https://eh.net/encyclopedia/the-economic-history-of-australia-from-1788-an-introduction/>.

¹⁷⁰ "Feature Article - History of Roads in Australia (Feature Article)," Australian Bureau of Statistics, January 25, 1974, <https://www.abs.gov.au/ausstats/abs@.nsf/o/2e904c15091c39a5ca2569de0028b416?OpenDocument>.

¹⁷¹ David Scutt, "Here's Where Australia's Population Lives, and Where It's Growing the Fastest," *Business Insider Australia*, March 27, 2019, <https://www.businessinsider.com.au/australia-population-density-fastest-growing-regions-2019-3>.

¹⁷² "European Highway Construction Costs Evaluated," *World Highways*, May 30, 2012, <https://www.worldhighways.com/news/european-highway-construction-costs-evaluated>.

Foreign Investment

Hoping to build off of their successes domestically, the People's Republic of China has launched a global initiative to build up infrastructure to tie back economic growth to the Chinese mainland.¹⁷³ Based on the name, the purpose is rather clear: to create an economic sphere around China through investing in international infrastructure. This initiative targets dozens of countries—primarily in Asia and Africa—for infrastructure investments.¹⁷⁴ This has typically appeared as roads, bridges, and ports in exchange for loan payments.¹⁷⁵

While the PRC has been successful in building these major projects in countries that have never received such impactful investments, these predatory practices have earned the Chinese government distrust and resentment abroad.¹⁷⁶ The main worry is that these investments are causing a worrisome increase in the debt-to-GDP (Gross Domestic Product) ratio for economies.¹⁷⁷

The US also invests in infrastructure projects in developing countries—many of which are in Asia.¹⁷⁸ Yet, the US has lowered the proportion of infrastructure construction projects in its foreign aid portfolio.¹⁷⁹ The US supports capacity-building and improvement of the functionality of existing infrastructure.¹⁸⁰

Internet Connectivity

Starting with the Civil Service Computerization Program in 1980, Singapore embraced computer technologies very early, and was one of the first countries to have nation-wide broadband connectivity.¹⁸¹ After 30 years of development, the country has become a technology hub in

¹⁷³ Sutter, Schwarzenberg, and Sutherland, "China's 'One Belt, One Road' Initiative: Economic Issues."

¹⁷⁴ Ibid.

¹⁷⁵ Ibid.

¹⁷⁶ Dylan Gerstel, "It's a (Debt) Trap! Managing China-IMF Cooperation Across the Belt and Road," CSIS, accessed December 17, 2021, <https://www.csis.org/npfp/its-debt-trap-managing-china-imf-cooperation-across-belt-and-road>.

¹⁷⁷ Ibid.

¹⁷⁸ "Asia | Where We Work | U.S. Agency for International Development," USAID, January 21, 2021, <https://www.usaid.gov/where-we-work/asia>.

¹⁷⁹ Marian L Lawson and Emily M Morgenstern, "Foreign Assistance: An Introduction to U.S. Programs and Policy," April 30, 2020, 15-16.

¹⁸⁰ "Infrastructure," USAID, August 13, 2021, <https://www.usaid.gov/infrastructure>.

¹⁸¹ Government Technology Agency, "Our Journey," GovTech Singapore, December 17, 2021, <https://www.tech.gov.sg/who-we-are/our-journey/>.

Southeast Asia, ranked first in KPMG's survey for leading technology innovation hubs (outside of Silicon Valley).¹⁸² The government is now aiming for new digital advancements in both public and private sectors,¹⁸³ including Smart Nation initiative,¹⁸⁴ nationwide 5G coverage by 2023,¹⁸⁵ etc.

Other states such as Israel also realized the importance of internet connectivity early on. Recognizing the significance of digital infrastructure to national security as well as its potential vulnerability, Israel was "the first country ... to be prepared for a future cyber war."¹⁸⁶ Given a strong public-private partnership in the country, Israel's cybersecurity and surveillance market was estimated to have a size of \$10 billion before the government recently announced a drastic cut in cyber export.¹⁸⁷ In terms of patents and sheer research and development expenditures, they are only rivaled by the United States's Silicon Valley.¹⁸⁸

Although the benefits of internet connectivity include being part of a growing and easily accessible economy, the requisite infrastructure for internet access can often be cost-prohibitive for developing and least developed countries. When drafting recommendations for developing internet connectivity, delegates should consider the varied circumstances of nations and the role of the international community in financing, technology, and other realms.

¹⁸² "Singapore Tops 2021 Ranking for Leading Technology Innovation Hubs: KPMG Survey - KPMG Singapore," KPMG, July 16, 2021, <https://home.kpmg/sg/en/home/media/press-releases/2021/07/singapore-tops-2021-ranking-for-leading-technology-innovation-hubs-kpmg-survey.html>.

¹⁸³ Smart Nation Digital Government Group, "Digital Government Blueprint," June 2018.

¹⁸⁴ Smart Nation Digital Government Group, "Transforming SG Through Technology," Smart Nation Singapore, accessed December 17, 2021, <https://www.smartnation.gov.sg/about-smart-nation/transforming-singapore>.

¹⁸⁵ Government Technology Agency, "History of Internet in Singapore – from Niche Toy to Must-Have Essential," GovTech Singapore, August 12, 2021, <https://www.tech.gov.sg/media/technews/history-of-the-internet>.

¹⁸⁶ Isaac Ben, "How Did Israel Become a Global Cyber Power?," *Forbes Israel* (blog), June 28, 2021, <https://forbes.co.il/e/how-did-israel-become-a-global-cyber-power/>.

¹⁸⁷ Catalin Cimpanu, "Israel Restricts Cyberweapons Export List by Two-Thirds, from 102 to 37 Countries," *The Record*, November 25, 2021, <https://therecord.media/israel-restricts-cyberweapons-export-list-by-two-thirds-from-102-to-37-countries/>.

¹⁸⁸ Ruth Schuster, "The Day the Israeli Internet Industry Was Born," *Haaretz*, April 10, 2018, <https://www.haaretz.com/israel-news/business/.premium-the-birth-of-israeli-internet-1.5263267>.

Possible Solutions

In improving quality of life and human rights, infrastructure development is necessary for most of the population, and strategic investments in vehicles of commerce are necessary. This translates to public transportation, roads, rail, ports, and airports. Additionally, delegates should keep in mind any potential inequities that would prevent certain communities from benefiting from the development.

Public Transportation

Given the problems associated with traffic congestion, environmental pollution, and health concerns, alleviating traffic should be a public planning priority. Urban transportation in the 21st century is incredibly versatile. Consider the bus. Simply because of its simplicity, bus networks are found at many urban hubs. Even isolated islands have some form of bus or tram given the ease of access and ability to scale.¹⁸⁹ The benefits of urban public transportation are widely recognized as having the potential to make transit access more equitable and affordable.¹⁹⁰ Also, infrastructure investments often lead to economic growth and job creation. But with all transport, there are drawbacks. Public transit can often be delayed, crowded, inefficient, and sometimes unaffordable despite government subsidies.¹⁹¹ Additionally, governments are usually organizing public transit, which means budget constraints, corruption, and legislative delays can encumber growth. Delegates should also keep in mind that the network's stations determine what areas receive economic activity.¹⁹² If public transit centers around large populations, this can marginalize people in rural areas.

¹⁸⁹ "So You've Arrived in Palau – How Do You Get Around? | Palau Dive Adventures," Palau Dive Adventures, accessed December 17, 2021, <https://palaudiveadventures.com/how-to-get-around-in-palau>.

¹⁹⁰ Chicago Metropolitan Agency for Planning, "Transportation Equity," CMAP, accessed December 17, 2021, <https://www.cmap.illinois.gov/2050/mobility/transportation-equity>.

¹⁹¹ Vineet Abhishek, "Inadequate Urban Transportation Facilities Leave the Poor in India High and Dry," *Economic and Political Weekly*, July 20, 2020.

¹⁹² Lloyd Wright and Karl Fjellstrom, *Mass Transit Options, Sustainable Transport: A Sourcebook for Policy-Makers in Developing Cities: Vol.3a. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ): Eschborn, Germany. (2003)*, vol. 3a (Eschborn, Germany: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), 2003), 26, <http://www.sutp.org>.



Figure 5. Singapore Metro¹⁹³

Commuter Public Transportation

Commuter public transportation usually refers to commuter rail that runs within or between urban areas.¹⁹⁴ Although commuter rail has a much higher upfront investment cost than that of bus systems, it also has larger passenger capacity.¹⁹⁵ Whether a country should prioritize the construction of commuter rail or bus networks depends on its social contexts such as geography, conflict, corruption, and trade barriers.

Wealthy cities such as Doha in Qatar have invested in high-speed metro rail.¹⁹⁶ This is planned to open in time for the Association Football World Cup in Qatar.¹⁹⁷ Robust internal transportation system that allows easy movement for foreigners is a must for such a large event, which makes high-

¹⁹³ "Singapore MRT Pictures, Images and Stock Photos," IStock, accessed December 17, 2021, <https://www.istockphoto.com/photos/singapore-mrt>.

¹⁹⁴ Lloyd Wright and Karl Fjellstrom, *Mass Transit Options, Sustainable Transport: A Sourcebook for Policy-Makers in Developing Cities: Vol.3a. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ): Eschborn, Germany. (2003)*, vol. 3a (Eschborn, Germany: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), 2003), 2, <http://www.sutp.org>.

¹⁹⁵ Ibid, 16-23.

¹⁹⁶ Dimitris Sideridis, "The Gleaming Metro System Built under the Desert," CNN, November 3, 2021, <https://www.cnn.com/travel/article/qatar-doha-metro/index.html>.

¹⁹⁷ Ibid.

speed rail a favorable option. Realizing how green transport is critical to environmental protection, Qatar is using electric rail—which is exceedingly common for rail.¹⁹⁸ This investment has occurred concurrently to their economic shift away from natural resources.¹⁹⁹



Figure 6. Light Rail in Jerusalem²⁰⁰

Light Rail Transit (LRT)

When considering time-efficient and cost-effective solutions for traffic congestion and environmental responsibility, oftentimes light rail is seen as a viable candidate. Light rail is a relatively new form of transit that utilizes pre-existing roads and retrofits rail on top.²⁰¹ Light rail is built on existing roads and shares the same spaces as automobiles. Some light rail systems have dedicated underground tunnels and others operate in extremely confined spaces—such as compact roadways and areas with pedestrians. Many smaller American cities, like Seattle, Minneapolis, and

¹⁹⁸ Ibid.

¹⁹⁹ Ibid.

²⁰⁰ “Free Image on Pixabay - Dubai, Marina, U A E, Landscape,” accessed December 16, 2021, <https://pixabay.com/photos/dubai-marina-u-a-e-landscape-4760945/>.

²⁰¹ Lloyd Wright and Karl Fjellstrom, *Mass Transit Options, Sustainable Transport: A Sourcebook for Policy-Makers in Developing Cities: Vol.3a. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ): Eschborn, Germany. (2003)*, vol. 3a (Eschborn, Germany: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), 2003), 2, <http://www.sutp.org>.

Portland have implemented these recently. Research has found that the success and profitability of LRT would largely depend on a high level of ridership along the route and thus, the location of the LRT.²⁰² It is contested whether LRT systems improve traffic conditions because they function on the same roads as cars, however their environmental impact is clear: electric trains are far less hazardous to the environment.

Aviation Development

China has demonstrated the importance of airport expansion in domestic transit. The provinces of Tibet, Yunnan, Guizhou, Qinghai, and Xinjiang all have geographic conditions that make road construction prohibitive, which makes aviation more attractive.²⁰³ Air cargo and passenger traffic have increased 9 fold and 8 fold in volume, respectively, in the period of 1990-2005.²⁰⁴ Moreover, scholars have found that air infrastructure expansions in China during the 2000s likely led to significant economic growth in forms of increased “industrial output, productivity, and GDP.”²⁰⁵ Delegates may consider how aviation can connect hard-to-reach areas within a country, as well as its role in connecting the nation with the world.

Sea Commerce

There is no form of global commerce as historically relevant as sea trade. Yet despite these antique origins, the relevance of ocean travel could not be greater. Shipping is a cost effective, easily expandable, and environmentally friendly (when compared with road or air transport over equivalent journey traveled) solution for economic development.

China, being the largest Asian economy, has significant investments in ocean commerce. In 2008, 10% of the entire Chinese economy came from ocean commerce—bringing in hundreds of billions of

²⁰² Connor Harris, “A Light Rail Guide For Planners And Citizens” (Manhattan Institute, May 4, 2020), <https://www.manhattan-institute.org/economics-urban-light-rail>.

²⁰³ Shujie Yao and Xiuyun Yang, “Airport Development and Regional Economic Growth in China,” SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, February 1, 2008), 26, <https://doi.org/10.2139/ssrn.1101574>.

²⁰⁴ Ibid, 24.

²⁰⁵ Stephen Gibbons and Wenjie Wu, “Airports, Access and Local Economic Performance: Evidence from China,” *Journal of Economic Geography* 20, no. 4 (July 1, 2020): 903–37, <https://doi.org/10.1093/jeg/lbzo21>.

dollars.²⁰⁶ Establishment and expansion of ports can thus be economically significant for developing countries, although the issue of high upfront investment has to be addressed before any economic benefit can be reaped. Delegates may consider the assistance from international lenders such as the International Monetary Fund and the World Bank.

Opportunities for Investments and Political Stability

Recognizing the precarious developmental position of some countries, infrastructure development will also have to come through political stability. There are seldom institutions that will fund projects that could be delayed or unprofitable because of conflict. Unfortunately, preserving peace is not an easy task. Delegates can consider how regional collaboration can help accomplish this goal.

Another relevant issue is corruption in the recipient country. This is especially important for the lending parties. If any regional co-investment schemes are proposed, issues such as how to ensure the aid money be used properly should be considered.

Corporate Engagement

Recently, companies such as Uber and United have invested considerably into taxi drones, electric aircraft, and supersonic technology in the hopes of making aviation a widely efficient option for short to long-range transit.^{207,208} Some major firms currently estimate that these technologies will enter service by the 2030s.²⁰⁹ Facing the rapid development in transit and other infrastructure alike, governments should consider the impact of these technologies on the society and the environment, corresponding regulations, and the level of government support for these ventures.

²⁰⁶ Rui Zhao, Stephen Hynes, and Guang Shun He, "Defining and Quantifying China's Ocean Economy," *Marine Policy* 43 (January 1, 2014): 164–73, <https://doi.org/10.1016/j.marpol.2013.05.008>.

²⁰⁷ Phil LeBeau, "Uber Sells Its Flying Taxi Business," CNBC, December 8, 2020, <https://www.cnbc.com/2020/12/08/air-taxi-start-up-joby-acquires-uber-elevate-.html>.

²⁰⁸ Demetrius Simms, "United Airlines Is Buying 100 Zero-Emission Electric Planes From a Swedish Startup," *Robb Report* (blog), July 16, 2021, <https://robbreport.com/motors/aviation/united-airlines-100-electric-planes-from-swedish-1234625038/>.

²⁰⁹ Ibid.

Bloc Positions

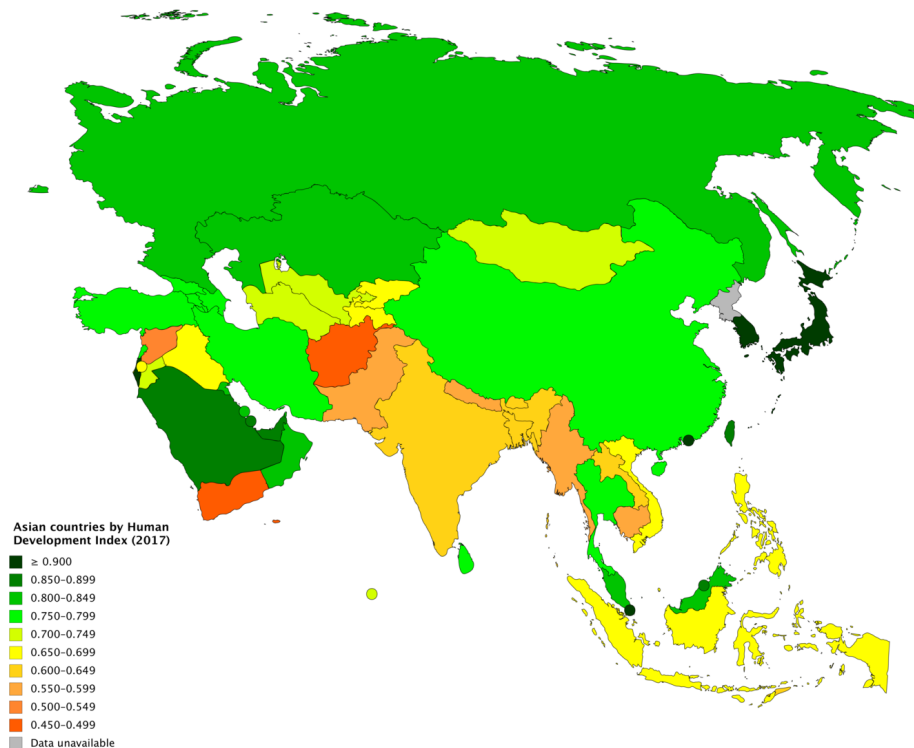


Figure 6. UN Human Development Index (2017 Asia)²¹⁰

Delegates should consider their position by reviewing their nation's development goals. Geography is one of the biggest factors influencing how nations approach hard infrastructure development since it is guided by access and proximity. Nations' futures in the global economy will be shaped by how they can engage with other states. For understanding your particular position, consider how geography limits and encourages economic activity. Bloc positions in these sections are sorted as such. Please note that these categories are neither exhaustive nor mutually exclusive. Consider the specific implications of each of these categories depending on the geographic and economic makeup of your country.

²¹⁰ Asus2004, English: A Choropleth Map Showing Asian Countries by Human Development Index, Based on 2019 Data from the 2020 Human Development Report., December 28, 2020, Own work, [https://commons.wikimedia.org/wiki/File:Asian_countries_by_HDI_\(2019\).svg](https://commons.wikimedia.org/wiki/File:Asian_countries_by_HDI_(2019).svg).

Diasporic Island Nations

These nations are defined here as islands that are separate from the mainland of Asia and are relatively difficult to access (so nations such as Singapore and Japan do not fall under this category). With island nations, road development has relatively limited economic impact given the small geographic scope of their territory. Islands have low population and as such have few to trade with. For those that are suffering under poor economic conditions, securing investments to these is paramount for their economic future.

War-torn States in the Middle East and Central Asia

With low income, war-torn countries such as Lebanon and Yemen, the first priority is being stable enough for institutions to trust investing in them. It is easy for infrastructure investors such as China, the Asian Infrastructure Investment Bank (AIIB), USAID, and the IMF to overlook these countries if they do not engage in appropriate dialogues and follow their direction. When there is conflict, investments in development are often lost or abandoned.

Gulf States

Many Gulf States, particularly in the Gulf Cooperation Council, have natural resources that have afforded them favorable economic development. Oil and natural gas is extremely profitable for governments that control large reserves. This has financed the Saudi Arabian Neom Project, the various luxury airlines of the Gulf (Emirates, Etihad, and Qatar Airways), and large R&D investments such as the Saudi King Abdullah University of Science and Technology. Economic cooperation in this region can also be facilitated through infrastructure projects such as building bridges that can connect two countries.

Additionally, the large investments in airlines by Gulf States are commensurately brilliant. They are creating aviation hubs in countries that have rarely before seen international visitors. Now the United Arab Emirates and Qatar both are major hubs connecting Europe to Asia. Wealthier states will want to bolster their relevance in the global economy by funding major projects—this has historically come in the form of airports, seaports, and large roadways.

Large Nations with Financial Capabilities

States such as China, Russia, and Australia are in a position where they can finance infrastructure projects both within their borders and surrounding. Domestically, infrastructure in rural regions is critical for large countries. Therefore, creating equitable access to infrastructure would be a huge focus. In terms of foreign investment, these countries may consider how to leverage their financial resources to promote national interests, while also anticipating push-back from the rest of the international community.

Least Developed and Developing Nations

Least developed nations are “low-income countries confronting severe structural impediments to sustainable development[,] highly vulnerable to economic and environmental shocks and [having] low levels of human assets”²¹¹ For developing nations, capital for infrastructure is a major hurdle. The ACD has historically focused on this issue but has yet to put forward any major resolution.

Because of the sheer size, Asia rarely sees international projects. For example, there are rarely collaborative projects in the proliferation of rail in Asia. Often new projects are centered exclusively within one country or even one city. Delegates may consider the possibility of infrastructure expansion improving multilateralism to assist in the expansion of cooperation and joint prosperity.

²¹¹ UN Department of Economic and Social Affairs Economic Analysis, “Least Developed Countries (LDCs) | Department of Economic and Social Affairs,” United Nations Department of Economic and Social Affairs Sustainable Development, accessed December 17, 2021, <https://www.un.org/development/desa/dpad/least-developed-country-category.html>.

Glossary

Broadband Internet: Rapid internet access capable of providing a lightning-fast connection to the world wide web.

Development: The improvement of a nation's economic vitality and standard of living. This comes in many forms including infrastructure, healthcare, jobs, housing, energy, and sustainability.

Globalism: The planning and investment into the economy on a global level or with a global perspective.

Hard Infrastructure: Roads, bridges, airports, broadband infrastructure, et al. Physically built to enable the movement of goods, people, and ideas.

Human Development Index (UN HDI): A development ranking produced annually by the UN that attempts to illustrate the prosperity and quality of life of each country.

Metro Rail: Trains designed to transport people and goods within a metropolitan area. Examples include the MTA of New York and the BART of the San Francisco Bay Area.

Nativism: Practices and rhetoric that excludes outsiders and promotes an 'in group'.

Soft Infrastructure: Services provided to a population to improve development and quality of life. Examples include healthcare, welfare, and family services.

Bibliography

- "Free Image on Pixabay - Dubai, Marina, U A E, Landscape." Accessed December 16, 2021.
<https://pixabay.com/photos/dubai-marina-u-a-e-landscape-4760945/>.
- "Hamas: The Palestinian Militant Group That Rules Gaza." *BBC News*, July 1, 2021, sec. Middle East.
<https://www.bbc.com/news/world-middle-east-13331522>.
- "Lebanon: The Israel-Hamas-Hezbollah Conflict," September 15, 2006.
<https://www.everycrsreport.com/reports/RL33566.html>.
- "Ocean Shipping and Shipbuilding - OECD." Accessed December 17, 2021.
<https://www.oecd.org/ocean/topics/ocean-shipping/>.
- "Our Journey." GovTech Singapore, December 17, 2021. <https://www.tech.gov.sg/who-we-are/our-journey/>.
- "PISA 2018 Results: Combined Executive Summaries," 2019.
https://www.oecd.org/pisa/Combined_Executive_Summaries_PISA_2018.pdf.
- "Recovery from the Asian Crisis and the Role of the IMF -- An IMF Issues Brief," June 2000.
<https://www.imf.org/external/np/exr/ib/2000/o62300.htm#box3>.
- "Singapore Exports of Goods and Services in % of GDP 2015 - 2019 | WITS Data." Accessed December 17, 2021.
<https://wits.worldbank.org/CountryProfile/en/country/SGP/startyear/2015/endyear/2019/indicator/NE-EXP-GNFS-ZS>.
- "Transforming SG Through Technology." Smart Nation Singapore. Accessed December 17, 2021.
<https://www.smartnation.gov.sg/about-smart-nation/transforming-singapore>.
- Abhishek, Vineet. "Inadequate Urban Transportation Facilities Leave the Poor in India High and Dry." *Economic and Political Weekly*, July 20, 2020, 7–8.
- Akinwotu, Emmanuel. "Music Mogul Akon Going Ahead with Futuristic 'Akon City' in Senegal." *The Guardian*, September 1, 2020, sec. World news.
<https://www.theguardian.com/world/2020/sep/01/music-mogul-akon-going-ahead-with-futuristic-akon-city-in-senegal>.
- Aljazeera. "In Pictures: Beirut Port Explosion, One Year On," August 4, 2021.
<https://www.aljazeera.com/gallery/2021/8/4/lebanon-beirut-port-explosion-one-year-on>.

- Arnott, Richard, and Kenneth Small. "The Economics of Traffic Congestion." *American Scientist* 82, no. 5 (1994): 446–55.
- ASEAN Secretariat. "ASEAN Key Figures 2020," December 2020. https://www.aseanstats.org/wp-content/uploads/2020/11/ASEAN_Key_Figures_2020.pdf.
- Asus2004. *English: A Choropleth Map Showing Asian Countries by Human Development Index, Based on 2019 Data from the 2020 Human Development Report*. December 28, 2020. Own work. [https://commons.wikimedia.org/wiki/File:Asian_countries_by_HDI_\(2019\).svg](https://commons.wikimedia.org/wiki/File:Asian_countries_by_HDI_(2019).svg).
- Atherton, Kelsey D. "Lebanon's Ruined Port Is a Nightmare to Rebuild." *Foreign Policy* (blog), August 19, 2020. <https://foreignpolicy.com/2020/08/19/lebanon-port-explosion-rebuild-nightmare-corruption-pandemic/>.
- Attard, Bernard. "The Economic History of Australia from 1788: An Introduction." EH.net. Accessed December 17, 2021. <https://eh.net/encyclopedia/the-economic-history-of-australia-from-1788-an-introduction/>.
- Australian Bureau of Statistics. "Feature Article - History of Roads in Australia (Feature Article)," January 25, 1974. <https://www.abs.gov.au/ausstats/abs@.nsf/0/2e904c15091c39a5ca2569de0028b416?OpenDocument>.
- Ben, Isaac. "How Did Israel Become a Global Cyber Power?" *Forbes Israel* (blog), June 28, 2021. <https://forbes.co.il/e/how-did-israel-become-a-global-cyber-power/>.
- Berg, Claudia N, Uwe Deichmann, Yishen Liu, and Harris Selod. "Transport Policies and Development," July 14, 2015, 11–15.
- Britannica. "Japan - Government and Society | Britannica." Accessed December 17, 2021. <https://www.britannica.com/place/Japan/Railways>.
- Britannica. "Persian Royal Road | Ancient Road, Asia | Britannica." Accessed December 17, 2021. <https://www.britannica.com/topic/Persian-Royal-Road>.
- Britannica. "Silk Road | Facts, History, & Map | Britannica." Accessed December 17, 2021. <https://www.britannica.com/topic/Silk-Road-trade-route>.
- CGTN. "China Has 130,000 Km of Highways, the Most in the World." The People's Republic of China State Council, August 27, 2017. http://english.www.gov.cn/news/top_news/2017/08/27/content_281475818432406.htm.

- Chehayeb, Kareem. "In Limbo': Beirut Blast Victims Still Struggling to Return Home," August 2, 2021. <https://www.aljazeera.com/news/2021/8/2/one-year-on-beirut-blast-victims-still-struggling-to-return-home>.
- Chicago Metropolitan Agency for Planning. "Transportation Equity." CMAP. Accessed December 17, 2021. <https://www.cmap.illinois.gov/2050/mobility/transportation-equity>.
- Cimpanu, Catalin. "Israel Restricts Cyberweapons Export List by Two-Thirds, from 102 to 37 Countries." *The Record*, November 25, 2021. <https://therecord.media/israel-restricts-cyberweapons-export-list-by-two-thirds-from-102-to-37-countries/>.
- Dash, Dipak K. "Global Traffic Congestion Ranking Has 3 Indian Cities in Top 10." *The Times of India*, January 14, 2021. <https://timesofindia.indiatimes.com/india/mumbai-bengaluru-delhi-in-top-10-world-cities-in-traffic-congestion-indicating-revival-of-economic-activities/articleshow/80246426.cms>.
- DW.COM. "Saudi Arabia Reforms: Royal Power Play or Meaningful Change? | DW | 27.06.2021." Accessed December 17, 2021. <https://www.dw.com/en/saudi-arabia-reform-royal-family/a-58017860>.
- Ekpenyong, Chris E., E. O. Ettebong, E. E. Akpan, T. K. Samson, and Nyebuk E. Daniel. "Urban City Transportation Mode and Respiratory Health Effect of Air Pollution: A Cross-Sectional Study among Transit and Non-Transit Workers in Nigeria." *BMJ Open* 2, no. 5 (January 1, 2012): e001253. <https://doi.org/10.1136/bmjopen-2012-001253>.
- Facebook, Twitter, Show more sharing options, Facebook, Twitter, LinkedIn, Email, Copy Link URL Copied!, and Print. "Opinion: There's Only One Way to Fix L.A.'s Traffic, and It Isn't Elon Musk's Tunnels. We Need Tolls — Lots of Them." *Los Angeles Times*, March 3, 2017. <https://www.latimes.com/opinion/livable-city/la-ol-traffic-toll-lane-freeway-20170303-story.html>.
- Farzan, Antonia Noori. "Akon Hasn't Even Built His First 'Futuristic' City yet, but Uganda Is Giving Him Land for a Second." *Washington Post*, April 6, 2021. <https://www.washingtonpost.com/world/2021/04/06/akon-city-uganda/>.
- Gerstel, Dylan. "It's a (Debt) Trap! Managing China-IMF Cooperation Across the Belt and Road." CSIS. Accessed December 17, 2021. <https://www.csis.org/npfp/its-debt-trap-managing-china-imf-cooperation-across-belt-and-road>.
- Gibbons, Stephen, and Wenjie Wu. "Airports, Access and Local Economic Performance: Evidence from China." *Journal of Economic Geography* 20, no. 4 (July 1, 2020): 903–37. <https://doi.org/10.1093/jeg/lbzo21>.

- Government Technology Agency. "History of Internet in Singapore – from Niche Toy to Must-Have Essential." GovTech Singapore, August 12, 2021.
<https://www.tech.gov.sg/media/technews/history-of-the-internet>.
- Harris, Connor. "A Light Rail Guide For Planners And Citizens." Manhattan Institute, May 4, 2020.
<https://www.manhattan-institute.org/economics-urban-light-rail>.
- International Chamber of Shipping. "Shipping and World Trade: Driving Prosperity." Accessed December 17, 2021. <https://www.ics-shipping.org/shipping-fact/shipping-and-world-trade-driving-prosperity/>.
- International Monetary Fund. "IMF Annual Report 2020 | What We Do | Lending," September 15, 2020. <https://www.imf.org/external/pubs/ft/ar/2020/eng/what-we-do/lending/>.
- Ioanes, Ellen. "Lebanon's Electricity Was down for a Day, but the Crisis Was Years in the Making." Vox, October 10, 2021. <https://www.vox.com/2021/10/10/22719115/lebanon-power-grid-collapse-beirut-crisis>.
- IPWEA. "How China Built the World's Largest Highway Network | IPWEA," March 22, 2021.
<https://insite.ipwea.org/how-china-built-the-worlds-largest-highway-network/>.
- IStock. "Singapore MRT Pictures, Images and Stock Photos." Accessed December 17, 2021.
<https://www.istockphoto.com/photos/singapore-mrt>.
- Jaffery, Rabiya. "Warming Temperatures & Decades of Oil Spills Cause Irreversible Damage to the Persian Gulf." Inter Press Service, August 10, 2020.
<http://www.ipsnews.net/2020/08/warming-temperatures-decades-oil-spills-cause-irreversible-damage-persian-gulf/>.
- Kingham, Simon. "Climate Explained: Does Building and Expanding Motorways Really Reduce Congestion and Emissions?" The Conversation, October 6, 2020.
<http://theconversation.com/climate-explained-does-building-and-expanding-motorways-really-reduce-congestion-and-emissions-147024>.
- KPMG. "Singapore Tops 2021 Ranking for Leading Technology Innovation Hubs: KPMG Survey - KPMG Singapore," July 16, 2021. <https://home.kpmg/sg/en/home/media/press-releases/2021/07/singapore-tops-2021-ranking-for-leading-technology-innovation-hubs-kpmg-survey.html>.
- Lawson, Marian L, and Emily M Morgenstern. "Foreign Assistance: An Introduction to U.S. Programs and Policy," April 30, 2020, 37.
- LeBeau, Phil. "Uber Sells Its Flying Taxi Business." CNBC, December 8, 2020.
<https://www.cnbc.com/2020/12/08/air-taxi-start-up-joby-acquires-uber-elevate-.html>.

- Ligt, Luuk de, and Laurens Ernst Tacoma, eds. *Migration and Mobility in the Early Roman Empire*. Vol. 23/7. Studies in Global Migration History. Brill, 2016. <https://brill.com/view/title/31880>.
- Lundmark, Pekka. "We Must Build Smart Villages and Towns, Not Just Smart Cities." World Economic Forum, October 11, 2021. <https://www.weforum.org/agenda/2021/10/smart-cities-we-also-need-smart-villages/>.
- Michaelson, Ruth. "'It's Being Built on Our Blood': The True Cost of Saudi Arabia's \$500bn Megacity." *The Guardian*, May 4, 2020, sec. Global development. <https://www.theguardian.com/global-development/2020/may/04/its-being-built-on-our-blood-the-true-cost-of-saudi-arabia-5bn-mega-city-neom>.
- Minevich, Mark. "How The US Can Learn About Successful Innovation Strategies From Israel, The Startup Nation." *Forbes*, May 29, 2020. <https://www.forbes.com/sites/markminevich/2020/05/29/how-the-us-can-learn-about-successful-innovation-strategies-from-israel-the-startup-nation/>.
- Moeller, Joachim, and Marcus Zierer. "The Impact of the German Autobahn Net on Regional Labor Market Performance: A Study Using Historical Instrument Variables." *SSRN Electronic Journal*, October 2014. <https://doi.org/10.2139/ssrn.2520748>.
- National Geographic Society. "Roman Aqueducts." National Geographic Society, July 6, 2018. <http://www.nationalgeographic.org/encyclopedia/roman-aqueducts/>.
- Nunno, Richard. "Fact Sheet | High Speed Rail Development Worldwide | White Papers | EESI." EESI, July 19, 2018. <https://www.eesi.org/papers/view/fact-sheet-high-speed-rail-development-worldwide>.
- OECD. "Education in China: A Snapshot," 2016. <https://www.oecd.org/china/Education-in-China-a-snapshot.pdf>.
- Ogden, Jeff. *English: A World Map Colored to Show the Level of Internet Penetration (Number of Internet Users as a Percentage of a Country's Population)*. April 24, 2012. Own work based on: figures from the Wikipedia:List of countries by number of Internet users article in the English Wikipedia, which is in turn based on figures from the International Telecommunications Union (ITU) for 2010 (updated to use figures for 2012 on 28 June 2013) (updated to 2016 on 5 Jan 2019). This SVG map includes elements that have been taken or adapted from this map: BlankMap-World6.svg. <https://commons.wikimedia.org/wiki/File:InternetPenetrationWorldMap.svg>.
- Palau Dive Adventures. "So You've Arrived in Palau – How Do You Get Around? | Palau Dive Adventures." Accessed December 17, 2021. <https://palaudiveadventures.com/how-to-get-around-in-palau>.

- Port Technology. "Jebel Ali Port in Dubai." *Al Fares Logistics* (blog), December 23, 2020. <https://alfareslojistik.com/en/jebel-ali-port-in-dubai/>.
- Prasain, Krishana. "Nepali Internet Users Getting Angrier over Bad Service." *The Kathmandu Post*, October 21, 2021. <https://kathmandupost.com/money/2021/10/21/nepali-internet-users-getting-angrier-over-bad-service>.
- Qadri, Mustafa, and Michael Eisner. "Opinion: Saudi Arabia Is Planning a Futuristic City of Clean Energy and Flying Taxis. Don't Build It with Abusive Labor Practices." *CNN*, July 13, 2021. <https://www.cnn.com/2021/07/13/opinions/saudi-arabia-neom-workers-eisner-qadri/index.html>.
- Rieffel, Lex. "The Myanmar Economy: Tough Choices," September 6, 2012. <https://www.brookings.edu/research/the-myanmar-economy-tough-choices/>.
- Rodrigue, Jean-Paul. "Length of the Interstate Highway System and of the Chinese Expressway System, 1959-2017 | The Geography of Transport Systems." *The Geography of Transport Systems*, May 26, 2020. <https://transportgeography.org/contents/chapter5/road-transportation/highway-length-china-united-states/>.
- Rollings, Jackson. "Saudi Arabia to Build \$500 Billion Mega-City on the Red Sea." *The Architect's Newspaper*, October 27, 2017. <https://www.archpaper.com/2017/10/saudi-arabia-neom-500-billion-mega-city/>.
- Rundell, David H. "Women Are Steering Saudi Arabia toward Revolutionary Change." *Text. TheHill*, October 28, 2021. <https://thehill.com/opinion/international/578902-women-are-steering-saudi-arabia-towards-revolutionary-change>.
- Schuster, Ruth. "The Day the Israeli Internet Industry Was Born." *Haaretz*, April 10, 2018. <https://www.haaretz.com/israel-news/business/.premium-the-birth-of-israeli-internet-1.5263267>.
- Scutt, David. "Here's Where Australia's Population Lives, and Where It's Growing the Fastest." *Business Insider Australia*, March 27, 2019. <https://www.businessinsider.com.au/australia-population-density-fastest-growing-regions-2019-3>.
- Sideridis, Dimitris. "The Gleaming Metro System Built under the Desert." *CNN*, November 3, 2021. <https://www.cnn.com/travel/article/qatar-doha-metro/index.html>.
- Simms, Demetrius. "United Airlines Is Buying 100 Zero-Emission Electric Planes From a Swedish Startup." *Robb Report* (blog), July 16, 2021. <https://robbreport.com/motors/aviation/united-airlines-100-electric-planes-from-swedish-1234625038/>.
- Smart Nation Digital Government Group. "Digital Government Blueprint," June 2018.

- Sowell, Thomas. *Wealth, Poverty and Politics*. Basic Books, 2016.
- Statista. "Leading Export Countries Worldwide in 2020." Accessed December 17, 2021. <https://www.statista.com/statistics/264623/leading-export-countries-worldwide/>.
- Sutter, Karen M, Andres B Schwarzenberg, and Michael D Sutherland. "China's 'One Belt, One Road' Initiative: Economic Issues." *Economic Issues*, January 22, 2021, 3.
- The World Bank Data. "Individuals Using the Internet (% of Population) - Israel | Data." Accessed December 17, 2021. <https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=IL>.
- UN Department of Economic and Social Affairs Economic Analysis. "Least Developed Countries (LDCs) | Department of Economic and Social Affairs." United Nations Department of Economic and Social Affairs Sustainable Development. Accessed December 17, 2021. <https://www.un.org/development/desa/dpad/least-developed-country-category.html>.
- UN News. "Bridging Asia-Pacific 'Digital Divide' Vital to Realize Tech Benefits," August 18, 2020. <https://news.un.org/en/story/2020/08/1070502>.
- UNCTAD. "Review of Maritime Transport 2018," October 3, 2018. https://unctad.org/system/files/official-document/rmt2018_en.pdf.
- UNDP, ed. *The next Frontier: Human Development and the Anthropocene*. Human Development Report 2020. New York, NY: United Nations Development Programme, 2020.
- USAID. "Asia | Where We Work | U.S. Agency for International Development," January 21, 2021. <https://www.usaid.gov/where-we-work/asia>.
- USAID. "Infrastructure," August 13, 2021. <https://www.usaid.gov/infrastructure>.
- Wolmar, Christian. "How Britain's Colonial Railways Transformed India." *Reconnecting Asia*, June 13, 2017. <https://reconasia.csis.org/how-britians-colonial-railways-transformed-india/>.
- World Bank. "Annual Report 2021." Accessed December 17, 2021. <https://www.worldbank.org/en/about/annual-report>.
- World Highways. "European Highway Construction Costs Evaluated," May 30, 2012. <https://www.worldhighways.com/news/european-highway-construction-costs-evaluated>.
- Wright, Lloyd, and Karl Fjellstrom. *Mass Transit Options. Sustainable Transport: A Sourcebook for Policy-Makers in Developing Cities: Vol.3a. Deutsche Gesellschaft Für Technische Zusammenarbeit (GTZ): Eschborn, Germany. (2003). Vol. 3a. Eschborn, Germany: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), 2003.* <http://www.sutp.org>.

Yao, Shujie, and Xiuyun Yang. "Airport Development and Regional Economic Growth in China." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, February 1, 2008. <https://doi.org/10.2139/ssrn.1101574>.

Zhang, Kai, and Stuart Batterman. "Air Pollution and Health Risks Due to Vehicle Traffic." *The Science of the Total Environment* 507 (April 15, 2013): 307–16. <https://doi.org/10.1016/j.scitotenv.2013.01.074>.

Zhao, Rui, Stephen Hynes, and Guang Shun He. "Defining and Quantifying China's Ocean Economy." *Marine Policy* 43 (January 1, 2014): 164–73. <https://doi.org/10.1016/j.marpol.2013.05.008>.