

Songdo City: *Blueprint or Black Sheep?*

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Cover Figure 1: Songdo City (kpf.com)



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Abstract

Songdo City in South Korea is arguably the most successful and technologically advanced smart city in the world. Located 50 kilometers from Seoul and only 15 minutes away from the Incheon International Airport, the South Korean government has made Songdo the cornerstone of its campaign to attract investment, drive innovation, and draw international attention to the country. Within 20 years, Songdo City has transformed from an uninhabited wetland to a \$40 billion metropolis with glimmering skyscrapers and world-class amenities. It has been variously hailed as an urbanist and environmentalist triumph, but

also criticized for its top-down implementation and monumental scale. With a population approaching 200,000, Songdo is simultaneously a world leader in new smart city development but has fallen far short of their goal of hosting 500,000 residents by 2020. This paper explores the past, present, and future of Songdo City and the successes and shortcomings of the Songdo International Business District (IBD), which serves as the anchor of the broader Incheon Free Economic Zone. The research is organized under three broad themes: Governance, Built Environment, and Industry & People.

Introduction

Songdo City is part of a long tradition of the South Korean state having a heavy-handed role in economic development while still engaging in meaningful partnerships with the private sector. In this section, I explore the broader historical context of Korea and its development of new cities and its investment in special economic zones. I then go on to discuss the transformation of Songdo City, from a reclaimed wetland to a shining metropolis.

Korean History

Korea was a small, isolated, and poor country for much of the 20th century. During Japanese colonization, there were incremental efforts at modernization starting in 1910, with the construction of essential infrastructure and the introduction of heavy industry, such as mining and production of chemicals, all concentrated in the North¹. The development strategies of this period, inspired by Japan's domestic economic success, were similar to the strategies later used by the South Korean government after the Korean War: a strong, centralized government, extensive private sector collaborations, and emphasis on education and work.

After World War II, the Japanese relinquished control of Korea to the United States and the Soviet Union, who set up competing governments in the South and North, respectively. This led to political conflict and the eventual outbreak of the Korean War in 1950. Three years of fighting devastated the whole country and destroyed much of the infrastructure and industry left behind by the Japanese. By the early 1960s, both North and South Korea remained among the poorest countries in the world, with GDP per capita falling to \$94, comparable to Bangladesh, and well below that of the Philippines (\$278) or Ghana (\$184)².



Figure 2: Seoul street in 1965 (Business Insider)³

¹ countrystudies.us. "South Korea - the Japanese Role in Korea's Economic Development," n.d. <https://countrystudies.us/south-korea/46.htm> (Accessed February 15, 2024)

² World Bank Open Data. "GDP per capita (current US\$)", World Bank, 2023. https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?end=1961&most_recent_value_desc=true&start=1960

³ Wile, Rob. "Old 1960s Photos of Seoul, Korea," *Business Insider*, April 4, 2013. <https://www.businessinsider.com/old-1960s-photos-of-seoul-korea-2013-4>

Growth in South Korea lagged behind growth in North Korea between the years 1953 and 1970. Pre-war industrial development was concentrated in the North, and the North's communist allies, the Soviet Union and China, provided extensive aid and subsidies. Crucially, North Korea's totalitarian regime, though a clear disaster for long-term growth, far outpaced South Korea's fledgling democratic system by adopting what seemed to be a highly organized economic development and industrialization effort.

By contrast, South Korea suffered from rampant corruption, instability, and mismanagement, even with extensive aid from the United States. US aid accounted for upwards of 80% of government revenue during the 1950s, and much of the country's modest economic growth can be attributed to foreign dollars being circulated within the country⁴. However, amid South Korea's stagnation and suffering, the groundwork for a stunning turnaround was being laid through an explosive demand for education and a crystallizing national sentiment to *win* at all costs.

Post- Korean War Growth

As the 1960s began, South Korea entered a period of unusually tumultuous social and political change. Syngman Rhee, South Korea's first and only president until that point was forced to step down in the face of widespread pro-democracy protests now known as the April Revolution. Korea briefly experimented with a parliamentary style of government and elected a prime minister. However, a military coup put an end to the democratic system in 1961, and South Korea lived under various forms of military rule until 1987. During this time the country suffered from repressive social control while enjoying miraculous economic growth, a dual legacy that is just as controversial today as it was generations ago.

The government replaced import substitution industrialization (ISI) with a hybrid, private-led, and

⁴ Seth, Michael J. "An Unpromising Recovery: South Korea's Post-Korean War Economic Development: 1953-1961," *Association for Asian Studies*, 18 no.3, 2013. <https://www.asianstudies.org/publications/eaa/archives/an-unpromising-recovery-south-koreas-post-korean-war-economic-development-1953-1961/>

⁵ Ibid

export-oriented strategy modeled after the Japanese system⁵. While foreign imports were still restricted, a handful of private companies, known as *chaebol*, were "chosen" to lead entire industries, domestically and internationally, through a battery of government incentives, investments, and protections. For example, Hyundai led the construction and automotive industries, Samsung dominated commercial goods and electronics, and Lotte was responsible for the country's food production and retail outlets.

Another important undertaking by the post-war government, especially after 1960, was the rebuilding of cities and infrastructure devastated by war and poverty. Land readjustment, a process where a cash-strapped government can acquire and develop land at low cost, proved to be a key tool in building a modern city with modern amenities⁶. The centralized and autocratic government had the capacity, latitude, and power to push ambitious development agendas. For example, President Park Chung Hee, who was inspired by a 1964 visit to Germany's Autobahns, promised to construct a 430-kilometre highway connecting Seoul with the southernmost city of Busan in 1967, which was completed three years later⁷. These projects stimulated economic development, but more importantly, a growing optimism and pride in a strong, prosperous, and modern South Korea.

As South Korea's economic prospects improved, positive social changes also began to materialize. A country with a 22% literacy rate in 1945 experienced a stunning explosion in the quality and quantity of human capital. Twenty-five years later, the literacy rate had improved to a staggering 88% in 1970⁸. Yearly

⁶ "The government pools or assembles the various privately owned land parcels in a given area [...] it then implements the plan and provides the necessary trunk infrastructure. At the end of the process, the government returns to each landowner a land parcel proportional to their original parcel but of smaller size [which is now valued higher]." web.archive.org. "Land Readjustment | Urban Regeneration," *The World Bank*, (n.d.). <https://web.archive.org/web/20230714145526/urban-regeneration.worldbank.org/node/31> (Accessed February 15, 2024)

⁷ Chihyung, Jeon. "A Road to Modernization and Unification: The Construction of the Gyeongbu Highway in South Korea," *Technology and Culture*, vol. 51, no. 1(2010): 55–79. <http://www.jstor.org/stable/40646992> (Accessed 30 June 2023)

⁸ Wong, Karen. "Diversity and Access to Education." *Education in South Korea*, (n.d.). <https://sites.mii.edu/southkoreaeducation/>

GDP growth hovered around 7-12% for much of the second half of the 20th century⁹. Life expectancy *doubled* between 1950 and 1988, from 35 to 70 years¹⁰. South Korea, along with the other Asian “tigers” – Hong Kong, Singapore, and Taiwan – presided over a generation of economic growth of unprecedented magnitude.

Seoul hosted the Summer Olympics in 1988, an event that was viewed both domestically and internationally as a watershed moment for South Korea. Here was a country devastated by war a mere 30 years ago, beset by social and political turmoil, which had culminated in nationwide pro-democracy protests only a year before the Olympic Opening Ceremony¹¹. Regardless, the South, perhaps riding a broader trend of socialist decline and “end of history” optimism, declared unmistakably to the world that it had surpassed its northern neighbor and triumphantly entered the First World¹².



Figure 3: Korea at the 1988 Olympic Games (Korea Times)¹³

diversity-and-access/ (Accessed February 15, 2024)

⁹ World Bank Open Data. “GDP per capita (current US\$).”

¹⁰ Macrotrends. “South Korea Life Expectancy 1950-2024.” Macrotrends.net, 2019. <https://www.macrotrends.net/countries/KOR/south-korea/life-expectancy> (Accessed February 15, 2024)

¹¹ For more information on the June Democracy struggle, see Lakey, George. “South Koreans win mass campaign for democracy, 1986-87,” *Global Nonviolent Action Database*, 2009. <https://nvdatabase.swarthmore.edu/content/south-koreans-win-mass-campaign-democracy-1986-87>.

¹² Radchenko, Serbey. “Sport and Politics on the Korean Peninsula - North Korea and the 1988 Seoul Olympics,” *Wilson Center*, n.d. <https://www.wilsoncenter.org/publication/sport-and-politics-the-korean-peninsula-north-korea-and-the-1988-seoul-olympics> (Accessed February 15, 2024)

¹³ VanVolkenburg, Matt. “What foreign journalists saw covering 1988 Olympics,” *The Korea Times*, July 7, 2018. https://www.koreatimes.co.kr/www/nation/2024/02/113_243668.html

South Korean New Cities

Due to the widespread destruction of the Korean War, the South Korean government engaged in new city building from the very beginning of the country's foundation. Yet, even with continuous infusions of international aid, development came slowly. War and poverty brought an influx of new residents to Seoul, with the capital's population tripling from 2.5 million in 1960 to 8 million by 1980¹⁴. They were attracted by the prospect of new industrial and manufacturing jobs that were heavily emphasized in the first and second five-year plans implemented between 1962 and 1971, which supercharged South Korea's transformation from a primarily agricultural to an industrial nation¹⁵. However, a young and rebuilding city did not have the infrastructure to deal with this surge of residents. By the 1960s, half of all housing in the city consisted of illegal tenements without basic amenities that were vulnerable to natural disasters¹⁶. South Korean urban policy, then and now, is dominated by discussions on how to deal with a stubbornly persistent concentration of people, power, and resources in Seoul. Even today, approximately 25 million, or 50%, of South Koreans live in the Seoul metropolitan area¹⁷.

There were two primary solutions implemented by the South Korean government to remedy this problem. The first solution was the hyper-efficient use of space. Not only was the population booming and concentrated in Seoul, but there was little land to accommodate them as the capital city is crisscrossed with rivers and mountains (much like the rest of the country)¹⁸. While these topics are outside of the scope of this paper, the success of South Korean high-rise housing, robust public transportation policies, aggressive urban redevelopment, and dense, mixed-use neighborhoods deserves further study¹⁹. Many of these elements directly influenced and shaped the second solution, new cities. Indeed, only with the government's expertise in ambitious projects and mass construction at scale could it have conceived of such ambitious plans as that for Songdo City.

New city building in Korea, according to Lee et al.²⁰, can be divided into five phases (see Figure 4 below). These phases can be grouped further into three distinct categories. In Phase I, new towns, such as Ulsan and Pohang, were built to support new industries, including chemical and manufacturing. Phases II-IV aimed to alleviate housing demand in Seoul, building satellite cities such as Bundang and Ilsan, dominated by high-rise apartments. Phase V, currently in progress, is attempting to foster equitable regional development, stimulate new business, and experiment with smart city technologies in areas outside of Seoul.

¹⁴ Mobrand, Erik. "Struggles over Unlicensed Housing in Seoul, 1960-80," *Urban Studies* 45 no. 2 (2008): 367-89. <http://www.jstor.org/stable/43197757>

¹⁵ Chung, Kae H. "Industrial Progress in South Korea," *Asian Survey* 14, no.5 (May 1974): 439-55. <https://doi.org/10.2307/2642849>

¹⁶ Kang, Myounggu. "Seoul Experience on Slum Upgrading."

서울정책아카이브, *Seoul Solution*, September 25, 2017. <https://www.seoulsolution.kr/en/content/7471>

¹⁷ Korean Culture and Information Service. "South Korea – Summary: Korea.net: The Official Website of the Republic of Korea," www.korea.net, n.d. <https://www.korea.net/AboutKorea/Society/South-Korea-Summary> (Accessed February 16, 2024)

¹⁸ Ibid.

¹⁹ See: Park, K.H. "Housing Policy in the Republic of Korea," *Asian Development Bank*, April, 2016. <http://www.adb.org/publications/housing-policy-republic-korea/>; Pucher, John, Hyungyong Park, Mook Kim, and Jumin Song. "Public Transport Reforms in Seoul: Innovations Motivated by Funding Crisis," *Journal of Public Transportation* 8, no. 5 (December 2005): 41–62. <https://doi.org/10.5038/2375-0901.8.5.3>

²⁰ Lee, Sang Keon, Heeyoun You, and Heeseo Rain Kwon. "Korea's Pursuit for Sustainable Cities through New Town Development: Implications for LAC," *Publications.iadb.org*, June 1, 2015. <https://publications.iadb.org/en/koreas-pursuit-sustainable-cities-through-new-town-development-implications-lac-knowledge-sharing>

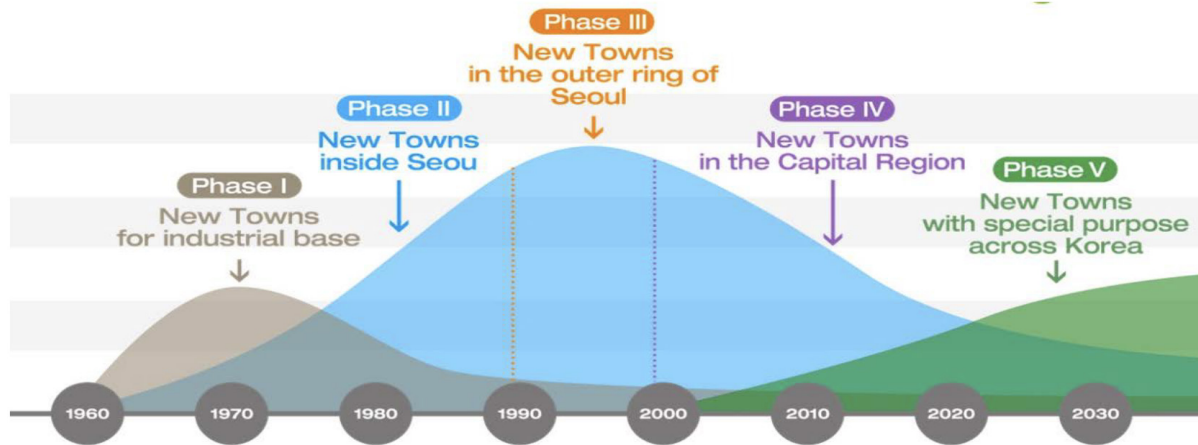


Figure 4: Stages of New City Construction (Lee et al., 2016)²¹

While these new developments, especially through Phases I-IV, were planned to create something more akin to suburbs than independent cities, their size and scale meant that they operated functionally as if they were²². In any case, the practices and strategies used in their development were a clear precedent to the development of explicitly new cities such as Songdo²³.

Other than Songdo City, there have been a few other notable new cities that have been planned and built in Phase V. The most important of these is Sejong City, which began construction in 2007 and has been serving as South Korea's "administrative capital" over the last decade²⁴. Though Sejong is intended to achieve many of the same goals and shares characteristics with Songdo, including a "smart" city emphasis, a desire to attract foreign investment and innovation, and a focus on public amenities such as extensive parks, it was built for a fundamentally different reason; to pull political, economic, and social capital away from Seoul. Located 110 km south of Seoul, Sejong City was seen as a way to redistribute

the city's population, encourage development outside of the Seoul metropolitan area, and better defend the country's important institutions against a North Korean attack – Seoul is only 50 kilometers from the North Korean border.

However, the city is arguably worse off than Songdo City for a number of key reasons. Firstly, while it was anticipated that Sejong City would eventually become South Korea's official capital, over time, and after fierce controversy, it was downsized to become an administrative hub. Even today, only 10 out of the government's 18 ministries have relocated²⁵. Sejong's prospects have been disproportionately affected by the changing policies of the President and National Government. Secondly, the city is widely considered to be poorly designed. For example, there is a surprising lack of public transit that enables travel to and within Sejong City, leading to a reliance on cars, and a lack of affordable housing, with most housing being expensive, family-oriented apartments²⁶. Finally, these reasons, combined with the typical growing pains associated with new cities, including lack of amenities and a sense of community, has meant that Sejong City has struggled to attract a stable population base. Many workers prefer to commute two hours from Seoul or an outlying area.

²¹ The five new "towns" in Phase III alone were built to house more than one million people. (Lee, Sang Keon, Kwon, Heeseo Rain, Cho, HeeAh, Kim, Jongbok and Donju Lee. "International Case Studies of Smart Cities: Songdo, Republic of Korea." IDB Publications, June, 2016. <https://publications.iadb.org/en/international-case-studies-smart-cities-songdo-republic-korea>

²² New Cities Map. Charter Cities Institute. <https://newcitiesmap.com/>

²³ Lee et al., "International Case Studies".

²⁴ Flamm, Patrick. "Sejong City: The story of South Korea's back-up capital," Asia Media Centre, May 23, 2019. <https://www.asiamediacentre.org.nz/features/sejong-city-the-story-of-south-koreas-back-up-capital/>

²⁵ Babe, Ann. "Sejong, South Korea's New Administrative Capital City, Draws Critics." U.S. News & World Report, 2019. <https://www.usnews.com/news/cities/articles/2019-06-04/sejong-south-koreas-new-administrative-capital-city-draws-critics>

²⁶ Ibid.

Despite this, President Yoon Suk Yeol has made continued investment in Sejong City a priority of his administration, pledging to build a new National Assembly building, Presidential office, and public transit connections, as well as designate the area a new free economic zone²⁷. Similar to Songdo City, the case of Sejong City illustrates the costs and benefits of South Korea's extremely aggressive and top-down governing strategy. Put simply, the government can, and will, embark on ambitious projects; whether or not these projects succeed is a different matter. Further research is required to better understand and analyze Sejong City.



Figure 5: Sejong City (Asia Media Centre)²⁸ & Map of Korea (Sejong City)²⁹

Smaller smart city pilots have also been built across the country, with Busan's Eco Delta Village being a prominent example. The city and government bodies partnered with tech companies, led by Samsung, to develop 54 homes fully integrated with smart technology, with plans for a \$5.6 billion, 30,000 home master-plan in the works³⁰. Busan has also announced in 2022 the planned construction of the world's first "floating city," where flood-proof platforms will house 12,000 residents within self-sustaining, circular, and environmentally-friendly communities³¹. Projects such as these serve as vital testing labs for new technology and urban strategies that can be applied in other cities within South Korea, as well as abroad.

²⁷ Lee, Hee-taek, and Da-somi Kim. "윤석열 대통령 취임 1주년... '세종시 7대 공약' 어디에." 디트뉴스, 2023. <https://www.dtnews24.com/news/articleView.html?idxno=745407>

²⁸ Flamm, "Sejong City".

²⁹ www.sejong.go.kr. "Investment Environment." n.d. 세종특별자치시, (n.d.). https://www.sejong.go.kr/eng/sub02_010102.do;jsessionid=0316F4212020F8C767FFFAD2D3747AA9.portal1 (Accessed February 18, 2024)

³⁰ Belcher, David. "A New City, Built upon Data, Takes Shape in South Korea." *The New York Times*, March 28, 2022. <https://www.nytimes.com/2022/03/28/technology/eco-delta-smart-village-busan-south-korea.html>

³¹ unhabitat.org. "UN-Habitat and Partners Unveil OCEANIX Busan, the World's First Prototype Floating City | UN-Habitat," 2022. <https://unhabitat.org/news/27-apr-2022/un-habitat-and-partners-unveil-oceanix-busan-the-worlds-first-prototype-floating>



Figure 6: Pictures of the Eco Delta Smart Village neighborhood and home interior (New York Times)³²



Figure 7: Rendering of OCEANIX's floating city prototype in Busan (Newsweek)³³

³² Belcher, "A New City".

³³ Kim, Soo. "South Korea's Oceanix Busan: All We Know About World's First Floating City," *Newsweek*, April, 27, 2022. <https://www.newsweek.com/worlds-first-floating-city-oceanix-busan-south-korea-sustainability-rising-sea-levels-1701389>

South Korean Free Economic Zones

South Korea's Free Economic Zones (FEZs) were started in 2003 to boost the country's position as an international destination of investment and business. Modeled after Special Economic Zones (SEZs) such as those introduced in China during 1980s, FEZs are geographic regions with special rules, incentives, and liberties that are functionally independent of a country's broader economic and trade policies. FEZs can primarily be seen as a reaction to the 1997 Asian financial crisis as an attempt to attract stable and consistent foreign direct investment (FDI) and make South Korea resistant to capital flight and economic downturns³⁴. This marked a fundamental shift towards economic liberalization in the South Korean development strategy, which traditionally relied on export promotion and domestic protection to support local industries³⁵. Since 2003, when Incheon/Songdo became host to the first FEZ, there have been eight more zones designated across the country that by 2020 had attracted \$178 billion in FDI and 6,000 multinational firms³⁶. The government recently reaffirmed its commitment to these zones, setting a goal of attracting another \$77 billion in investment and the creation of 450,000 additional jobs by 2032³⁷.

Benefits of FEZs for investors include relaxed labor laws, regulations, and reduced tax burdens for companies willing to relocate and/or invest in South Korea (see Table 1 below). What sets the South Korean model apart is a total commitment to becoming a truly international hub not only for business, but for living as well. FEZs, especially Songdo, aim to attract wealthy, foreign, and English-speaking residents through a carefully curated environment with world-class amenities and frictionless living³⁸. The built environment of Songdo City, as I explore in depth later, explicitly replicates elements of other cities to provide a sense of familiarity to its residents; these include a 'central park' reminiscent of that in Manhattan and a system of canals inspired by those found in Europe³⁹.

Foreign-invested companies in an KFEZs			
Category		Benefits	Investment Requirements
National tax	Tariff	100% exemption for 5 years	Imported capital goods only
Local tax	Acquisition tax	100% tax exemption for up to 15 years in accordance with local ordinances	
	Property tax	Tax reductions for up to 15 years in accordance with local ordinances	
Developer			
Category		Benefits	Investment Requirements
National tax	tariff	100% exemption for 5 years	Imported capital goods only
Local tax	Acquisition tax	100% tax exemption for up to 15 years in accordance with local ordinances	Foreign investment of over \$30 million or a foreign investment ratio of over 50%, and a total development project cost of over \$500 million development
	Property tax	Tax reductions for up to 15 years in accordance with local ordinances	Foreign investment of over \$30 million or a foreign investment ratio of over 50%, and a total development project cost of over \$500 million development

Table 1: FEZ Benefits (Korean Free Economic Zones)⁴⁰

³⁴ Lee, Changwon. "Development of Free Economic Zones and Labor Standards: A Case Study of Free Economic Zones in Korea," *Korea Labor Institute*, 2005. https://ecommons.cornell.edu/bitstream/handle/1813/89761/Development_of_FreeEFZ_KOREA_by_Lee.pdf?sequence=1

³⁵ Neoliberal and austerity policies were mandated by the IMF as a condition for Korea's \$58 billion bailout.

³⁶ "www.fez.go.kr. "KFEZ Introduction - Korean Free Economic Zones," n.d. <https://www.fez.go.kr/portal/en/introduction.do> (Accessed January 28, 2024)

³⁷ Yonhap. "S. Korea eyes W100tr of investment in free economic zones by 2032," *The Korea Herald*, June 29, 2023. <https://www.koreaherald.com/view.php?ud=20230629000332>

³⁸ Rugkhanan, Napong Tao, and Martin J. Murray. "Songdo IBD (International Business District): Experimental Prototype for the City of Tomorrow?" *International Planning Studies* 24 no. 3-4(2019): 272-92. doi.org/10.1080/13563475.2019.1650725

³⁹ Kim, Jung In. "Making Cities Global: The New City Development of Songdo, Yujiapu and Lingang." *Planning Perspectives* 29 no. 3 (2013): 329-56. doi.org/10.1080/02665433.2013.824370.

It is difficult to assess the effectiveness of FEZs in bringing new investment and attention to South Korea. There has been little research around the topic and existing literature is mixed on the issue. Lee⁴¹ and Koh⁴² contend that while FEZs have not lived up to the initial promises made by the government, progress was being hampered by restrictive regulations that disincentivized investment. Lim⁴³ paints a more pessimistic picture of a total failure by the government to bring multinational corporations into the zones⁴⁴. However, publicly available documents and articles published within the last few years have taken a decidedly more positive tone. An article from 2021 framed the Incheon FEZ as “a successful case of local economic development,” with high-quality infrastructure, growing business footprint, and the capacity to attract world-class events such as the World Education Forum⁴⁵. A government-sponsored white paper stated that Korean Special Economic Zones have been an “exemplary” model for developing countries, though noting earlier iterations of the policy (such as the 1970 Masan Export Processing Zone) have been more successful than recent FEZs⁴⁶. The paper stated that logical locations, strong governmental and private sector buy-in, and good timing are the hallmarks of successful zones, while oversaturation caused by designating too many areas, shifting policy priorities, declining investment, and lack of a coherent vision have all negatively affected recent FEZs in particular⁴⁷.

Songdo City, as the keystone of South Korea’s first and most prominent FEZ, illustrates many of the promises and pitfalls of the FEZ strategy. In the following sections, I explore the past, present, and future of Songdo City, and its implications for new city planning across the world.

Songdo City

Though firmly established as an economic miracle story by the turn of the 21st century, South Korea was still reeling from the 1997 Asian Financial Crisis that left the country questioning how secure its hard-won growth really was. As such, South Korea fostered a burning desire to become a self-sustaining and globalized economy that was better equipped to weather economic crises⁴⁸. This vision was manifested in the unprecedented and audacious effort to build a world-class city completely from scratch. Songdo City, regardless of its current status or potential legacy, can only be fully appreciated in its ambition and execution from idea to reality.

Building Songdo City

The construction of Songdo was officially announced in 2002, but it was the groundwork laid by various actors decades before that made the project possible. Talks on the reclamation of the Songdo tidal flat began as early as 1961, and the neighboring Incheon City, with the support of the central government, began explicitly pushing

⁴⁰ www.fez.go.kr. “KFEZ Introduction - Korean Free Economic Zones.”

⁴¹ Lee, Young. “International Development and Free Economic Zone: The Case of the Incheon Free Economic Zone in South Korea,” PhD diss. (Saint Louis University, 2011.) <https://www.proquest.com/dissertations-theses/international-development-free-economic-zone-case/docview/883993166/se-2>

⁴² Koh (2014)

⁴³ Lim, Sung-Hoon. “Regional Headquarters Inducement Strategy of South Korea’s Free Economic Zones: The Pursuit of a Premier Business Hub in Northeast Asia,” *Issues & Studies* 48 no. 3 (2012): 185-210. [https://doi.org/10.7033/ISE.201209_48\(3\).0006](https://doi.org/10.7033/ISE.201209_48(3).0006)

⁴⁴ These sources can be seen as outdated, especially due to their proximity to the start of FEZs (2003). However, there was a curious lack of scholarly articles on the topic published within the last five years, making them the most relevant and authoritative sources I could find.

⁴⁵ Eukliadias, Martínez. “Incheon Free Economic Zone: a successful case of local economic development in South Korea,” *Tomorrow.City*, April 22, 2021.

<https://tomorrow.city/a/incheon-free-economic-zone-a-successful-example-of-local-economic>

⁴⁶ Jeong, Hyung-Gon, and Jong-Hun Pek. “Special Economic Zones: What Can Developing Countries Learn from the Korean Experience?,” *Knowledge Sharing Program: KSP Modularization*, 2016. https://www.ksp.go.kr/api/file/download/11456?downloadFilename=2016_03+Special+Economic+Zones+What+Can+Developing+Countries+Learn+from+the+Korean+Experience.pdf

⁴⁷ Ibid.

⁴⁸ South Korea also has made a concerted effort to become recognized as a cultural powerhouse. These “soft power” efforts, such as investments into K-pop and media, have been undeniably successful (Adams, Tim. “K-everything: the rise and rise of Korean culture,” *The Guardian*, September 4, 2022, <https://www.theguardian.com/world/2022/sep/04/korea-culture-k-pop-music-film-tv-hallyu-v-and-a>

for a new “city of the future” by 1988⁴⁹. Incheon City had already begun land reclamation in 1994, though construction was delayed until 2003 due to the Asian Financial Crisis⁵⁰. The city was eager to create a globally oriented city to complement the newly built Incheon International Airport, which opened in 2001 and is widely considered one of the best in the world⁵¹.

The construction project began through a partnership between Gale International, a US-based real estate developer, and POSCO Engineering and Construction, a subsidiary of South Korea’s largest steel-making company. This was the first time in South Korean history that such a large-scale project was to be planned and implemented by the private sector, let alone one of foreign origin⁵². For a country desperate to attract foreign investment, however, it was essential to partner with a prominent firm such as Gale International, which promised to source over \$6 billion in direct investment into Songdo City⁵³. The announcement of the Songdo project was accompanied by the creation of the Incheon Free Economic Zone (IFEZ) and provided a range of incentives for Songdo City and other smaller developments, but not for the city of Incheon itself⁵⁴.

	Public Sector	Private Sector
Expectations	<ul style="list-style-type: none"> - Creation of an international business district - Attraction of FDI 	<ul style="list-style-type: none"> - Development opportunity - Full government support
Obligations	<ul style="list-style-type: none"> - Land supply - Provision of infrastructure work and public facilities - Provision of approvals and permits - Designation of the area as an FEZ 	<ul style="list-style-type: none"> - Development in compliance with the master plan and the development schedule - Financing of FDI - Donations of some public facilities (central park, Convention Center)
Tasks	<ul style="list-style-type: none"> - Land reclamation and sale - Construction of infrastructure and public facilities - Review and approval of the master plan and the implementation plan - Policy support on FEZs - Monitoring and project management 	<ul style="list-style-type: none"> - Land acquisition - Preparation of the master plan and the implementation plan - Land and real estate development - Financing - Regular progress reporting

Table 2: Public and Private Sector Roles in Songdo⁵⁵

⁴⁹ Unfavorable and mountainous terrain combined with extraordinary demand pressures makes developable land a precious commodity in South Korea, especially around Seoul. (Jeon, Hai Ri (Sophia). “How South Korea’s Incheon Smart City Makes Forgotten Inequalities Visible.” *Journal of International Affairs* 74, no. 1 (2021):261-284. <https://www.jstor.org/stable/27169783>)

⁵⁰ Ibid.

⁵¹ Lee, Yeong Heok, and Jae Hee Lee. “Incheon International Airport: Its Success and Implications for Developing Countries,” n.d. <https://www.kdevelopedia.org/Development-Topics/themes/--12> (Accessed 20 July 2023)

⁵² Kim, Yoon Jung, and Mack Joong Choi. “Contracting-out public-private partnerships in mega-scale developments: The case of New Songdo City in Korea,” *Cities*, February, 2018. <https://doi-org.proxy.library.upenn.edu/10.1016/j.cities.2017.07.021>

⁵³ Sonn, Jung Won, HaeRan Shin, and Se Hoon Park. “A mega urban project and two competing accumulation strategies: negotiating discourses of the Songdo International Business District development.” *International Development Planning Review* 39, no. 3 (2017): 299-317.

The essential terms of the agreement signed in 2001 were that the government would build the infrastructure and provide a range of incentives, including the designation of an FEZ, and the developer would build on the reclaimed land⁵⁶. Gale International and POSCO created the New Songdo International City Development (NSIC) partnership in 2002 and, after years of planning and securing financing, broke ground in spring 2005. Most of the early developments centered around basic infrastructure or “quality of life projects.” The government constructed new bridges, highways, and subway lines, while Gale International began construction of a convention center, central park, school, and residential towers. This was possible through a series of four financing rounds from 2003-2007, as well as successful pre-sales of Songdo apartment units. Whether it signified general excitement for Songdo City or a speculative bubble, the results were astounding, with the first apartment block leasing all properties within five days and raising \$1 billion⁵⁷.

However, the 2008 recession, coupled with general delays, controversies and problems, led to a slowdown of investment and construction, dampening optimism for the project. The public policy landscape was also changing and while the central government in 2002 was fully committed to developing an international district in Songdo, subsequent administrations began to prioritize regional development and frowned upon such a large project so close to Seoul⁵⁸. The media also began to criticize the project around the time

of the recession, especially after the apartment pre-sale and the slowdown of other projects. A narrative emerged that the government and developers were chasing profits by only developing lucrative residential properties and neglecting others⁵⁹. Even so, construction never entirely stalled, and the most important landmarks of the city were completed between 2009 and 2015, including the international school, the convention center, and park system.

Building in Songdo City has not stopped in recent years and the population continues to increase. Total money spent building is expected to exceed \$40 billion, making it among the most expensive privately financed projects ever⁶⁰. A new biotechnology hub has attracted billions of dollars in investment from domestic companies aiming to grow internationally, a crucial missing demographic from earlier years⁶¹. Six universities, including the University of Utah and George Mason University (US) and Ghent University (Belgium) have opened international campuses, along with Stanford’s flagship Asia research center, with many of them occupying the same state-of-the-art building⁶². While Songdo City has not yet fully dispelled the “ghost city” narrative that took hold in the second half of the 2010s, there has been increasing optimism about growth and a general sense that the city has been a qualified success⁶³.

Governmental Structure

Considering the leading part the South Korean government traditionally has played in development and economic affairs, it is surprising how little the public sector is involved in the Songdo Project. While Songdo City is nominally under the jurisdiction of nearby Incheon Metropolitan City, much of the day-to-day governance is carried out by the Incheon

⁵³ Sonn, Jung Won, HaeRan Shin, and Se Hoon Park. “A mega urban project and two competing accumulation strategies: negotiating discourses of the Songdo International Business District development.” *International Development Planning Review* 39, no. 3 (2017): 299-317.

⁵⁴ Songdo, along with Yeongjong (focused on trade and logistics) and Cheongna (a tourist hub), make up the IFEZ.

⁵⁵ Sonn et al., “A mega urban project bid” (reproduced).

⁵⁶ Kim and Mack, “Contracting-out”.

⁵⁷ Lee, Junho, and Jeehyun Oh. “New Songdo City and the value of flexibility: a case study of implementation and analysis of a mega-scale project,” *dspace*, mit.edu, 2008. <https://dspace.mit.edu/handle/1721.1/58657>

⁵⁸ Korea is dominated by Seoul in all aspects of life: population, culture, business, etc. For more about balanced development laws, see Ahn, Kwang Youl. “New Horizons in Well-balanced Development in Korea: Focusing on Innovation Cities and Smart Cities,” OECD, 2021. https://read.oecd-ilibrary.org/view/?ref=1113_1113283-nd6fg9yrxr&title=Regional-development.

⁵⁹ Sonn (2017) goes into this narrative in depth.

⁶⁰ D.T. Seoul. “Sing a Song of \$40 Billion,” *The Economist*, July 22, 2010. <https://www.economist.com/banyan/2010/07/22/sing-a-song-of-40-billion>

⁶¹ ANI. “Korean bio ‘Big 3’ Samsung, Celltrion, SK to expand businesses in Songdo,” *Business Standard*, December 29, 2021. https://www.business-standard.com/article/companies/korean-bio-big-3-samsung-celltrion-sk-to-expand-businesses-in-songdo-121122900140_1.html

⁶² <https://www.igc.or.kr/en/index.do>

⁶³ Poon, Linda, Siuming Ho, and Yudit Ho. “Songdo, South Korea’s Smartest City, Is Lonely,” *Bloomberg.com*, June 22, 2018. <https://www.bloomberg.com/news/articles/2018-06-22/songdo-south-korea-s-smartest-city-is-lonely>

Free Economic Zone Authority (IFEZA), a quasi-governmental entity with appointed employees.

Shwayri contends:

The committee has expansive powers over the zone, regulating it both spatially and socially through drawing up and implementing development plans, approving master plans, and designing tax benefits for individuals and businesses. As expected, the FEZ Committee's almost absolute control over the zone, facilitated through its many policies, has caused much controversy, transforming the nature of this new city⁶⁴.

This is especially true considering the degree of control IFEZA exerts over Songdo residents, not only on matters of policy but in everyday life. For example, the extensive network of surveillance in the city will identify "abnormal actions and sounds" and notify the police in real-time⁶⁵. While South Korean cities as a whole are heavily monitored, this level of surveillance, especially considering it is by a quasi-government entity, is unusual to say the least. Residents must meticulously sort their trash into approved bags and use their "smart identity card" to open the chute. Sensors will reject incorrectly sorted trash and, if the person is a repeat offender, fine them⁶⁶. Combined with other restrictive measures that police "normal" behavior, there is an argument that the residents of Songdo City face an uncomfortable intrusion into their privacy, especially considering the complicated existing political system that may or may not respond to their concerns.

The IFEZA, and the FEZ by extension, has been simultaneously criticized as going too far and not far enough by different interests. Frustrated investors point to the fact that certain matters, including tax rates and growth limits near Seoul, were controlled by the central government and tied the hands of the IFEZA in creating a well-functioning business environment. Even with the extra incentives provided by the zone,

the fact remained that South Korea's corporate tax rate of between 19 and 24% for most large businesses (with 100% exemption for three years, 50% exemption for two years) was much higher than that of Singapore at 18%, or Hong Kong at 17%⁶⁷. IFEZA's ability to operate independently, a central tenet of FEZs, was also directly tested when the central government mandated the buy-back of underperforming land parcels along with the implementation of strict financial penalties if more delays occurred with construction or in attracting FDI⁶⁸. The developer strongly objected to these policies, pointing out that a range of factors outside of their control, including the Great Recession and weakening support from the government itself, played a role in the delay.

On the flip side, a loose coalition of labor, environmental, and political groups have opposed IFEZA and Songdo City as being unregulated, neoliberal, and hyper-capitalistic. Labor unions and other leftwing groups protested that the "loosened regulations" of the IFEZ include the erosion of key workers' protections, including hiring requirements for the disabled and certain paid leave⁶⁹. The reclamation of the wetlands for the city was itself a long and controversial flashpoint. Much has been written about the loss of key environmental habitats for endangered species, as well as the loss of livelihood for fishermen in the area⁷⁰.

Ironically, Hambak Village, a low-income settlement on the periphery of Songdo City, seemed to find more success attracting foreign immigrants who could not afford the city's high prices⁷¹. This is despite the community being plagued by issues such as waste management, pollution, and racial tensions. Beyond a natural skepticism that systemic problems cannot be solved through technology alone, Hambak Village offers concrete evidence that social problems were simply pushed out and hidden away in the effort to build Songdo City. For these reasons, many South Koreans view the whole project for the rich and foreigners at the expense of regular Koreans. In fact, only 3% of the population of Songdo City were foreign-born as of 2020⁷².

⁶⁴ Shwayri, Sofia T. "A Model Korean Ubiquitous Eco-City? The Politics of Making Songdo." *Journal of Urban Technology* 20, no. 1 (January, 2013): 39–55. <https://doi.org/10.1080/10630732.2012.735409>

⁶⁵ Lee et al., "International Case Studies."

⁶⁶ Eireiner, Anna Verena. "Promises of Urbanism: New Songdo City and the Power of Infrastructure." *Space and Culture*, August 12, 2021, 120633122110387. <https://doi.org/10.1177/12063312211038716>

⁶⁷ Kim and Mack, "Contracting-out".

⁶⁸ Ibid.

⁶⁹ Lee, "Development of Free Economic Zones."

⁷⁰ Eireiner, "Promises of Urbanism."

⁷¹ Jeon, Hai Ri (Sophia), "How South Korea's Incheon Smart City."

⁷² <https://citypopulation.de/en/southkorea/incheon/admin/>

Sociologist Anna Eireiner contends that Songdo City is subject to a unique form of governance known as “extrastatecraft,” where infrastructure and the built environment itself act as a governing agent⁷³. This arrangement is all the more powerful due to the ambiguous nature of Songdo’s political structure. To answer the question ‘Who runs Songdo City?’ it makes more sense not to look at the distant Incheon metropolitan government, but rather focus on the offices of IFEZA, Gale, and other private companies. A service provider such as Cisco, which was exclusively tasked with building the entirety of Songdo City’s digital infrastructure, was also tasked with running the services on top of them. If the consumer does not have a choice to opt in or out of these services, then companies are engaging in thinly veiled “social engineering,” shaping behaviors not through surveillance and laws (which are, of course, present), but by placing limits on *what can be done* through the technology itself⁷⁴. This “gradual fusion of public and private power” comes together to create an “ordered and visible public [yet ostensibly private] place,” where social norms are narrowly and rigidly enforced⁷⁵. This is a problem to which all new cities must pay close attention, especially when their extensive private partnerships risk privatizing governance altogether.

Built Environment



Figure 8: Hanok Village (Visit Korea)⁷⁶

[yeonsu_gu/2304064__songdo_1_dong](https://www.visitkorea.or.kr/svc/whereToGo/locIntrdn/locIntrdnList.do?vcontsId=112590)

⁷³ Ibid.

⁷⁴ Lindsay, Greg. “Cisco’s Big Bet on New Songdo: Creating Cities From Scratch.” *Fast Company*, 2010. <https://www.fastcompany.com/1514547/ciscos-big-bet-new-songdo-creating-cities-scratch>

⁷⁵ Bartmanski, Dominik., Kim, Seonju., Löw, Martina., Pape, Timothy., & Jorg Stollmann. Fabrication of space: The design of everyday life in South Korean Songdo. *Urban Studies* 60 no. 4 (2023): 673-695. <https://doi.org/10.1177/00420980221115051>

⁷⁶ Korea Tourism Organization. “Songdo Hanok Village (송도 한옥마을): VISITKOREA,” Songdo Hanok Village (송도 한옥마을), n.d. <https://english.visitkorea.or.kr/svc/whereToGo/locIntrdn/locIntrdnList.do?vcontsId=112590>

Landscape and Design

Songdo City, which encompasses 100 million meticulously planned square feet (sq. ft.), is made up of 50 million sq. ft. of commercial, 35 million sq. ft. of residential, and 10 million sq.ft. of public space, including the massive central park⁷⁷. The city is broken up into 11 zones⁷⁸. Zones 1-4 comprise the downtown International Business District, with a mix of residential and commercial buildings, main amenities, such as the convention center and department store, and a mix of industries, including significant facilities for the semiconductor and biotech industries⁷⁹. Zones 5-7 make up “Songdo Campus Town,” consisting of Yonsei and five international universities within a dense and state-of-the-art shared campus complex. The other zones, some not yet built, include additional residential complexes, a new trade port, and a range of other facilities.



Figure 9: Map of Songdo (Songdo IBD)⁸⁰

Songdo City is ostensibly designed based on common urban planning principles. Developers promoted a vision of walkable, dense, and mixed-use neighborhoods with all amenities, including shopping and green spaces, close to residents’ homes⁸¹. The city boasts an effective public transportation system, including a subway line and a frequent bus service, most buildings have ground-floor retail, and the parks are accessible and pleasant. However, unlike other South Korean cities, especially Seoul, there is significant space in front and between buildings; combined with inexplicably sprawling roads (I counted 19 total lanes in one particular intersection), this can make the streetscape feel uninviting and empty to some residents and visitors.

⁷⁷ Gale International. “Songdo History,” *Songdo Development Partnership: Gale International, 2019*. <http://songdo.com/about/#history>

⁷⁸ Baek, Insoo. “A Study on the Sustainable Infrastructure of the Songdo City Project: From the Viewpoint of the Metabolic Flow Perspective,” Stellenbosch University, 2015. <https://core.ac.uk/download/pdf/37438492.pdf>

⁷⁹ Ibid.

⁸⁰ Gale International. “Songdo History.”

⁸¹ Baek, “A Study on the Sustainable.”



Figure 10: Google Street View of Songdo streets

In her seminal 1991 book *The Global City*⁸², Saskia Sassen described how increasing globalization would concentrate economic, social, and cultural power into the hands of an increasingly shrinking (and increasingly indistinguishable) group of elite cities⁸³. Songdo City aspires to fit this mold. Its design and landscape are orderly and grand, yet its bracingly unremarkable streetscape could be found anywhere in the world. Of course, this comes at the cost of removing any uniquely Korean characteristics, drawing criticism that Songdo City lacks a cogent identity, culture, or purpose outside of pure economics. Even in central areas such as the International Business District and Songdo Canal Walk, the design is more reminiscent of modern, mixed-used developments typical of American cities rather than South Korean neighborhoods. Perhaps the only distinctly “Korean” architecture is found within the Hanok Village at Songdo Central Park, and even that is more a tourist novelty than an authentic cultural space (see Figures 11 and 12 for a comparison of styles.)

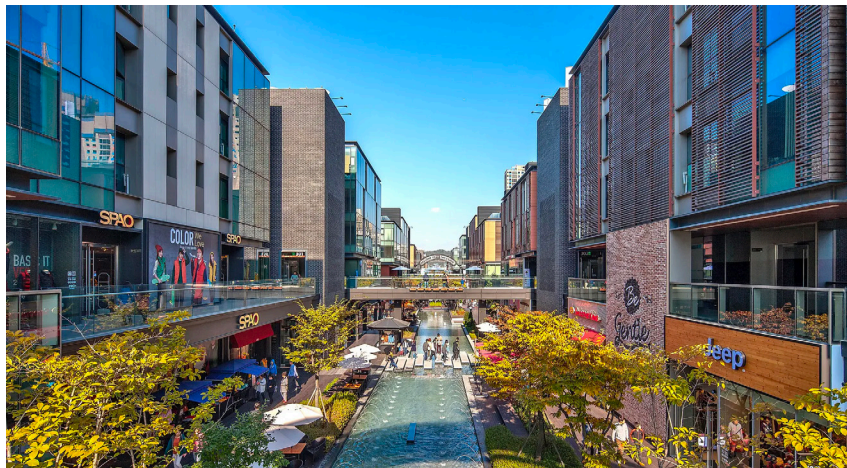


Figure 11: Songdo Canal Walk (KPF)⁸⁴

⁸² Sassen, Saskia. *The Global City: New York, London, Tokyo*. Princeton University Press, 1991.

⁸³ Residents of these “winner” cities would still suffer as wealth and power flowed only to the elite in the elite city, leaving the non-upper class to deal with all the costs but with none of the benefits that accrue with growing global status. We can see this dynamic play out in all three of the original global cities in this study (Sassen, *The Global City*.)

⁸⁴ KPF. “Songdo Canal Walk,” n.d. <https://www.kpf.com/project/songdo-canal-walk>

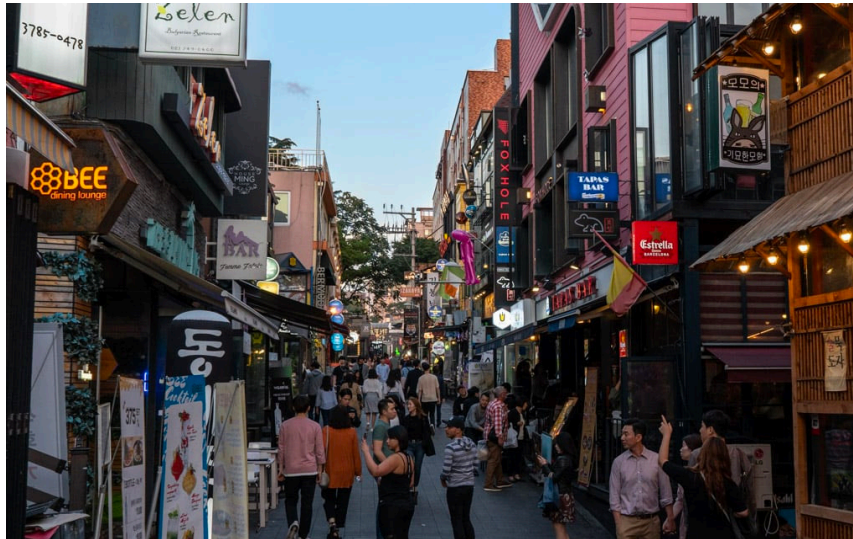


Figure 12: Traditional Itaewon neighborhood in Seoul (The Seoul Guide)⁸⁵

A famous Dutch architect, Rem Koolhaas, presented a more pessimistic outlook on the growth of “generic cities,” which resonates with South Korea’s construction of Songdo City:

The generic city... is nothing but a reflection of present need and present ability. It is the city without history. It is big enough for everybody. It is easy... It is equally exciting- or unexciting- everywhere. It is “superficial-” like a Hollywood studio lot, it can produce a new identity every Monday morning⁸⁶.

In the pursuit of building a grand, planned, and world-class destination, Songdo City has opened itself up to the criticism of being built for ideas, not residents. There are countless other examples of stunning yet empty new cities across the world⁸⁷. Governments, when considering the construction of the next ‘Songdo’, must build with the demands and preferences of future residents in mind.

The U-City

In promotion after promotion of Songdo City, marketers and government officials ceaselessly push Songdo as a “Ubiquitous (U-) City.” This term, popularized in South Korea concurrently with Songdo’s construction, refers to the seamless integration of infrastructure and information technology that produces highly centralized and “smart” operations⁸⁸. The South Korean government passed a law officially embracing U-cities in 2008 and provided support through the Ministry of Land, Transport and Maritime Affairs for more than 40 pilots nationwide⁸⁹. Every conceivable amenity and service has an element of “U”-ness built into it including fire safety, traffic control, crime management, and weather services, all of which are served by a dizzying array of sensors, cameras, and networks aimed at maximizing “the quality of life and value of a region”⁹⁰.

⁸⁵ The Seoul Guide. “Neighborhoods and Districts,” 2020. <https://www.theseoulguide.com/neighborhoods-and-districts/>

⁸⁶ Koolhaas, Rem, and Bruce Mau. “The Generic City.” *S, M, L, XL*. Monacelli Press, (2002): 1250.

⁸⁷ The aerial view of Songdo looks eerily similar to Brasilia, Brazil’s planned capital. See other examples: Caofeidian and Kangbashi (China), Naypyidaw (Myanmar), and Astana (Kazakhstan), among others.

⁸⁸ Kim, Yeon Mee, Hyun Soo Kim, Soo Young Moon, and So-Yeon Bae. “Ubiquitous Eco-City Planning in Korea. A Project for the Realization of Ecological City Planning and Ubiquitous Network Society,” *Real Corp*, 2009. https://www.corp.at/archive/CORP2009_174.pdf

⁸⁹ Ibid.

⁹⁰ Jang, Myungjun, and Soon-Tak Suh. “U-City: New Trends of Urban Planning in Korea Based on Pervasive and Ubiquitous Geotechnology and Geoinformation.” In *Computational Science and Its Applications – ICCSA 2010: International Conference, Fukuoka, Japan, March 23-26, 2010, Proceedings, Part I*, 10, pp. 262-270. doi.org/10.1007/978-3-642-12156-2_20

Category	Description	Examples
u-Home	Integrates technology for efficient and convenient living, including energy management and security enhancements.	IoT sensors for real-time energy use monitoring, smart applications for device management.
u-Work	Utilizes digital connectivity and smart solutions to improve workplace productivity and flexibility.	Smart offices, ubiquitous broadband and connectivity, digital collaboration tools.
u-Traffic	Employs intelligent systems for traffic management and transportation efficiency, enhancing safety and convenience.	Real-time traffic signal control, public transportation information systems, active parking guidance.
u-Health	Advances in healthcare services through technology for remote monitoring and telemedicine.	Wearable health monitoring devices, telehealth services, and digital health records.
u-Environment	Focuses on monitoring environmental conditions using advanced sensors and ensuring sustainable development.	Wind velocity, temperature/humidity sensors, visibility cameras for real-time data, centralized waste system, green building standards.
u-Public Service	Enhances the accessibility and efficiency of government services through digital platforms.	Free Wi-Fi, media boards providing information on traffic, weather, and disaster management.
u-Education	Improves access to educational resources and experiences.	Virtual classrooms, online learning platforms, high quality schools.

Table 3: The U-City within Songdo⁹¹

As highlighted in the previous section, the U-city services are so inherent to Songdo City's governance and social fabric that they can be seen as an extension of government. After all, even the planning and construction of the city was contracted out to private entities. Companies are encouraged to experiment with innovations and technologies, creating a cutting-edge but as yet untested system of services⁹². The lived experience of a Songdo City resident is understudied, but drawing from news reports and available academic sources, there seems to be a general appreciation of the amenities, though criticisms about the city's "top down," "artificial," and perhaps tech-first, human-second landscape, abound⁹³. For example, the high-tech trash collection system, which uses pneumatic tubes to transport trash directly from a bin to a centralized facility, is efficient but paradoxically has not stopped illegal littering, presumably because there are too few of them or they are too cumbersome to use.

⁹¹ Jang, et al., "U-City: New Trends"; Lee et al., "International Case Studies."

⁹² Kim and Choi, 2018.

⁹³ Neidhart, Christoph, and Stuart Richardson. "Welcome To Songdo, South Korea: The Smartest Of Smart Cities" *Worldcrunch*, January 11, 2018. <https://worldcrunch.com/smarter-cities-1/welcome-to-songdo-south-korea-the-smartest-of-smart-cities>



Figure 13: Smart bins stop people from mixing trash and recycling but are unsuccessful at preventing people from placing trash next to them (Songdo Chronicle)⁹⁴

Sustainability

Songdo City has also taken pains to market itself as an “eco-city,” as well as a “Ubiquitous city,” making sustainability a central part of its building plans⁹⁵. The International Business District was the first to earn Leadership in Energy and Environmental Design (LEED) precertification for the development as a whole. This measure takes into account efficiency in “water consumption, energy use, human experience, waste, and transportation”⁹⁶. The public transportation system, along with a robust network of bike lanes and car sharing, reduces congestion and pollution. The city aims to recycle 30% of its water, including sewage and runoff, and operates an efficient and centralized heating and cooling system⁹⁷.

However, the reality on the ground presents a more complicated picture of Songdo City than its portrayal as a green paradise. The smart tech listed above,

for example, includes the pneumatic tubes for trash disposal and countless sensors and screens that dot the city, which uses a significant amount of electricity. In fact, one paper found that “the average Songdo resident consumed more electricity and water than the average South Korean”⁹⁸. LEED certification is based on predictive models, not actual data of energy usage and it is unclear whether or not Songdo City has achieved its goal of limiting carbon to *one-fourth* the amount produced by a comparable city⁹⁹. On this point, investments in bike lanes and public transportation have little impact if cars continue to be the primary mode of transportation, which seems to be the case in Songdo City. Therefore, receiving certifications and building theoretically “green” systems alone does not make a city environmentally sustainable; cities, instead, must commit to real and comprehensive obligations that are honored by all players, including government, residents, and businesses.

⁹⁴ Kim, GyuHee. “Incheon Metropolitan City Announces “Comprehensive Plan for Reducing Waste,”” *Songdo Chronicle*, November 4, 2020. <https://songdochronicle.com/1961/latest-posts/incheon-metropolitan-city-announces-comprehensive-plan-for-reducing-waste/#modal-photo>

⁹⁵ Baek, “A Study on the Sustainable.”

⁹⁶ Stanley, Sarah. “USGBC Announces Songdo IBD as the First to Earn LEED for Communities Precertification | U.S. Green Building Council,” USGBC, June 16, 2017. <https://www.usgbc.org/articles/usgbc-announces-songdo-ibd-first-earn-leed-communities-precertification>

⁹⁷ Baek, “A Study on the Sustainable,” pp. 61 & 76.

⁹⁸ Baek, “A Study on the Sustainable,” p. 89.

⁹⁹ Baek, “A Study on the Sustainable,” p. 88.



Figure 14: Empty bike parking (Korea: Take Two)¹⁰⁰

Industry

Whether or not Songdo City is successful at attracting foreign business is still a contentious issue. It is also difficult to untangle the potential influences upon economic activity within the city, including, but not limited to, the FEZ incentives, geographic location, massive government investment, and relocation of domestic South Korean companies. However, reports of Songdo City failing to bring in investment may have been premature. While it is true that FDI levels did not initially meet expectations after post-IMF bailout liberalization efforts, FDI numbers have steadily increased over the past few years¹⁰¹. It is clear in retrospect that confounding factors, especially the 2008 recession, had an inordinate impact on Songdo City's early years, and that more time is needed to enable a wider assessment of the city's true impact to be made.

South Korean Context

It is worth summarizing the broader economic context of South Korea around the time Songdo City was planned. Firstly, before the creation of the FEZ, foreign investment was not a priority of the government, with overt hostility towards foreign entities discernible

¹⁰⁰ Engel, Seth. "Incheon, Landed | Korea: Take Two," *Korea: Take Two*, July 10, 2013. <https://koreataketwo.wordpress.com/2013/07/10/incheon-landed/>

¹⁰¹ Young-bae, Kim. "S. Korea sees record foreign direct investment of US\$29 billion in 2021," *Hankyoreh*, January 11, 2022. https://english.hani.co.kr/arti/english_edition/e_business/1026890.html

until the Asian Financial Crisis in 1997. Before then, growth was largely fueled by state-subsidized *chaebol* companies¹⁰². Once the economy was opened, however, investment flooded in, and from 1998 to 2005 South Korea received almost \$100 billion of FDI, four times more than the country's previous 35 years combined¹⁰³.

Secondly, by the turn of the century, South Korea was already an established and relatively mature economy and was invited to join the G20 as a "systemically important economy"¹⁰⁴. This also meant, however, that the country could no longer enjoy the comparative advantages typical of developing countries such as cheap labor and materials¹⁰⁵.

Finally, the 1990s and 2000s saw an explosion of globalization and international trade, much of it fueled by the growth of Asian markets. There was also a concurrent rise in free trade policies, whether through the cooperative agreement of organizations such as the Asia-Pacific Economic Cooperation (APEC) or the

¹⁰² The term *chaebol* is used to refer to a large industrial South Korean conglomerate run and controlled by an individual or family.

¹⁰³ Kim, Wan-Soon, and You-Il Lee. "Challenges of Korea's Foreign Direct Investment-Led Globalization: Multinational Corporations' Perceptions," *Asia Pacific Business Review* 13, no. 2 (2007): 163–181.

¹⁰⁴ Group of Twenty. *THE GROUP OF TWENTY: A HISTORY*, G20 Research Group, 2007. <http://www.g20.utoronto.ca/docs/g20history.pdf> (p.5)

¹⁰⁵ Ibid.

coerced liberalization mandated after the IMF bailouts for the 1997 Asian Financial Crisis. Combined with tightening regulations on borrowing and liberalizing markets, the country attempted to disentangle itself from a financial and business sector overly reliant on public support¹⁰⁶. This especially affected the *chaebol* who had been handpicked to supercharge economic growth but were now suffering from a combination of debt and a lack of productivity.

Both Songdo City and FEZs, therefore, signaled a fundamental shift in the government's attitude towards international trade but one that came about begrudgingly more out of necessity than desire. While it is undeniable that the government did an admirable job of planning and constructing Songdo City, perhaps this point can explain the repeated reluctance of the government to fully support the project and, on occasion, its pursuit of policies that directly undermined its success.

Performance

Early criticisms of the IFEZ and Songdo City included concerns about governmental policy, regulations, and the project's overall viability. More recent criticisms focus on problems with Songdo as a city, seemingly suggesting that much of the problems initially identified have decreased in relevance. Firstly, investors argued that business deregulation and subsidies offered by IFEZ did not go far enough to make Songdo City an attractive location for business. In a 2007 survey of companies considering a move to the city, 50% stated that high costs and inadequate incentives were the greatest obstacles¹⁰⁷. With an already high corporate tax rate between 19 and 24%, Songdo City compared unfavorably with competing options; for example, cost of land was four times more and labor seven times more compared with nearby Shanghai¹⁰⁸. The FEZ tax breaks were also applied unevenly across industries, and domestic companies were excluded from them entirely. This was a particularly disastrous policy and came up repeatedly during interviews

¹⁰⁶ Krueger, Anne O., and Jungo Yoo. "Falling Profitability, Higher Borrowing Costs, and Chaebol Finances During the Korean Crisis," *International Monetary Fund*, September 19, 2002. <https://www.elibrary.imf.org/display/book/9781589060685/C05.xml>

¹⁰⁷ Kim, "A Study on the Development Plan."

¹⁰⁸ Ibid.

with businesses and developers. The IFEZ is one of *nine* free economic zones in South Korea, with many of them marketing towards similar industries, reducing agglomeration effects, the unique value of each zone, and causing intra-country competition and inefficiency¹⁰⁹. Questions naturally arise, then, as to how much FDI was counterfactually secured in Songdo City compared to simply being displaced from other cities. In any case, difficulty attracting both foreign and domestic companies has led to high vacancy rates and construction delays during the first 10-20 years of Songdo's existence.

Secondly, investors expressed skepticism regarding the long-term prospects of Songdo City, viewing the project as overly ambitious and unlikely to succeed. Concerns centered around quality of life, including the lack of basic amenities, such as an initial shortage of hospitals, lack of community, and the high cost of living. The developer allegedly responded by narrowing the scope of the project to favor residential development, a traditional, safe, and profitable enterprise, and in so doing sacrificing South Korea's vision of Songdo City as an internationally competitive destination¹¹⁰. Many residents still commute to work in Seoul, deciding to move either for affordability (Songdo City averages around half of Central Seoul's price per square meter) or the "quieter" life found in the city, suggesting those concerns surrounding quality of life may be overstated¹¹¹.

Finally, investors were wary of the government, which had a lukewarm relationship with foreign investors and firms. One survey found that foreign companies believed that South Korea continued to suffer from "frequent policy changes, lackluster efforts in policy implementation, excessive regulations, anti-foreign business sentiment within and outside government,

¹⁰⁹ Invest Korea. "Korean Free Economic Zones | InvestKOREA(ENG)," n.d. <https://www.investkorea.org/ik-en/cntnts/i-2818/web.do> (Accessed November 8, 2023); Hopfner, Jonathan. "South Korea zones struggle to lure FDI in downturn," *Reuters*, May 20, 2009. <https://www.reuters.com/article/us-korea-zones/south-korea-zones-struggle-to-lure-fdi-in-downturn-idUSTRE54J02220090520>

¹¹⁰ Sonn et al., "A mega urban project bid."

¹¹¹ Hutton, Mercedes. "Sustainable and Smart: South Korea's Songdo Offers Green Spaces and Good Schools," *Mansion Global*, August 21, 2021. <https://www.mansionglobal.com/articles/sustainable-and-smart-south-koreas-songdo-offers-green-spaces-and-good-schools-228684>

and militant labour unions” that held the country back¹¹². Though Songdo City was a key priority for President Kim Dae-jung in 2002, later presidents began emphasizing geographically equitable growth elsewhere in South Korea, leading to decreased attention on Songdo City, which is located in the same region as Seoul.¹¹³

The public-private partnership with Gale International illustrated many of these tensions. When Gale International failed to secure the agreed-upon amount of FDI, the government imposed fines and bought back underperforming parcels of land within the city¹¹⁴. The price of newly built apartment units were capped after domestic controversy, further eating into the developer’s profit margins¹¹⁵. The final condemnation came from the project hitting a series of delays. Laws such as the 2004 Special Act on Balanced National Development prevented the government from providing adequate support and flexibility for the project as it became politically unpopular to support investments within the Seoul metropolitan area at the expense of other regions in South Korea¹¹⁶. This led to an unpleasant series of events culminating in Gale International’s stake in the project being forcibly sold off by POSCO, the public partner, which resulted in a series of multi-billion dollar lawsuits that remain unresolved to the present day¹¹⁷. One Gale International advisor ominously declared: “I would caution anybody against trying to do anything as ambitious [as us in Korea]”¹¹⁸. However, the company website still states that it is “firmly committed to seeing the Songdo IBD project through to its successful completion—” and other marketing seems to support this assertion; this fact perhaps speaks to the complex

relationship between its greatest success and failure¹¹⁹.

Over the past few years, South Korea has been more successful at reducing barriers for foreign investors and attracting FDI. In their 2023 *Investment Climate Statement*, the US State Department noted that South Korea has taken key steps at making a more favorable investment environment, such as the appointment of a permanent Foreign Investment Ombudsman and renegotiation of a US-South Korea Free Trade Agreement in 2019¹²⁰. Unlike what occurred in 2008 recession, South Korea during the COVID-19 pandemic saw a 40% increase in FDI, reaching \$30 billion in 2021 and 2022¹²¹. The current President has made foreign investment a key priority for his administration, and investment levels have risen to \$16.5 billion during the first half of 2023¹²². His policies of deregulation and aggressive marketing on foreign trips have attracted companies from a range of industries and countries, including Netflix in the United States and leading pharmaceutical conglomerates from the European Union¹²³.

The IFEZ, anchored by Songdo City, has also begun changing the narrative through a series of large-scale foreign investments. By 2023, the IFEZ had reportedly brought in \$16 billion of FDI, far surpassing the initial goal of \$6 billion, and is now home to more than 200 foreign companies¹²⁴. The city is physically expanding to make room for new businesses and developments. For example, a growing biotech cluster, anchored by more than 60 foreign and domestic companies, produces more bio-medicine than anywhere, except San Francisco and Singapore, and is preparing for a

¹¹² Kim and Lee, “Challenges of Korea’s Foreign Direct Investment-Led Globalization.”

¹¹³ Shin, Hyung Bang. “Envisioned by the state: entrepreneurial urbanism and the making of Songdo City, South Korea”, June 2016, in *Mega-urbanization in the Global South: Fast Cities and New Urban Utopias of the Postcolonial State* (eds. Ayona Datta and Abdul Shaban). <https://core.ac.uk/download/pdf/42486722.pdf>

¹¹⁴ Kim and Mack, “Contracting-out”.

¹¹⁵ Ibid.

¹¹⁶ Kim and Mack, “Contracting-out”.

¹¹⁷ Grant, Peter. “Developer Feuds With Korean Partner Over Busted ‘Smart’ City,” *The Wall Street Journal*, June 11, 2019. <https://www.wsj.com/articles/developer-feuds-with-korean-partner-over-busted-smart-city-11560261729>

¹¹⁸ Ibid.

¹¹⁹ Gale International. “SONGDO INTERNATIONAL BUSINESS DISTRICT.” n.d. <http://www.galeintl.com/project/songdo-international-business-district/>

¹²⁰ US Department of State. “2023 Investment Climate Statements: South Korea,” United States Department of State, 2023. <https://www.state.gov/reports/2023-investment-climate-statements/south-korea/>

¹²¹ Yonhap. “FDI pledges to S. Korea hit all-time high in 2022: data,” *The Korea Herald*, January 3, 2023. <https://www.koreaherald.com/view.php?ud=20230103000464>

¹²² Shin, Ji-hye. “Yoon touts role in attracting \$16.5b in investments in H1,” *The Korea Herald*, June 27, 2023. <https://www.koreaherald.com/view.php?ud=20230627000531>

¹²³ Ibid.

¹²⁴ Jung, Da-Hyun. “Incheon highlights free economic zone for foreign investments,” *The Korea Times*, September 13, 2023. https://www.koreatimes.co.kr/www/nation/2023/10/113_359094.html

2030 expansion plan that will potentially add 15,000 workers, 600 companies, and 1 million square meters of newly reclaimed land¹²⁵. Today, Songdo City is around 90% developed with new proposals (including additional land reclamation) in the works¹²⁶. By all accounts, Songdo is a growing, not a dying, city.

Education	Incheon Global Campus hosts five foreign universities (Stony Brook, George Mason, Ghent, Utah the Fashion Institute of Technology (FIT), and a Stanford research center). Yonsei University and three private international/foreign schools have also opened campuses. They aim to provide quality education for expat children, as well as draw international student talent to the city.
Biotech	Songdo City is becoming South Korea’s largest biotech and pharmaceutical research and production hub, producing 43% of the country’s medical product exports, employing 10,000 people, and producing \$5.2 billion in revenue in 2022 ¹²⁷ . Foreign and domestic companies have pledged to invest an additional \$7.5 billion into the city by 2030 ¹²⁸ .
Startup/Tech	Songdo’s Startup Park targets investments and incubation for businesses primarily in tech and biotech. Incheon created a \$200 million accelerator fund and has supported over 400 startups in the city ¹²⁹ .
International Organizations	As of October 2023, IFEZ reported 206 foreign companies making investments within Songdo City, with 15 opening offices in the city ¹³⁰ . Songdo City successfully attracted a range of multilateral organizations, including UN offices and the Green Climate Fund ¹³¹ .

Table 4: Major Industry Clusters in Songdo

¹²⁵ Invest Korea. “Songdo Bio Cluster, the Future of K-BioView,” August 6, 2021. https://www.investkorea.org/ik-en/bbs/i-2486/detail.do?ntt_sn=490763

¹²⁶ Choi, Jasmine. “Incheon Free Economic Zone Authority Marks 20 Years as Economic Growth Catalyst,” Business Korea, October 13, 2023. <https://www.businesskorea.co.kr/news/articleView.html?idxno=203451>

¹²⁷ Kim, Su-Hyeon. 2023. “IFEZ becomes epicenter of Korea’s global appeal.” Korea JoongAng Daily. <https://koreajoongangdaily.joins.com/news/2023-10-16/business/guestReports/IFEZ-becomes-epicenter-of-Koreas-global-appeal/1890745>.

¹²⁸ Invest Korea. “Songdo Bio Cluster.”

¹²⁹ Yoon, John. “Incheon Startup Park - Landmark of Innovation Growth,” *Seoulz*, April 29, 2023. <https://www.seoulz.com/incheon-startup-park-landmark-of-innovation-growth/>

¹³⁰ Kim, “IFEZ becomes epicenter.”

¹³¹ Seo, Jee-yeon. “G-Tower in Songdo, hub building for U.N. offices,” *The Korea Herald*, June 26, 2013. <https://www.koreaherald.com/view.php?ud=20130626000718>

Conclusion

To have created a city at such a rapid pace in the 20 years since the designation of the Free Economic Zone is remarkable and unprecedented in the history of urban development worldwide... now, our goal is to surpass the cities of Hong Kong and Singapore and become a world-leading city with a focus on life sciences, health, and anti-aging. We will strive to enter a phase of coexistence in which civic engagement, in collaboration with industry, academia, and government, together achieve balanced growth. (Kim Jin-yong, Commissioner of the Incheon Free Economic Zone Authority, 2023)¹³²

At some point in their history, *all* cities were new cities. Some grew organically, adding people, industry, history, and culture according to the changing cycles of supply and demand, as well as luck and circumstance. Others were planned to various degrees, oftentimes reflecting a sense of order and intention within their streetscapes. What, then, can the world take away from Songdo City, South Korea's daring new city experiment?

Firstly, despite its faults, Songdo City should be seen as exciting proof of concept for prospective city-builders across the world. New cities and smart cities are oftentimes dismissed as ego-driven fantastical ideas pushed by dictators and billionaires that are doomed to failure. Indeed, many recent projects have failed; however, Songdo City could follow a long line of successful "new" cities, especially in Asia, which we take for granted such as Hong Kong, Singapore, Shenzhen, and (to a degree) Seoul. Therefore, while we can appreciate the city's many revolutionary components, such as an emphasis on technology and sustainability, it is not necessarily an example of a risky experiment that cannot be replicated elsewhere. It is more appropriate to see Songdo City as the latest iteration of a longstanding tradition of new cities.

Secondly, Songdo City illustrates the difficulty of conceiving, coordinating, and implementing a project of this scale, even with a relatively powerful government and developers making decisions. Building from scratch made it possible to attempt to "do things the right way". However, during the planning process, mistakes were made resulting in unintended consequences, which are painfully visible within the built environment of the city. Wavering convictions and interest from the public and private sector could also have sounded as the death knell for the city. However, construction continued and Songdo City has now reached its 20th anniversary with a positive eye on the future, proof that new cities can thrive but they require intensive investments of both capital and time.

Finally, Songdo City illustrates the necessity of analyzing the counterfactual when considering investments within similarly-scaled projects. This was a project whose order of a magnitude was more risky, expensive, and complicated than a typical real estate development or government capital expenditure. To make new cities work, there must be a combination of stakeholder commitment, economic opportunity, and pure luck. South Korea is blessed with strong industries, a deep talent pool, and a globalizing economy, which were all factors in Songdo City's relative success.

If the goal of a government or private entity is simply to make money or encourage economic growth, it is probably best they look elsewhere to make their investment. Conversely, if they are looking for transformative and long-term opportunities to shape the future of a country's people businesses and built environment, new cities could be that catalyst for change. Songdo City was an ambitious investment that grew out of South Korea's desire to grow as a respected player in the international economy. While it remains to be seen whether or not Songdo City will reach the critical velocity needed to survive, it has certainly turned a corner in the past few years. A strong commitment from all involved parties will ensure it will grow as a vibrant, stable, and prosperous city for many more years to come.

¹³² Kim, "IFEZ becomes epicenter."

Bibliography

Adams, Tim. "K-everything: the rise and rise of Korean culture," *The Guardian*, September 4, 2022, <https://www.theguardian.com/world/2022/sep/04/korea-culture-k-pop-music-film-tv-hallyu-v-and-a>

Ahn, Kwang Youl. "New Horizons in Well-balanced Development in Korea: Focusing on Innovation Cities and Smart Cities," OECD, 2021. https://read.oecd-ilibrary.org/view/?ref=1113_1113283-nd6fg9yrxr&title=Regional-development.

ANI. "Korean bio 'Big 3' Samsung, Celltrion, SK to expand businesses in Songdo," *Business Standard*, December 29, 2021. https://www.business-standard.com/article/companies/korean-bio-big-3-samsung-celltrion-sk-to-expand-businesses-in-songdo-121122900140_1.html

Babe, Ann. "Sejong, South Korea's New Administrative Capital City, Draws Critics." *U.S. News & World Report*, 2019. <https://www.usnews.com/news/cities/articles/2019-06-04/sejong-south-koreas-new-administrative-capital-city-draws-critics>

Baek, Insoo. "A Study on the Sustainable Infrastructure of the Songdo City Project: From the Viewpoint of the Metabolic Flow Perspective," Stellenbosch University, 2015. <https://core.ac.uk/download/pdf/37438492.pdf>

Bartmanski, Dominik., Kim, Seonju., Löw, Martina., Pape, Timothy., & Jorg Stollmann. Fabrication of space: The design of everyday life in South Korean Songdo. *Urban Studies* 60 no. 4 (2023): 673-695. <https://doi.org/10.1177/00420980221115051>

Belcher, David. "A New City, Built upon Data, Takes Shape in South Korea." *The New York Times*, March 28, 2022. <https://www.nytimes.com/2022/03/28/technology/eco-delta-smart-village-busan-south-korea.html>

Chihyung, Jeon. "A Road to Modernization and Unification: The Construction of the Gyeongbu Highway in South Korea," *Technology and Culture*, vol. 51, no. 1(2010): 55–79. <http://www.jstor.org/stable/40646992>.

Choi, Jasmine. "Incheon Free Economic Zone Authority Marks 20 Years as Economic Growth Catalyst," *Business Korea*, October 13, 2023. <https://www.businesskorea.co.kr/news/articleView.html?idxno=203451>

Chung, Kae H. "Industrial Progress in South Korea," *Asian Survey* 14, no.5 (May 1974): 439-55. <https://doi.org/10.2307/2642849>

countrystudies.us. "South Korea - the Japanese Role in Korea's Economic Development," n.d. <https://countrystudies.us/south-korea/46.htm>

D.T. Seoul. "Sing a Song of \$40 Billion," *The Economist*, July 22, 2010. <https://www.economist.com/banyan/2010/07/22/sing-a-song-of-40-billion>

Eireiner, Anna Verena. "Promises of Urbanism: New Songdo City and the Power of Infrastructure." *Space and*

Culture, August 12, 2021, 120633122110387. <https://doi.org/10.1177/12063312211038716>

Engel, Seth. "Incheon, Landed | Korea: Take Two," *Korea: Take Two*, July 10, 2013. <https://koreataketwo.wordpress.com/2013/07/10/incheon-landed/>

Euklidiadas, Martínez. "Incheon Free Economic Zone: a successful case of local economic development in South Korea," *Tomorrow.City*, April 22, 2021. <https://tomorrow.city/a/incheon-free-economic-zone-a-successful-example-of-local-economic>

Flamm, Patrick. "Sejong City: The story of South Korea's back-up capital," *Asia Media Centre*, May 23, 2019. <https://www.asiamediacentre.org.nz/features/sejong-city-the-story-of-south-koreas-back-up-capital/>

Gale International. "Songdo History," *Songdo Development Partnership: Gale International*, 2019. <http://songdo.com/about/#history>

Gale International. "SONGDO INTERNATIONAL BUSINESS DISTRICT." n.d. <http://www.galeintl.com/project/songdo-international-business-district/>

Grant, Peter. "Developer Feuds With Korean Partner Over Busted 'Smart' City," *The Wall Street Journal*, June 11, 2019. <https://www.wsj.com/articles/developer-feuds-with-korean-partner-over-busted-smart-city-11560261729>

Group of Twenty. *THE GROUP OF TWENTY: A HISTORY*, G20 Research Group, 2007. <http://www.g20.utoronto.ca/docs/g20history.pdf>

Hopfner, Jonathan. "South Korea zones struggle to lure FDI in downturn," *Reuters*, May 20, 2009. <https://www.reuters.com/article/us-korea-zones/south-korea-zones-struggle-to-lure-fdi-in-downturn-idUSTRE54J02220090520>

Hutton, Mercedes. "Sustainable and Smart: South Korea's Songdo Offers Green Spaces and Good Schools," *Mansion Global*, August 21, 2021. <https://www.mansionglobal.com/articles/sustainable-and-smart-south-koreas-songdo-offers-green-spaces-and-good-schools-228684>

Invest Korea. "Korean Free Economic Zones | InvestKOREA(ENG)," n.d. <https://www.investkorea.org/ik-en/cntnts/i-2818/web.do>

Invest Korea. "Songdo Bio Cluster, the Future of K-BioView," August 6, 2021. https://www.investkorea.org/ik-en/bbs/i-2486/detail.do?ntt_sn=490763

Jang, Myungjun, and Soon-Tak Suh. "U-City: New Trends of Urban Planning in Korea Based on Pervasive and Ubiquitous Geotechnology and Geoinformation." In *Computational Science and Its Applications – ICCSA 2010: International Conference, Fukuoka, Japan, March 23-26, 2010, Proceedings, Part I 10*, pp. 262-270. doi.org/10.1007/978-3-642-12156-2_20

Jeon, Hai Ri (Sophia). "How South Korea's Incheon Smart City Makes Forgotten Inequalities Visible." *Journal of International Affairs* 74, no. 1 (2021):261-284. <https://www.jstor.org/stable/27169783>.

Jeong, Hyung-Gon, and Jong-Hun Pek. "Special Economic Zones: What Can Developing Countries Learn from the Korean Experience?," *Knowledge Sharing Program: KSP Modularization, 2016*. <https://www.ksp.go.kr/api/file/download/11456?>

Jung, Da-Hyun. "Incheon highlights free economic zone for foreign investments," *The Korea Times*, September 13, 2023. https://www.koreatimes.co.kr/www/nation/2023/10/113_359094.html

Kang, Myounggu. "Seoul Experience on Slum Upgrading." *서울정책아카이브, Seoul Solution*, September 25, 2017. <https://www.seoulsolution.kr/en/content/7471>

Kim, Chungjin. "A Study on the Development Plan of Incheon Free Economic Zone, Korea: Based on a Comparison to a Free Economic Zone in Pudong, China," *University of Oregon Scholars' Bank*, 2007. https://core.ac.uk/display/36681074?utm_source=pdf&utm_medium=banner&utm_campaign=pdf-decoration-v1

Kim, GyuHee. "Incheon Metropolitan City Announces "Comprehensive Plan for Reducing Waste,"" *Songdo Chronicle*, November 4, 2020. <https://songdochronicle.com/1961/latest-posts/incheon-metropolitan-city-announces-comprehensive-plan-for-reducing-waste/#modal-photo>

Kim, Jung In. "Making Cities Global: The New City Development of Songdo, Yujiapu and Lingang." *Planning Perspectives* 29 no. 3 (2013): 329-56. doi.org/10.1080/02665433.2013.824370.

Kim, Soo. "South Korea's Oceanix Busan: All We Know About World's First Floating City," *Newsweek*, April, 27, 2022. <https://www.newsweek.com/worlds-first-floating-city-oceanix-busan-south-korea-sustainability-rising-sea-levels-1701389>

Kim, Su-Hyeon. "IFEZ becomes epicenter of Korea's global appeal," *Korea JoongAng Daily*, October 16, 2023. <https://koreajoongangdaily.joins.com/news/2023-10-16/business/guestReports/IFEZ-becomes-epicenter-of-Koreas-global-appeal/1890745>

Kim, Wan-Soon, and You-Il Lee. "Challenges of Korea's Foreign Direct Investment-Led Globalization: Multinational Corporations' Perceptions," *Asia Pacific Business Review* 13, no. 2 (2007): 163-181.

Kim, Yeon Mee, Hyun Soo Kim, Soo Young Moon, and So-Yeon Bae. "Ubiquitous Eco-City Planning in Korea. A Project for the Realization of Ecological City Planning and Ubiquitous Network Society," *Real Corp*, 2009. https://www.corp.at/archive/CORP2009_174.pdf

Kim, Yoon Jung, and Mack Joong Choi. "Contracting-out public-private partnerships in mega-scale developments: The case of New Songdo City in Korea," *Cities*, February, 2018. <https://doi-org.proxy.library.upenn.edu/10.1016/j.cities.2017.07.021>

Koh, Eui-Hyeon. "Korea's Free Economic Zone as an Economic Development Strategy and Operational

System," *Journal of Distribution Science* 12, no. 9 (2014): 113-23. <https://doi.org/10.15722/jds.12.9.201409.113>

Koolhaas, Rem, and Bruce Mau. "The Generic City." *S, M, L, XL*. Monacelli Press, 2002.
Korean Culture and Information Service. "South Korea – Summary: Korea.net: The Official Website of the Republic of Korea," www.korea.net, n.d. <https://www.korea.net/AboutKorea/Society/South-Korea-Summary>

Korea Tourism Organization. "Songdo Hanok Village (송도 한옥마을): VISITKOREA," Songdo Hanok Village (송도 한옥마을), n.d. <https://english.visitkorea.or.kr/svc/whereToGo/locIntrdn/locIntrdnList.do?vcontsId=112590>

KPF. "Songdo Canal Walk," n.d. <https://www.kpf.com/project/songdo-canal-walk>

Krueger, Anne O., and Jungo Yoo. "Falling Profitability, Higher Borrowing Costs, and Chaebol Finances During the Korean Crisis," *International Monetary Fund*, September 19, 2002. <https://www.elibrary.imf.org/display/book/9781589060685/C05.xml>

Lakey, George. "South Koreans win mass campaign for democracy, 1986-87," *Global Nonviolent Action Database*, 2009. <https://nvdatabase.swarthmore.edu/content/south-koreans-win-mass-campaign-democracy-1986-87>

Lee, Changwon. "Development of Free Economic Zones and Labor Standards: A Case Study of Free Economic Zones in Korea," *Korea Labor Institute*, 2005. https://ecommons.cornell.edu/bitstream/handle/1813/89761/Development_of_FreeEFZ_KOREA_by_Lee.pdf?sequence=1

Lee, Young. "International Development and Free Economic Zone: The Case of the Incheon Free Economic Zone in South Korea," PhD diss. (Saint Louis University, 2011.) <https://www.proquest.com/dissertations-theses/international-development-free-economic-zone-case/docview/883993166/se-2>

Lee, Hee-taek, and Da-somi Kim. "윤석열 대통령 취임 1주년... '세종시 7대 공약' 어디에." *디트뉴스*, 2023. <https://www.dtnews24.com/news/articleView.html?idxno=745407>

Lee, Junho, and Jeehyun Oh. "New Songdo City and the value of flexibility: a case study of implementation and analysis of a mega-scale project," *dspace.mit.edu*, 2008. <https://dspace.mit.edu/handle/1721.1/58657>

Lee, Sang Keon, Heeyoun You, and Heeseo Rain Kwon. "Korea's Pursuit for Sustainable Cities through New Town Development: Implications for LAC," *Publications.iadb.org*, June 1, 2015. <https://publications.iadb.org/en/koreas-pursuit-sustainable-cities-through-new-town-development-implications-lac-knowledge-sharing>

Lee, Sang Keon, Kwon, Heeseo Rain, Cho, HeeAh, Kim, Jongbok and Donju Lee. "International Case Studies of Smart Cities: Songdo, Republic of Korea." *IDB Publications*, June, 2016. <https://publications.iadb.org/en/international-case-studies-smart-cities-songdo-republic-korea>

Lee, Yeong Heok, and Jae Hee Lee. "Incheon International Airport: Its Success and Implications for Developing Countries," n.d. <https://www.kdevelopedia.org/Development-Topics/themes/--12>

Lim, Sung-Hoon. "Regional Headquarters Inducement Strategy of South Korea's Free Economic Zones: The Pursuit of a Premier Business Hub in Northeast Asia," *Issues & Studies* 48 no. 3 (2012): 185-210. [https://doi.org/10.7033/ISE.201209_48\(3\).0006](https://doi.org/10.7033/ISE.201209_48(3).0006)

Lindsay, Greg. "Cisco's Big Bet on New Songdo: Creating Cities From Scratch." *Fast Company*, 2010. <https://www.fastcompany.com/1514547/ciscos-big-bet-new-songdo-creating-cities-scratch>

Macrotrends. "South Korea Life Expectancy 1950-2024." Macrotrends.net, 2019. <https://www.macrotrends.net/countries/KOR/south-korea/life-expectancy>

Mobrand, Erik. "Struggles over Unlicensed Housing in Seoul, 1960-80," *Urban Studies* 45 no. 2 (2008): 367-89. <http://www.jstor.org/stable/43197757>

Neidhart, Christoph, and Stuart Richardson. "Welcome To Songdo, South Korea: The Smartest Of Smart Cities" *Worldcrunch*, January 11, 2018. <https://worldcrunch.com/smarter-cities-1/welcome-to-songdo-south-korea-the-smartest-of-smart-cities>

Park, K.H. "Housing Policy in the Republic of Korea," *Asian Development Bank*, April, 2016. <http://www.adb.org/publications/housing-policy-republic-korea/>

Poon, Linda, Siuming Ho, and Yudith Ho. "Songdo, South Korea's Smartest City, Is Lonely," *Bloomberg.com*, June 22, 2018. <https://www.bloomberg.com/news/articles/2018-06-22/songdo-south-korea-s-smartest-city-is-lonely>

Pucher, John, Hyungyong Park, Mook Kim, and Jumin Song. "Public Transport Reforms in Seoul: Innovations Motivated by Funding Crisis," *Journal of Public Transportation* 8, no. 5 (December 2005): 41-62. <https://doi.org/10.5038/2375-0901.8.5.3>

Radchenko, Serbey. "Sport and Politics on the Korean Peninsula - North Korea and the 1988 Seoul Olympics," *Wilson Center*, n.d. <https://www.wilsoncenter.org/publication/sport-and-politics-the-korean-peninsula-north-korea-and-the-1988-seoul-olympics>

Rugkhaman, Napong Tao, and Martin J. Murray. "Songdo IBD (International Business District): Experimental Prototype for the City of Tomorrow?" *International Planning Studies* 24 no. 3-4(2019): 272-92. doi.org/10.1080/013563475.2019.1650725

Sassen, Saskia. *The Global City: New York, London, Tokyo*. Princeton University Press, 1991.

Shwayri, Sofia T. "A Model Korean Ubiquitous Eco-City? The Politics of Making Songdo." *Journal of Urban Technology* 20, no. 1 (January, 2013): 39-55. <https://doi.org/10.1080/10630732.2012.735409>

Seo, Jee-yeon. "G-Tower in Songdo, hub building for U.N. offices," *The Korea Herald*, June 26, 2013. <https://www.koreaherald.com/view.php?ud=20130626000718>

Seth, Michael J. "An Unpromising Recovery: South Korea's Post-Korean War Economic Development: 1953-1961," *Association for Asian Studies*, 18 no.3, 2013. <https://www.asianstudies.org/publications/ea/archives/an-unpromising-recovery-south-koreas-post-korean-war-economic-development-1953-1961/>

Shin, Hyung Bang. "Envisioned by the state: entrepreneurial urbanism and the making of Songdo City, South Korea", June 2016, in *Mega-urbanization in the Global South: Fast Cities and New Urban Utopias of the Postcolonial State* (eds. Ayona Datta and Abdul Shaban). <https://core.ac.uk/download/pdf/42486722.pdf>

Shin, Ji-hye. "Yoon touts role in attracting \$16.5b in investments in H1," **The Korea Herald, June 27, 2023.** <https://www.koreaherald.com/view.php?ud=20230627000531>

Stanley, Sarah. "USGBC Announces Songdo IBD as the First to Earn LEED for Communities Precertification | U.S. Green Building Council," USGBC, June 16, 2017. <https://www.usgbc.org/articles/usgbc-announces-songdo-ibd-first-earn-leed-communities-precertification>

Sonn, Jung Won, HaeRan Shin, and Se Hoon Park. "A mega urban project and two competing accumulation strategies: negotiating discourses of the Songdo International Business District development." *International Development Planning Review* 39, no. 3 (2017): 299-317.

Teslaru, Aurelia. "10 INCREDIBLE things to do in Hongdae, Seoul in 2023," Daily Travel Pill, 2023. <https://dailytravelpill.com/things-to-do-hongdae-seoul/>

The Seoul Guide. "Neighborhoods and Districts," 2020. <https://www.theseoulguide.com/neighborhoods-and-districts/>

US Department of State. "2023 Investment Climate Statements: South Korea," United States Department of State, 2023. <https://www.state.gov/reports/2023-investment-climate-statements/south-korea/>

unhabitat.org. "UN-Habitat and Partners Unveil OCEANIX Busan, the World's First Prototype Floating City | UN-Habitat," 2022. <https://unhabitat.org/news/27-apr-2022/un-habitat-and-partners-unveil-oceanix-busan-the-worlds-first-prototype-floating>

VanVolkenburg, Matt. "What foreign journalists saw covering 1988 Olympics," *The Korea Times*, July 7, 2018. https://www.koreatimes.co.kr/www/nation/2024/02/113_243668.html

web.archive.org. "Land Readjustment | Urban Regeneration," *The World Bank*, (n.d.). <https://web.archive.org/web/20230714145526/urban-regeneration.worldbank.org/node/31>

Wile, Rob. "Old 1960s Photos of Seoul, Korea," *Business Insider*, April 4, 2013. <https://www.businessinsider.com/old-1960s-photos-of-seoul-korea-2013-4>

Wong, Karen. "Diversity and Access to Education." Education in South Korea, (n.d.). <https://sites.miis.edu/southkoreaeducation/diversity-and-access/>

World Bank Open Data. "GDP per capita (current US\$)", World Bank, 2023. <https://data.worldbank.org/>

indicator/NY.GDP.PCAP.CD?end=1961&most_recent_value_desc=true&start=1960

www.fez.go.kr. "KFEZ Introduction - Korean Free Economic Zones," (n.d.). <https://www.fez.go.kr/portal/en/introduction.do>

www.sejong.go.kr. "Investment Environment." n.d. 세종특별자치시, (n.d.). https://www.sejong.go.kr/eng/sub02_010102.do;jsessionid=0316F4212020F8C767FFFAD2D3747AA9.portal1

Yonhap. "FDI pledges to S. Korea hit all-time high in 2022: data," *The Korea Herald*, January 3, 2023. <https://www.koreaherald.com/view.php?ud=20230103000464>

Yonhap. "S. Korea eyes W100tr of investment in free economic zones by 2032," *The Korea Herald*, June 29, 2023. <https://www.koreaherald.com/view.php?ud=20230629000332>

Yoon, John. "Incheon Startup Park - Landmark of Innovation Growth," *Seoulz*, April 29, 2023. <https://www.seoulz.com/incheon-startup-park-landmark-of-innovation-growth/>

Young-bae, Kim. "S. Korea sees record foreign direct investment of US\$29 billion in 2021," *Hankyoreh*, January 11, 2022. https://english.hani.co.kr/arti/english_edition/e_business/1026890.html

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