Technical Deep Dive on Managing Urban Expansion in Mega-Metropolitan Areas

December 11-16, 2017 Tokyo and Seoul

Executive Summary

Mega metropolitan regions - clusters of large, densely populated urban areas spread across multiple local administrative jurisdictions linked by transportation networks - have emerged within countries as effective organizing units producing a sizeable bulk of the world's wealth, attracting a large share of the global talent and commanding an increasing share of the global economy. The Metro Lab Meeting / Technical Deep Dive (TDD) on Mega-Metropolitan Areas (MMAs) brings together representatives from large metropolitan regions from emerging economies to exchange experiences and knowledge with a view to gain a better understanding of the dynamics and development trends of MMAs across the world. The overall focus is on a major challenge facing these cities and regions; namely that of managing urban expansion, density and livability in a manner that takes advantage of the benefits of productive agglomerations, while mitigating the disadvantages of congestion pressures, such traffic, land use, mass transit, etc.

The program is taking place in two of the world's largest cities, Tokyo and Seoul, both of which have successfully managed the challenge of expansion, although employing quite different strategies and approaches. Participants include practitioners and decision-makers from World Bank client countries, Task Team Leaders (TTLs) or senior project team members, and experts from Japan and Korea who will showcase approaches and experiences related to managing urban expansion in a multi-jurisdictional context. In addition to experts and practitioners from the two host cities, experts from the OECD and other organizations are joining to contribute to the discussions.

Focus

The program focuses on two aspects of managing expansion: (i) transportation planning; and (ii) development of new towns and neighborhoods. Through presentations, discussions, and site visits, the program will look at how the two cities have managed development of transportation infrastructure and services, as well as expansion through the creation of new towns and neighborhoods, including mechanisms for planning, financing and governance. The program juxtaposes the Japanese approach to managing urban expansion, which is largely private sector led, with the Korean approach, which is much more top-down with a larger public sector role. Participants will have an opportunity to discuss with Japanese and Korean experts, and among themselves, the applicability of the two approaches to their own cities and regions.

Organizer and Partners

In Japan, the program is organized by the **Tokyo Development Learning Center (TDLC)** which supports and facilitates strategic WBG and client country collaboration with select Japanese cities, agencies and partners for joint research, knowledge exchange, capacity building and other activities that develop opportunities to link Japanese and global expertise with specific project-level engagements in developing countries to maximize development impact. http://www.jointokyo.org/

In Korea, the program is organized by the **Korea Research Institute for Human Settlements (KRIHS)** KRIHS is a public research institution specializing in national territorial, regional, and urban planning; housing, land, and infrastructure policies, and geospatial information. It works mainly for the central government but also with municipalities, public corporations, academia, and increasingly, with foreign and international institutions. http://eng.krihs.re.kr/

TDLC and KRIHS are collaborating, respectively, with the Tokyo Metropolitan Government (TMG) and the Seoul Metropolitan Government (SMG) in design and delivery of the program.

Format

The Technical Deep Dive (TDD) integrates workshops, site visits, peer-peer knowledge sharing and action planning activities

Delegates to the Technical Deep Dives will benefit from:

- Cutting-edge policy thinking and technical knowledge delivered through engaging learning sessions;
- Increased capacity to assess policy and regulatory frameworks across several sectors;
- Peer learning and networking through experience exchange sessions;
- Experimental knowledge exchanges through site visits;
- Opportunity to engage directly with Japanese and Korean municipalities, ministries, private sector and academia, to learn innovative solutions and to identify areas of further collaboration and knowledge exchange;
- Access to follow-up operational support to assist in the successful application of knowledge gained through the TDD, provided through TDLC's operational support component.

DAY 1	MONDAY, DECEMBER 11: IN TOKYO
SCHEDULE	
8:30-9:00	Breakfast and Registration Venue: Tokyo Development Learning Center (TDLC), Tokyo, Japan
9:00-9:45 (45 min)	Welcome and technical deep dive objectives
	Agenda Setting Facilitator: Dan Levine, Senior Officer, TDLC, WBG
	Welcome Remarks ■ Ming Zhang, Urban Practice Manager, WBG
	Icebreaker - Cultural bingo Haruka Imoto, Knowledge Management Analyst, TDLC, WBG
9:45-11:05	Framing presentation: Mega Metropolitan Areas Planning for
(80 min)	Growth, Managing for the Future
	Format: Key Note Presentation followed by panel discussion and Q&A
	 Dr. Tim Moonen, Managing Director, Research and Advise, The Business of Cities Limited
	 Discussants: Barjor E. Mehta, Lead Urban Specialist, WBG and Peter Ellis, Lead Urban Economist, WBG
	 Facilitator: Phil Karp, Lead Knowledge Management Specialist, WBG in cooperation with TDLC
11:05-11:20	Coffee Break
11:20-12:00 (40 min)	Overview of Managing Urban Expansion: Case of Tokyo Yuko Okazawa, Urban Specialist, TDLC, WBG
12:00 -13:30	Lunch
13:30-14:30	City Planning and Transit Oriented Development in Japan
	Format: Quick overview with slides and Interview followed by Q&A
	 Kengo Ochi, Director, City Planning Survey and Information Office, City Planning Division, City Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Government of Japan
	 Moderated by Peter Ellis, Lead Urban Economist, WBG
14:30-14:50	Coffee
14:50-16:20 (90 min)	Shift and Share (1): Presentations on challenges/approaches to
(30 11111)	managing urban expansion from participating delegations
	Each participating city/region will make a brief presentation on the planning efforts undertaken and major projects under implementation in their respective cities. The intention is to get to know the challenges faced and actions taken by each participating
	city.

	Format: Shift and Share
	 Six participating cities make presentations of 6 minutes each (Guidelines provided separately) Facilitator: Phil Karp, Lead Knowledge Management Specialist, WBG in cooperation with TDLC
16:20-16:30	Introduction to Technical Deep Dive Action Plan
	 Dan Levine, Senior Officer, TDLC, WBG
16:30-16:50	Summarize and Draw Common Lessons
17:00-	Dinner
	Venue: Kappogi Grandma's Izakaya, Iino Building B1F, 2-1-1 Uchisaiwaicho Chiyoda Tokyo

DAY 2	TUESDAY, DECEMBER 12: IN TOKYO
SCHEDULE	
8:30-	Meet at hotel entrance
	Take a bus ride to Tokyo Metropolitan Government
	Reflections from Day 1 in the Bus

Thematic Sessions and Site Visit 1

Objective: How Special Wards, Tokyo Metropolitan Government and Central Government Coordinate for Urban Development Projects? How Tokyo managed urban expansion with well-planned Transitoriented Development?

Venue:

Morning: Tokyo Metropolitan Government No. 2 Building, Special meeting room 27, 31st fl. Afternoon: TKP Shinjuku Conference Center, 4th floor Hall 4A, 1-14-11, Nishi Shinjuku, Shinjuku

9:45-10:00 Welcome remark from Tokyo Metropolitan Government

Tsuyoshi Yamamoto, Special Advisor to the Governor on International Affairs,
 Tokyo Metropolitan Government

10:00-10:50 Governance structure in Tokyo

What are the roles and responsibilities of Special Wards, City/Town/Villages and Tokyo Metropolitan Government? What are the budgeting allocation mechanism? How much power does Governor and Mayors have, with examples of projects around urban development and service provisions

Format: Brief presentation (15 min) followed by Q&A (35 min)

- Kazunari Arai, Deputy Director, Promotion Planning Section, Local Administration
 Division Bureau of General Affairs, Tokyo Metropolitan Government
- Moderator: Barjor E. Mehta, Lead Urban Specialist, WBG

Break

10:50-11:00 Pla

Planning and Implementing for Growth of Tokyo: Role of the Public and Private Sectors

11:00-11:45 and Private Sectors

The session will provide an overview of Tokyo Metropolitan Governments experience in planning for and catalyzing the development of transport infrastructure and services. Format: Presentation (15 min) followed by Q&A (30 min)

- Hirofumi Sasaki, Director for Policy Coordination, Urban Development Policy
 Division, Bureau of Urban Development, Tokyo Metropolitan Government
- Moderator: Peter Ellis, Lead Urban Economist, WBG

11:45-12:00	Walk to session venue
12:00-13:20	Lunch

13:20-14:30

Shift and Share (2): Presentations on challenges/approaches to managing urban expansion from participating delegations

Each participating city/region will make a brief presentation on the planning efforts undertaken and major projects under implementation in their respective cities. The intention is to get to know the challenges faced and actions taken by each participating city.

Format: Shift and Share

- Four participating cities make presentations of 6 minutes each (Guidelines provided separately)
- Facilitator: Phil Karp, Lead Knowledge Management Specialist, WBG in cooperation and Haruka Imoto, Knowledge Management Analyst, TDLC, WBG

14:30-14:45

Coffee

14:45-15:15

Overview of Shinjuku – Tokyo and its growth along corridors

Format: Presentation

 Tatsuo Arakawa, Deputy Director General, Urban Renaissance Department, Urban Renaissance Agency (UR)

15:15-17:00

Shinjuku Site Visit

Objective: How Tokyo managed urban expansion with well-planned Transit-oriented Development?

Format: Site Visit. Transportation Mode: By walk

Guide: Tatsuo Arakawa, Deputy Director General, Urban Renaissance Department,
 Urban Renaissance Agency (UR)

17:00-

Dinner

Venue: Good View Tokyo, Tokyo Metropolitan Main Building No.1, 45th fl.

DAY 3	WEDNESDAY, DECEMBER 13: IN TOKYO
SCHEDULE	
8:00	Check out
	Please bring your luggage to TDLC
8:30-9:00	Coffee at TDLC
9:00-9:30	Reflection from Day 3
Thematic Sessions and Site Visit 2 Objective: How Special Wards, Tokyo Metropolitan Government and Central Government Coordinate for Urban Development Projects? How Tokyo managed urban expansion with well-planned Transit-oriented Development?	
9:30-10:00	 Overview of Shibuya Tatsuo Arakawa, Deputy Director General, Urban Renaissance Department, Urban Renaissance Agency (UR)
10:00-10:40	Subway ride to Shibuya (Metro Ginza Line)
10:40-12:00	Shibuya Site visit
(80 min)	Site visit around Shibuya station. Visit Tokyo Metro/Japan Railway (JR) Lines and Hikarie Guide: Tatsuo Arakawa, Deputy Director General, Urban Renaissance Department, Urban Renaissance Agency (UR)
12:15-13:00	Train ride back to TDLC (JR Yamanote Line)
13:00-14:00	Lunch at TDLC
14:00- 14:30	Wrap Up
16:30-	Travel to Haneda Airport A chartered bus is available from TDLC
19:30- 22:30	Flight from Haneda to Gimpo Airport Suggested flights are: Asiana Air OZ 1035 (HND 20:05-GMP 22:35); ANA NH 867 (HND 20:00-GMP 22:30); Korean Air KE 2710 (HND 19:55-GMP 22:35); JAL JL 095 (HND 19:45-GMP 22:20) Bus ride and check-in to Lotte Hotel Seoul

^{*} KRIHS staff will provide buses for airport pick-up. Please do not leave the airport by yourselves.

DAY 4	THURSDAY, DECEMBER 14: IN SEOUL
SCHEDULE	
8:30-9:00	Registration Venue: Lotte Hotel Seoul, Garnet Hall 37th fl.
	ons and Site Visit 1 vwas the Seoul Metropolitan Region growth was managed in Seoul Metropolitan Region
9:00-9:30	 Welcome and setting the agenda for Seoul Jewon Lee, Vice Mayor for Administrative Affairs, Seoul Metropolitan Government .Dr. Dong-Ju Kim, President, KRIHS Group Photo
9:30-10:00	Introduction: Growth Management of Seoul Metropolitan Region Format: Presentation and Q&A Dr. Songsu Choi, Senior Advisor, KRIHS
10:00-10:20	Coffee Break
10:20-11:00	Planning and Implementing for Growth in and around Seoul Format: Presentation and Q&A
	 Presentation 1: Development and Regeneration of Seoul: Inner city townships, redevelopment and environment Dr. Jaemin Song, SMG and University of Seoul
11:00-11:40	Format: Presentation and Q&A
	Presentation 2: Development of large new towns and the regional transportation in Seoul Metropolitan Region Dr. Jeongho Moon, Research Fellow, KRIHS
11:40-12:00	Round table (Open Q&A)
12:00-13:30	Lunch
13:30-18:00	Story of Seoul – Site Visit (1): Township(s)
	Site visits – Seoul History Museum, Sangam Digital Media City (Cheonggye Stream, if time allows) Format: Site Visit, Briefing and Q&A Guided by representatives, SMG & KRIHS
18:00-19:00	Move to reception venue
19:00-21:00	Dinner - hosted by KRIHS

DAY 5	FRIDAY, DECEMBER 15: In SEOUL	
SCHEDULE		
9:00-9:15	Reflection from Day 4 Venue: Lotte Hotel Seoul, Garnet Hall 37th fl.	
	Thematic Sessions and Site Visit 1 Objective: How was the Seoul Metropolitan Region growth was managed in Seoul Metropolitan Region and in Seoul?	
9:15-10:45	Reflecting on Seoul's experiences and identifying principles that could be applied in the participating mega metros Each participating metro will reflect on lessons learnt from Seoul and how and what can be done to apply the principles in their respective cities. The focus will be on the "principles" learnt from observations about Seoul's experience and discussions with the other participating cities. Format: Participants to be seated in small discussion groups to identify and discuss principles learnt from Seoul. (Moderated by WBG/Tokyo/Seoul/ Resource Cities)	
10:45-11:00	Coffee Break	
11:00-12:00	 Explanation about action plan Facilitator: Phil Karp, Lead Knowledge Management Specialist, WBG Presentation of Operational Support by TDLC & KRIHS Yuko Okazawa, Urban Specialist, TDLC, WBG Dr. Yehyun An, Associate Research Fellow, KRIHS Action Plan Preparation	
12:00-13:30	Lunch	
13:30-18:00	Seoul Story – Site Visit (2): Township around Seoul Site visits – In-town and suburban new towns: Jamsil and Pangyo Format: Site Visit, Briefing and Q&A Guided by representatives, SMG & KRIHS	
18:00	Back to Seoul and free dinner	

DAY 6	SATURDAY, DECEMBER 16: IN SEOUL
SCHEDULE	
9:00-9:15	Reflection from Day 5 Venue: Lotte Hotel Seoul, Bell-vue Hall 36th fl.
9:15-10:15	Action Plan Preparation Facilitator: Phil Karp, Lead Knowledge Management Specialist, WBG
10:15-11:15	Action Plan Presentations (1) Each delegation presents their action plan; comments from expert panel Facilitator: Phil Karp, Lead Knowledge Management Specialist, WBG Expert Panel consisting of WBG, KRIHS, SMG and OECD
11:15-11:30	Coffee Break
11:30-12:30	Action Plan Presentations (2) Each delegation presents their action plan; comments from expert panel Facilitator: Dan Levine, Senior Officer, TDLC, WBG Expert Panel consisting of WBG, KRIHS, SMG and OECD
12:30-13:45	Lunch
13:45-14:00	Evaluation
14:00-15:00	Action Plan Presentations (3) Each delegation presents their action plan; comments from expert panel Facilitator: Phil Karp, Lead Knowledge Management Specialist, WBG Expert Panel consisting of WBG, KRIHS, SMG and OECD
15:00-15:30	Closing Circle Reflections from participants on main take-aways and lessons learned Facilitator: Phil Karp, Lead Knowledge Management Specialist, WBG
15:30-15:45	Closing Remarks Ming Zhang, Practice Manager, WBG Dr. Jinkyu Chung, Director of GDPC, KRIHS
15:45	Group Photo

^{*} KRIHS staff will provide Korean Air Limousine (KAL) bus voucher from Lotte Hotel Seoul to Inchon Airport.

Site Visits in Tokyo

Shinjyuku Station

Shinjuku is the busiest station in Tokyo and the world, and is the second largest station building in the world after Nagoya station, Aichi Prefecture. Shinjyuku is a major transport point for people commuting from Tokyo and Kanagawa suburbs, with approximately 3.6 million people passing through on average weekday. Currently, there are 13 train lines that go through the station, including Japan Railway Yamanote Line, Chuo-Sobu Line, Saikyo Line, Shonan-Shinjyuku Line, Narita Express, Tokyo Subway Marunouchi Line, Fukutoshin Line, TMG Toei Shinjyuku Line, Oedo Line, Odakyu Line, Keio Line, Keio New Line and Seibu Sehinjyuku Line. In sum, 9,000 to 10,000 trains arrive and leave from Shinjyuku station and the number of exits alone counts around 200.

West of the station is Shinjuku's skyscraper district, home to many of Tokyo's tallest buildings, including several premier hotels and the twin towers of the Metropolitan Government Office, whose observation decks are open to the public for free. The Tokyo Metropolitan Government Building observatory is a 10 walk from the west exit of Shinjuku Station, and a one minute walk from Tocho-mae station on the Toei subway Oedo line. South of the station is Shinjyuku's commerce and business district. The station opened new expressway bus terminal called Basuta in 2016 and is the largest and the first integrated bus terminal in the Tokyo Metropolitan Area. Northeast of the station lies Kabukicho, Japan's largest and wildest red light district, while department stores, subterranean malls and electronic shops surround Shinjuku Station on all four sides, including the redeveloped Southern Terrace. Shinjuku Gyoen National Garden is a large park and garden in Shinjuku area. It was originally a residence of the Naitō family in the Edo period.









Shibuya Station

Shibuya is the worldly famous cultural and commercial center, located at the west of Central Tokyo. Fashion trends, latest entertainment facilities, and pop culture all gather at this city. Shibuya Station is the third busiest station in Tokyo after Shinjyuku Station and Ikebukuro Station with in average almost 3 million people passing through weekdays. Many of them commute from western suburbs of Tokyo and Yokohama. Shibuya Station is one of the important transport hub connecting to JR Yamanote Line, JR Saikyo Line, JR Shonan Shinjyuku Line, JR Narita Express, Tokyo Metro Hanzomon Line, Tokyo Metro Fukutoshin Line, Tokyo Metro Ginza Line and Keio Inokashira Line (8 lines operated by 3 different private operators).

Tokyo is going through drastic change in the run-up to the Tokyo Olympics 2020. One of the most remarkable projects is the redevelopment of Shibuya station, composed of 1 building construction (Shibuya Hikarie) and 4 districts around Shibuya Station. A leading railway operator Tokyu is the major developer of Shibuya. The company promotes commercial development around the station area, and they make significant profit from such businesses, not to mention increased fare-box revenues from enhanced ridership. The local government guides the development of Shibuya by providing such developers with pertinent incentives to make public contributions.

The Shibuya case brings a story how different land owners including different train operators sat together to agree on redevelopment plans, and how different actors, including Shibuya ward, Tokyo Metropolitan Government, national government as well as academia coordinated to accomplish the large-scale projects. In Shibuya, please also pay attention on how railways and subways are inter-linked. The Tokyu Toyoko Line, running between Shibuya and Yokohama ends at Shibuya but it connects to Tokyo Metro Fukutoshin Subway, allowing commuters' smooth travel to Ikebukuro station in the north and Wakoshi in Saitama in the north-west.



Tourism attraction in Tokyo

Tokyo Station and Marunouchi District

Tokyo Station was first built in 1914 and the design is said to be based on that of Amsterdam Central Station. Located between the Imperial Palace and Tokyo Station, Marunouchi is one of Japan's most prestigious business districts. During the Edo Period, Marunouchi (literally "within the enclosure") was located within the outer moats of Edo Castle and contained the residences of some of Japan's most powerful feudal lords. Together with neighboring Otemachi, Marunouchi is now home to the headquarters of many of Japan's most powerful companies, particularly from the financial sector.

Over the last decade, Marunouchi has been receiving a major facelift, led by the Mitsubishi Estate company, which owns a lot of the land in the district. Many older office buildings were replaced by new skyscrapers with offices on their upper floors and a variety of shops and restaurants on their lower floors. These newly opened shopping and dining complexes have revitalized the formerly unexciting business district and are drawing an increasing number of non-business visitors in recent years.



Imperial Palace

The current Imperial Palace is located on the former site of Edo Castle, a large park area surrounded by moats and massive stone walls in the center of Tokyo, a short walk from Tokyo Station. It is the residence of Japan's Imperial Family. Edo Castle used to be the seat of the Tokugawa shogun who ruled Japan from

1603 until 1867. In 1868, the shogunate was overthrown, and the country's capital and Imperial Residence were moved from Kyoto to Tokyo. In 1888 construction of a new Imperial Palace was completed. The palace was once destroyed during World War Two, and rebuilt in the same style, afterwards. From Kokyo Gaien, the large plaza in front of the Imperial Palace, visitors can view the Nijubashi, two bridges that form an entrance to the inner palace grounds.



Ginza District

The Ginza is Tokyo's most famous upmarket shopping, dining and entertainment district, featuring numerous department stores, boutiques, art galleries, restaurants, night clubs and cafes. One square meter of land in the district's center is worth over ten million yen, making it one of the most expensive real estate in Japan. From 1612 to 1800, today's Ginza district was the site of a silver coin mint (Ginza means "silver mint" in Japanese), after which the district was eventually named. The Ginza evolved as an upmarket

shopping district following the 1923 Great Kanto Earthquake.

Most shops in the Ginza district are open every day of the week. A visit is most pleasant on weekend afternoons when the central Chuo Dori street is closed to automobile traffic and become a large pedestrian zone.



Tsukiji Fish Market

Tsukiji Market is a large wholesale market for fish, fruits and vegetables in central Tokyo. It is the most famous of over ten wholesale markets that handle the distribution of food and flowers in Tokyo. Tsukiji Market is best known as one of the world's largest fish markets, handling over 2,000 tons of marine products per day. The sight of the many kinds of fresh seafood and the busy atmosphere of scooters, trucks, sellers and buyers hurrying around, make Tsukiji Market a major tourist attractions. In fact, the numbers of

visitors have increased so much over recent years, that they have become a problem to the course of business, as the aging market's infrastructure was not anticipated to serve as a tourist spot. Newly elected Tokyo Gov. Yuriko Koike has decided to postpone the relocation of the world-renowned Tsukiji fish market until the issue of soil safety at the new market in Toyosu. The Tokyo Metropolitan Government has set the time for relocating the operations of the Tsukiji fish market to the nearby Toyosu waterfront area at September to October, 2018.



(Reference: Japan Guide)

Site Visits in Seoul

Seoul Museum of History

The Seoul Museum of History, an institution established to protect and display Seoul's historic relics, remains, and houses, is composed largely of the main hall, Seoul City Wall Museum, Cheonggyecheon Museum, Dongdaemun History Museum, Dongdaemun Stadium Memorial, Gyeonggyojang House, Baekinjae Historical House, and Gyeonghuigung Annex Building. Each of these institutions retains its own significance and value in relation to the various aspects of Seoul's history, including its four mountains, city wall, streams, urban life, urban organizations, relics, and historic houses and sites. The Seoul Museum of History's main hall and numerous annexes form a kind of urban constellation that takes visitors on a journey through the long-established, time-honored history of Seoul.

The mission of the museum is to provide visitors with in-depth knowledge of Seoul City on all levels - historical, cultural, etc. - through interesting and meaningful exhibitions, activities, and events. The object is to preserve the traditional culture and history of Seoul so as to enforce the cultural identity of its citizens and promote public spirit, to collect and preserve cultural heritage on the verge of extinction, as well as research and exhibit the history and culture of Seoul, to provide Seoul citizen an opportunity to deepen their understanding and awareness of the city's history and culture and to enhance the image of Seoul as a leading cultural center, elevating its status within the international community.









Sang-am Digital Media City

Sang-am Digital Media City (DMC) is a state-of-the-art digital media entertainment (M&E) cluster located in a 569,925 m² area in Sang-am, Seoul. Sang-am has been considered as a gate way to the northwestern region of Seoul. With its geographical advantage, DMC is expected to greatly contribute to Korea's positioning in the knowledge-based market of the 21st century through its advanced IT, human resources, and entertainment capabilities as already demonstrated through the global phenomenon dubbed Korean Wave. DMC will be a core element of the new Sang-am Millennium City Plan along with the World Cup Stadium, World Cup Park, and Eco Village.

DMC will be the first place in the world where state-of-the art digital technologies coexist with the natural environment. An independent broadband optical communications network is built here, with wireless and satellite telecommunications services available to form the world's best broadband telecommunications system. Established as the world's best knowledge-based center through academe-industry-research collaboration, DMC will emerge as the centerpiece of contents production reflecting the history, culture, and economy of Korea. The applicability of digital media technology to daily lives and social activities will be tested. The DMC project is not just a simple urban development plan; it not only deals with the physical development of a new sub-center of a metropolis but also represents the first attempt to integrate the urban and economic development of Seoul. It will be the starting point for the future growth of social capital to lay the groundwork for Korea's sustainable development.







Pangyo New Town Development

Pangyo refers to a planned city surrounding Pangyo-dong, Baekhyeon-dong, Unjung-dong, and Sampyeong-dong of Bundang-gu and Siheung-dong and Sasong-dong of Sujeong-gu (Seongnam city).

Pangyo was approved for development in 2001 to alleviate the excessive demand for apartments in Gangnam and central Bundang. The Pangyo New Town Project was a national large-scale development project intended to lower the population density in the area and create a comfortable living environment by combining a residential area with a venture industry complex into an eco-friendly city among newly developed cities. According to the Ministry of Construction and Transportation, Pangyo New Town has 29,700 residential households spread over a land area of 9,388,472m2.

Pangyo was designed with large green spaces and parks along its streams. Waste facilities, energy plants, and sewage treatment facilities in the community were built to maximize energy efficiency with the use of green technology. Pangyo was issued by real estate speculation and apart application in the beginning. Also, it carried over that government of Seongnam city declared moratorium for the first time. World class medical centers with the latest technologies such as Seoul National University Hospital, Samsung Medical Center, and Hyundai Asan Medical Center are located near Pangyo.







Tourism Places

Hangang (Han River)

Running through the central part of the Korean Peninsula, the Hangang River flows from Gangwon-do towards Chungcheongbuk-do, Gyeonggi-do, through Seoul and continues on to the Yellow Sea. The river has witnessed the history of the Korean people for over five thousand years, through good and bad times. The riverside parks offer a nice retreat for the citizens of Seoul.

Hangang Park (한강공원) is a representative people's park located by Hangang River (한강). It was created through the "Hangang River Comprehensive Development Project" in the 1980s, covering a huge area that is dedicated to the citizens, providing areas for sports and relaxation. You can see many people strolling or jogging along the trail paths, in-line skaters, bicyclers, and soccer fields or basketball courts. The Citizen's Park is composed of Gwangnaru, Jamsil, Ttukseom, Jamwon, Banpo, Ichon, Yeouido, Yanghwa, Mangwon, Seonyudo, Nanji, and Gangseojigu — a total of 12 districts. Each park has its unique characteristics that fit the district, and especially Yeouido, Jamsil, and Ttukseom districts are very popular because of the ferry cruise services on Hangang River.





Lotte World Tower (Seoul Sky)

Lotte World Tower is a 123-floor, 555-meter-tall skyscraper located in Seoul, Korea. It opened to the public on April 3, 2017 and is the 5th tallest building in the world. In April 30, 2014, Lotte World Tower became the tallest building in Korea as it surpassed 305m(71 floors). Since then, every step of construction became the new history of architectural history in Korea as it broke the records. The completion of Lotte World Tower occurred in December 2016 after 2,234 days of construction. It introduced the birth of future oriented vertical metropolis organized of observatory, hotel, and residence among other things and will become the landmark not only for Korea but for the world.

The safety of the tower has been verified by it strong mat foundation on bedrock to support the weight. To assure safety, $72m(W) \times 72m(L) \times 6.5m$ (H) was constructed by digging the ground to 38m in depths, driving 108 steel columns of 1m in diameter and 30m in length through the firm bedrock layer to reinforce the bed rock, and then placing reinforcing bars of 4,200 ton and pouring high strength concrete of 60,000 ton. Also, with world's best level of wind resistance and earthquake resistance design, Lotte World Tower can withstand the gale of 50m/sec. and earthquake of 9 or higher on the Richter scale. To manage the structural safety of the tower, "Structural Health Monitoring System" monitors the structural safety and risk from typhoon, earthquake and terror with ore than 600 sensors and the cutting-edge measuring system installed in the building.

The design of the tower was motivated by the shape of pottery and brush that has the beauty of Korean curvature. The elegant curvature represents the fluid shape and simple beauty commonly show in Korean traditional objects. Lotte Wold Tower features its unique shape and clear identity with more than 21,000 curtain walls and 42,000 windows covering it. The walls and the windows express the two lines of notch section that runs across the center, emitting beautiful light toward Han River, Namsan, and the center of old Seoul.



Cheonggye Stream (Cheonggyecheon)

Cheonggye Stream (Cheonggyecheon) is an 11km long modern stream that runs through downtown Seoul. Created as part of an urban renewal project, Cheonggyecheon is a restoration of the stream that was once there before during the Joseon Dynasty (1392-1910). The stream was covered with an elevated highway after the Korean War (1950-1953), as part of the country's post-war economic development. Then in 2003, the elevated highway was removed to restore the stream to its present form today.

The stream passes under a total of 22 bridges before flowing into the Hangang River. Cheonggyecheon passes close to Deoksugung Palace, Seoul Plaza, the Sejong Center, Insa-dong Street, Changdeokgung Palace, and Changgyeonggung Palace, allowing visitors to easily visit major tourist sites after a leisure stroll along the stream. Cheonggyecheon festival is being held every weekend between April and November.

