Enabling connected and resilient cities for the communities in South East Asia

Insight into the Global Future Cities Programme in South East Asia
By 2025, roughly 440 cities in emerging economies will contribute to nearly half of global economic growth. If well managed and planned, urbanisation in rapidly developing cities can be transformative, creating jobs, reducing poverty, and improving citizens’ quality of life.

To encourage sustainable development and increase prosperity while alleviating high levels of urban poverty, the UK Government’s Foreign Commonwealth and Development Office have funded The Global Future Cities Programme (GFCP). This Programme aims to carry out technical assistance for a set of targeted interventions based on three thematic pillars: urban planning, transport and resilience. The Programme also plays a key role in creating significant short and long-term business opportunities in growing markets.

The 19 cities participating in the Global Future Cities Programme vary in size from megacities to intermediate cities and in age from ancient to as yet unbuilt. There are coastal cities vulnerable to sea level rise and cities in seismically active zones vulnerable to earthquakes.

These cities are among the world’s most dynamic economies as well as among those that have not yet realised their full potential.

By overcoming barriers and enhancing enablers for sustainable urban development, cities have the opportunity to address educational opportunities, wealth, job creation for men and women, and reducing inequality. They also will play an as essential role in delivering the United Nations’ 2030 Agenda for Sustainable Development, namely the Sustainable Development Goals (SDGs), Paris Agreement on climate change, Sendai Framework on Disaster Risk Reduction and New Urban Agenda. Collectively, these agreements offer a blueprint to a more sustainable planet by 2030 and beyond. While national governments are responsible for meeting the goals of these various agreements, it is also the responsibility of cities and local governments to reach those goals.

As home to the majority of the world’s population, cities are vital to reducing greenhouse gas emissions, eliminating poverty and ensuring preparedness in the face of natural disasters.
Global Future Cities Programme in South East Asia

› 13 projects
› 9 cities
› 6 countries
› 27m beneficiaries

The delivery partner, Mott MacDonald, together with Ernst & Young and Broadway Malyan are responsible for delivering the South East Asia component of the Global Future Cities Programme. Together, the partners are delivering 13 targeted projects in 9 cities across 6 countries. The projects include the development of technical solutions to support flood management, earthquake resilience, participatory urban design, integrated transport systems, green corridor master planning, smart ticketing and the development of data hubs.

The Programme has established strategic partnerships with UN-Habitat and UK Built Environment Advisory Group (UKBEAG), which has enabled opportunities and sustainable economic relationships between cities and international business.
The Story
A focus on gender equality and social inclusion (GESI) is essential for achieving the Programme’s primary purpose of delivering inclusive growth and poverty reduction. Other global policies and frameworks such as the UN Sustainable Development Goals also encourage us to consider the impact of our development work on the communities we seek to help.

GESI principles are integrated throughout the programme, from initial design through to final evaluation. To achieve sustainable progress, we must go further than merely analysing the needs of the local community – we must make time and space for all community voices to be heard. This means addressing the needs of society’s most marginalised people, whether women, persons with disabilities, the elderly or indigenous communities.

As programme manager, Mott MacDonald’s purpose is to ensure we deliver social outcomes through all of our projects. This emphasis on people – and on the positive impact our projects and services will have on the communities where we work – is critical to our success as a global business.

The Transformation
By putting GESI principles at the heart of the Global Future Cities programme, we are ensuring that all 13 city project interventions are designed and delivered to take account of the diverse needs of local communities affected. During the design stages, we encourage local people to participate and contribute. Our focus on GESI is combined with a commitment to promote climate and pandemic resilience.

At the level of programme and project design: we have developed GESI action plans for all 13 project interventions, which provide a step-by-step guide for city teams. These are aligned with the GESI framework and scorecard (see below), which chart the level of impact from Minimum Compliance to Empowerment and then Transformation:

<table>
<thead>
<tr>
<th>Minimum compliance</th>
<th>Empowerment</th>
<th>Transformation</th>
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<tr>
<td>Programmes that address basic need and vulnerabilities of women and marginalised groups</td>
<td>Programmes that build assets, capabilities and opportunities for women and marginalised groups</td>
<td>Programmes that address unequal power relations and seek institutional and societal change</td>
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In accordance with this scale, we aim to achieve transformative change in GESI by the end of each programme.

At the level of GESI capacity development: internally, the GESI team has provided training to 90+ staff. Externally, our in-country GESI leads are working with government, public and private sector agencies to inform colleagues, drive institutional behaviour change and promote inclusive policy development in this area.

The Benefits
There is a lot of GESI good practice happening across Global Future Cities. SEA’s six countries, demonstrating the wide reach of our impact.

In Malaysia, the Smart Integrated Mobility Management System (SIMMS) programme in Iskandar city is held accountable by eight community sector organisations that represent different marginalised groups.

In Surabaya and Bandung, Indonesia, we have quickly adapted to the disruption of COVID19 by holding WhatsApp, Zoom and telephone surveys to ensure the views of seldom-heard-voices and vulnerable groups are captured.

In Vietnam, technical workshops for the Ho Chi Minh City Smart Ticketing Systems (STS) programme have consulted Disabled Persons Organisations (DPOs) to ensure that key elements of the STS, such as payment guidance, will make access to transport easier for persons with disabilities.

In Thailand, the team provided GESI training for the Bangkok Metropolitan Administration (BMA) during the development of an Integrated Data Hub.

In the Philippines, we are working closely with the government to ensure GESI principles are fully integrated into housing policy design and the development of urban space.

“To create a more complete picture of how people experience space in urban life, all of the projects examined diversity through the lens of gender, including characteristics such as age and disability. These initiatives aim to strengthen the voice of the marginalised community by providing information and opportunities to vulnerable groups. We want to help people who are frequently left in the dark become change agents and actors in their own lives.”

Paul Hilton,
Programme Director
Global Future Cities Programme
Innovative global practices and local approaches that have inclusivity at the heart of their design are imperative for resilient and sustainable future cities.

*UN-Habitat as the strategic and capacity building partner to the Global Future Cities Programme (GFCP), has been promoting the focality of Gender Equality and Social Inclusion (GESI) as an essential strategy across all 30 projects to enhance inclusive prosperity in cities. The Strategy emerges from a reflective understanding of GESI as both a necessary process and an urgent/ imperative outcome of the development of truly transformative and impact-oriented urban interventions.

Therefore, not only do the GFCP projects steer iterative and participatory processes between City Authorities and Delivery Partners, but they further place a key emphasis on meaningfully engaging and involving relevant communities and priority groups: women, persons with disabilities, children, youth, older persons, and additional traditionally marginalized participants. Moving them away from the periphery of the agenda and recentring them as key actors, cocreators and voices throughout the entire life cycle of GFCP projects – with the central Agenda 2030 aim of leaving no one behind. The GESI agenda became even more relevant during the Covid-19 pandemic, as it revealed the extent of global vulnerabilities and inequalities and the need to develop innovative data collection and participation processes, which was demonstrated in the GFCP.

While the GFCP projects take place within a heterogeneity of territorial, cultural, and political contexts, as well as multiple thematic scopes, they are all unified by a commitment of project stakeholders to incorporate improved inclusivity in varied and effective ways across the 19 participating cities. nine of these cities are located across six countries in the Southeast Asia region. This has largely been achieved through application of the SDG Project Assessment Tool (SDG Tool) which provides guidance to the City Authorities and Delivery Partners in their design and delivery of more inclusive urban projects. The SDG Tool, catalyses crucial and productive discussions around inclusivity and offers clear benchmarks for attainment that can provide support to stakeholders at all levels in the mainstreaming of GESI efforts. Moreover, the GFCP builds upon existing progress towards inclusivity, integrating and leveraging on ongoing experiences. Some municipalities already had adopted approaches to inclusive urban planning in their agenda prior to the GFCP. For instance, in Bandung (Indonesia), gender mainstreaming in urban planning has been on the Bandung City Government’s agenda since 2017. This has since unfolded in innovative ways, such as through the Bandung Integrated Public Transport System which, among its various inclusive features, systemizes gender sensitivity in urban planning through enabling a broader range of safer mobility options for women. These integration efforts arise from a series of participatory dialogues with local gender-focused organizations that highlighted issues of personal safety and security regarding transportation as a major step towards gender equality. Inclusive urban development has also been on political agendas at a national level, as in the case of Iskandar Malaysia and Melaka (Malaysia) which has leveraged on the National Act 685 of the Laws of Malaysia – which requires that persons with disabilities have equal access to all public facilities and services – and such political intention has unfolded through GFCP led smart mobility projects.

The cities of the Global Future Cities Programme have the incredible opportunity to foster and further promote inclusive urban transformation at the heart its projects by actively working with communities, stakeholders and other programme implementing partners in the mainstreaming of GESI throughout multiple project phases - and to champion global approaches such as the localisation of the SDGs as they design inclusive and prosperous future cities that leave no one behind.*

Naomi Hoogervorst
Programme manager,
Global Future Cities Programme, UN-Habitat

On behalf of the UN-Habitat GFCP team
The Story
Bandung is Indonesia’s fourth most populous city, with one of the most congested transport networks in South-East Asia. A major cause is the lack of public transport. Currently, private vehicles comprise the lion’s share of journeys (62% motorcycles and 15% cars), while only one in five trips are taken by public transport (19% angkot minibuses and just 3% by bus). Improving the public transport network in Bandung will directly contribute to better and healthier lives for its 2.5 million citizens.

The proposed Integrated Public Transport System will respond to this growing challenge by prioritising future modes of public transport such as bus services, a digitised system for traditional minibuses, intelligent transport systems, BRT, LRT, NMT, commuter railway and even cable cars. The intervention is expected to increase the share of public transport and non-motorised transport. High-quality improvements to public transport services would include upgrades to pedestrian facilities, as well as the city’s existing cycle routes and bicycle culture.

The Transformation
How would an integrated approach to public transport planning be achieved? The project will gain the active engagement of the local Planning Agency, Bandung Transport Agency, Minibus Operators, and Community Groups with a focus on vulnerable groups. Rather than start afresh, the plans will integrate with existing plans and programs, such as the Local and Provincial Public Transport Plans, and public transport programmes supported by multi-lateral development organisations such as GIZ and World Bank. Likewise, it is important to anticipate future development, by understanding the current and future Bandung Fiscal Capacity, and the possible inclusion of low carbon mobility options.

The Global Future Cities Programme is supporting the development and consolidation of an integrated public transport network and planning strategy, as well as a business and operational model, stakeholder and community engagement plan and finally a project implementation road map. In addition, technical assistance will be given to help the city of Bandung in improving its planning capacity in terms of public transport management. Bandung’s citizens will also be consulted to incorporate their opinions on the new developments, and specific activities will be focused on improving their perception.

The Benefits
The aim is to improve local public transport service, journey quality and make Bandung’s streets safer, cleaner and more equitable for all its 2.5 million citizens. More efficient management of transport will help mitigate the environmental impact of congestion and improve the accessibility and security of mobility systems. This puts special attention on vulnerable groups, including women, children elderly and people with disabilities.

Increasing the number of public transport trips would alleviate the need for private vehicle usage, supporting the city’s commitment to climate change mitigation from the transport sector. Additional co-benefits, such as improving business conditions for informal sectors, improving the lives of low-income users, and creating jobs for informal sector workers would also be generated as a result of such public transport improvements.

The intervention contributes to capacity building of key local government agencies, as well as a low carbon mobility implementation plan and improved business opportunities for informal bus industry stakeholders.

“Bandung city is growing very fast, so the project needs to look at current and future needs. The priority must be adequate access to public transport, for all. Anyone who has ever tried to cross Bandung in rush hour will understand the need for change. This project can help clear the streets – and clear the air – in a way that boosts the city’s economy.”

Francois Brikke,
Country Lead,
Indonesia
Protecting Surabaya from the increased threat of earthquakes: How proactive measures can help build seismic resilience in Indonesia's second largest city

The Story
Surabaya will certainly be subject to damaging earthquakes in the future. The shifting tectonic plates beneath Indonesia create regular seismic activity, including high-magnitude earthquakes and tsunamis. The National Earthquake Centre of Indonesia recently released a new edition of their earthquake map that showed Surabaya, the second largest city in Indonesia, has a significantly increased potential earthquake threat. This finding is also supported by risk disaster assessment conducted in 2019 by Indonesian National Agency for Disaster Management. Mandated in the President’s mission in the National Development Plan 2020-2024, the government has formulated policies related to inclusive disaster management in line with the Sustainable Development Goals (SDGs), to develop a roadmap for earthquake hazard and risk reduction in Indonesia. The Global Future Cities Programme aims to support the Surabaya City Government and relevant stakeholders in achieving earthquake resilience. The intervention encompasses both pre-disaster preparedness and post-disaster recovery strategy, with special attention to women, children and the elderly, as well as people with disabilities.

The Transformation
This intervention has been designed to support the Surabaya City government by building the resilience capacity of local authorities on primary/secondary earthquake hazards to gain an effective and inclusive responsive and recovery strategy. The project will guide the prevention of new risks, reduction of existing risks, recovery from realised risks and strengthening of resilience among local government and communities, including women and vulnerable groups, by increasing awareness of environmental risks and existing gender role division. In combination, they will enhance the capacity of the communities, so they can function adequately after an event of disaster.

Working with the government, the project will prioritise and implement important emergency preparedness actions whilst establishing a well-networked, trans-disciplinary partnership, inter-sectoral collaboration with other government sectors, the private sector and civil society, that includes representative from vulnerable groups, to increase earthquake resilience. Stakeholders will have the opportunity to identify their roles and contributions towards emergency preparedness with a gender perspective that also considers the needs of the people with disabilities.

The Benefits
In the future, the City of Surabaya and its nearly three million citizens will be better prepared to face a significant earthquake. This is a unique opportunity for the City of Surabaya to comply with the National Regulations on Disaster Risk Management Minimum Service requirements, as well as to strengthen its preparedness and response capacity to potential seismic activity, therefore contributing to the relevant SDGs.

Based on a solid risk profile analysis and a participatory methodology, this intervention will identify critical areas of weakness and design actions and programmes to improve the city’s resilience capacity to improve its readiness to face future earthquakes. It will also contribute to the development of a gender responsive and inclusive earthquake preparedness strategy.

In doing so, the intervention contributes to the design of an inclusive public awareness campaign for all members of community, as well as to the design of post-disaster recovery activities and the enactment of an earthquake preparedness strategy. It will improve the city’s long-term capability in responding to earthquake hazards while adapting to sustainable practices. The project will also develop a post-disaster recovery financing strategy that includes a risk insurance or disaster bond mechanism.

"Fast-growing Surabaya is currently unprepared for increased seismic activity, which places its most vulnerable populations especially at risk. To ensure resiliency for all, they must be invited into the conversation. In particular, women’s unique perspectives, knowledge, and experiences regarding their local community are essential. This intervention aims to help the city identify areas of weakness and respond rapidly to potential disasters.”

Chandra Sugarda,
GESI Specialist, Indonesia
The key focus of this intervention is the development of a Surabaya Urban Transformation Plan to implement urban planning and socio-economic improvement and gender inclusion, through stakeholder engagement and a community action plan. Critically, our objective is to bridge the current gap in Surabaya between planning and implementation.

Monique Suksmaningsih, Team Lead, Surabaya Urban Transformation
Think smart to ease congestion in Malaysia’s economic corridor: How a coordinated mobility strategy will enable better-informed urban and transport planning decisions in fast-growing Iskandar Malaysia

The Story
Iskandar Malaysia is the main southern development corridor in Johor, Malaysia and has been rapidly growing since its inception in 2006. The region is strategically located across the causeway from Singapore, and is three times the island’s size, covering five local planning authorities. It is experiencing a rapid growth in population, which is expected to reach approximately three million citizens by 2025. The regional government has clear ambitions in terms of sustainable social development, climate resilience and high-quality living for all its inhabitants.

In light of this expected growth, the clock is ticking for a long-term solution that will optimise the transportation network. This imperative is needed to address the ever-worsening traffic congestion in the region, particularly at the causeway link from the mainland to Singapore, which is one of the world’s busiest border crossings.

The Global Future Cities Programme (GFCP) is helping the regional government to develop an integrated mobility management system to address the mounting transportation and mobility challenges at Iskandar Malaysia.

The Transformation
The programme will deliver two interventions at Iskandar Malaysia. The first aims to develop an implementation strategy for a Smart Integrated Mobility Management System (SIMMS) to enable better-informed urban and transport planning decisions. As the economic corridor grows and matures, SIMMS will help the authorities to connect a transport network that reflects their vision for equitable living and wellbeing.

The second intervention focuses on creating enabling conditions for data utilisation and management for Evidence-based Urban and Transport Planning (E-bUTP). This will include a direct link between SIMMS and the Iskandar Malaysia Urban Observatory (IMUO), a project by the GFCP’s city partner – the Iskandar Regional Development Authority (IRDA) – which is focused on using data and analysis to inform policy decisions.

This intervention also includes capacity building efforts to enable integrated use of data across sectors and authorities, consequently improving the adoption of smart technologies and data analysis in the Iskandar Malaysia region.

The Benefits
The interventions will help to optimise Iskandar Malaysia’s road network in terms of capacity and efficiency, subsequently reducing traffic congestion and greenhouse gas (GHG) emissions, as well as air and noise pollution. This will also increase the local government’s capacity to monitor and thereby better manage the potential transportation and mobility impacts as a result of the rapid growth in population and urbanisation.

The project prioritises gender equality and social inclusion, with particular attention to the improvement and understanding of the travel needs of different user groups, including the elderly, women, persons with disabilities or impairments and other vulnerable groups. Community engagement will bring these groups into the decision-making process so that their needs are reflected in the development of SIMMS.

Furthermore, this project allows for efficiency gains in urban and transport planning processes through a growing evidence-based approach and data sharing across different sectors and authorities for better coordination and economies of scale.

"We believe Smart Integrated Mobility Management System can help to synergise on the land use of Iskandar Puteri and lifestyle of our citizen. We acknowledge there is a need for a policy turnaround on how Majlis Bandaraya Iskandar Puteri (MBIP) plan and manage the mobility of our city. SIMMS will be a good tool for us to improve urban activity through public transport, transit-oriented development (TOD) and ensure service for special community.”

Ms. Chew Lee Ting, Head of Development Research and GIS, Department of Planning & Development, Majlis Bandaraya Iskandar Puteri
Transforming transport behaviour to preserve Melaka’s tourism appeal: How a green mobility network can help the historic Malaysian city reduce congestion and air pollution

The Story
Melaka may be one of Malaysia’s smallest states, but it carries huge cultural importance within the region. Famed for its antique shops and ornate architecture, the historical centre of Melaka City was declared a UNESCO World Heritage Site in 2008 and attracts visitors from across the globe.

This has drawn many international and domestic tourists to visit Melaka especially during the weekends. While this surge in tourists is a boost for the local economy, the city was built many centuries before and the infrastructure are not optimised for motorised vehicles. Narrow streets and restricted access, alongside high private transport usage and inadequate public transport systems, pose many traffic challenges. The heavy congestion has led to worsening levels of greenhouse gas emissions and air pollution.

The Global Future Cities Programme (GFCP) is working with Melaka State Government to enhance sustainability of mobility systems by triggering behavioural change among residents and tourists.

The Transformation
The programme will deliver two related interventions. Firstly, the Green Bus Network Implementation Plan will facilitate the implementation of infrastructure and mobility along key access routes in Melaka. This intervention aims to transform the bus service into a sustainable and efficient network that will offer modern bus infrastructure and enable the roll-out of public transport technologies.

Meanwhile, the Heritage Area Integrated Mobility Plan will link to the proposed bus network to ensure sustainable travel in the city’s central area. The authorities recognise the need to reduce the lengthy transport delays that risk impacting the experience of visiting Melaka’s historic sites and cultural attractions.

This plan will also promote technology solutions to assist the city’s recovery from the COVID-19 crisis. Visitors will interact with apps that propose alternative modes of transport with a focus on intelligent transport systems (ITS), public, water and non-motorised transport.

The Benefits
These two interventions will encourage a modal shift away from private motorised vehicles, such as cars and motorbikes, towards renewable energy public transport and non-motorised vehicles. This transformation will lead to a healthier and less stressful urban environment, due to increased road safety, reduced congestion, as well as reduced air and noise pollution.

Gender, Equality & Social Inclusion (GESI) is built into the development of both interventions, with the provision of inclusive, safe and accessible public transport for all. The programme brings a particular focus on vulnerable groups such as mobility-impaired users, women, children and the elderly. These marginalised groups will also be empowered by capacity building initiatives, which could lead to additional employment opportunities.

Furthermore, the interventions will help promote increased connectivity between residential and economic areas, and reduced travel times into tourist hotspots. City-wide use of journey planning applications will contribute to better overall productivity and improved employment prospects.

The Interventions
Melaka Green Transport Masterplan, Green Bus Network and Heritage Area Integrated Mobility Plan

Location
Iskandar Malaysia, Malaysia

“The Melaka interventions aim to improve mobility and public spaces across the state with a special focus on the heritage zone. When implemented, they will serve as a leading example for other cities in Malaysia to ‘Build Back Better’ following the COVID-19 pandemic. Capacity building, an integral element of our programme, will further develop urban planning and heritage conservation skills within local planning authorities. This bodes well for the long term development and prosperity of Melaka.”

Michael Curthoys, Country Lead, Malaysia
Revitalising streetscapes to unlock Yangon’s historic assets: How the city’s development authorities are taking an inclusive approach to recover Myanmar’s prime urban centre for its people and businesses

The Story
Yangon is one of Asia’s great cities, with an unparalleled collection of heritage buildings, a network of lakes and parks and well-designed, but rapidly deteriorating system of footpaths. When the government lifted tariffs on cars in 2013, Yangon’s roads quickly became overly congested with cars. This resulted in footpaths being replaced as car parking spaces, contributing to increased traffic congestion, poor walkability, lack of accessibility, and unsafe footpaths.

A change emerged in 2016 through the work of the city authorities, the Yangon City Development Committee (YCDC), and local NGO to revitalise its city landscape. Yangon’s leaders and civil society committed to demonstrating how public space could be made safe, clean, walkable, and prosperous for businesses and the public. The Global Future Cities Programme (GFCP) South East Asia provided support to find that balance again, and to prepare Yangon and its leaders a new way to recover the lost public space and its associated cultural, social, environmental, economic, and financial benefits.

This project evolved from the need to find new solutions to public space management and upgrades at a time when the UK government was looking to identify how best to support the Yangon city authorities to achieve its ambitions. The Myoe Lann Thar (MLT) project, meaning Pleasant Urban Streets, emerged from these consultations.

due to the political developments in Myanmar. The project quickly adopted to prepare a series of participatory urban design and policy toolkit to capture the lessons identified and to allow the project to re-start when the political context allows.

The Transformation
The MLT project is built on a foundation of consultation and collaboration with the people who know the city best: its residents, businesses, civil society, and government leaders. YCDC is responsible for the management and upgrade of public space in Yangon and acts as the project’s core partner. YCDC is actively involved in decision-making in all phases of the project to ensure the long-term impact of the GFCP in Yangon. The MLT project includes a capacity building programme as the main part of its scope. This has been tailored to overcome the challenges and impact of COVID-19 and involves learning-by-doing and on-the-job training to ensure new knowledge and skills are engendered. The tailored approach ensures that new ideas and change are brought to Yangon, but also adapts to the specific political, social, cultural, economic, governmental, and historical environment in which the complex work of public space management and improvement takes place.

The actual experience of MLT has formed a real-world pilot that illustrates how best-practice public space management upgrades can be done in Myanmar. These activities are carried out in collaboration with local authorities, opening opportunities for them to learn these practices at the same time.

The Benefits
The benefits of Yangon’s authorities being able to undertake good, collaborative public space upgrade and management are transformative to improved health, economic, environmental, social, and accessibility outcomes for its citizens. Making public space inclusive and accessible for all residents, including the vulnerable community groups, makes social and economic contributions to the city and improvements to its living standards. These benefits increase while reducing the negative financial, environmental, and administrative impacts.

In the project’s work with people with disabilities, MLT has made early progress in linking the city with this group of constituents and public space users who currently do not have easy access to public space due to high curbs, lack of ramps, poor footpath surfaces, etc.

The project has also been able to ensure that the preferences and needs of local communities are captured and incorporated into the design process through a robust, COVID-safe public consultation programme. This involved a series of online forums and activities with the community.

Although the project was paused, the lessons learned to-date and the outcomes of the participatory design process have been carefully documented. They will allow the possible continuation of the project when conditions in Myanmar have improved and the international donor community is ready to re-engage with the country.

“Myoe Lann Thar provides practical experiences and solutions to the many challenges that Yangon faces when attempting to revive its public spaces. Through this project, the local authorities gain new methods to unlock the opportunities that exist in upgrading public space through an inclusive design process. Making Yangon’s public spaces accessible, healthy, green, prosperous, is a key step towards making Yangon one of the most liveable cities in Asia. This is the vision of MLT and our partners.”

Rupert Mann
Team Lead, Revitalising Streetscapes, Unlocking Yangon’s Assets
Creating a benchmark for sustainable urban planning in the Philippines: How the delivery of an integrated sustainability plan for New Clark City will set the standard for people-centric and disaster-resilient development in Asia Pacific

The Story
New Clark City (NCC) is a flagship project of the National Government of the Philippines - a new city that’s planned to be 9,450 hectares in size and reach a population of 1.2 million, while providing 800,000 jobs. Driven by the Bases Conversion and Development Authority (BCDA), the vision for NCC is a business-friendly, green, and people-centric metropolis, strategically located in the middle of Central Luzon, the high-growth industrial heartland of the Philippines and Asia Pacific. The city is seen as a symbol of a modern Philippines and has the unique opportunity to showcase sustainable urban planning and development - a benchmark for environmental resilience in a region that’s heavily impacted by natural disasters.

NCC intervention, as part of the Global Future Cities Programme brings opportunities to evaluate and complement the current master plan with the development of an integrated sustainability plan. Our focus will be on providing more affordable and inclusive housing, mixed-use planning, walkable neighbourhoods and resilient and accessible open spaces.

There is also an opportunity to promote and embed a culture of community consultation and participatory design into the future planning process. This will help address the needs of the existing and future communities within NCC, including government locators, farmers, indigenous people and people affected by the project.

The Transformation
The ultimate goal is to deliver an integrated sustainability plan for NCC: helping the metropolis become a showcase for planning by enhancing public space availability, promoting a nature-based approach to design, encouraging the use of non-motorised ways of transport and the creation of mixed use and inclusive developments.

There are three specific sub-interventions. The first will design a park within NCC that integrates with the overall open space network of the city, providing inclusive prosperity, accessibility and sustainability that will become a model, benchmark and symbol for Philippine parks nationwide.

The second addresses the needs of the existing and future communities within NCC – such as government locators, farmers, indigenous people and people affected by the project – and will contribute towards inclusiveness and social justice.

Finally, the establishment of a dedicated Sustainability Unit aims to further strengthen the internal organisation of BCDA, especially in localising the Sustainable Development Goals (SDGs) and embedding sustainability based on Key Performance Indicators and benchmarks.

The Benefits
The combined interventions will lead to the creation of more sustainable urban environments - creating more inclusive economic growth, reducing poverty and gender inequality, and increasing mobility and universal accessibility. NCC will offer space to live and work that are safer and more resilient to disasters, help protect and enhance existing and environments and ultimately, result in a better quality of life for the existing and future residents of the city, and the wider Central Luzon region.

On a more specific level, the impact of NCC Central Park will be of regional and national significance, becoming one of the largest public parks to be built in the Philippines over the last 50 years – and the centrepiece of the metropolis. Covering an area of over 44.8 hectares (448,160 square metres of land) it will become an exemplar for the planning of future open spaces in NCC and the Philippines and become a key part of a green recovery plan.

“The ultimate goal of this intervention is to embed a culture of sustainability within the new city including its planning and governance. By doing this we will improve the quality of life for the existing and future residents, and create a benchmark for urban solutions in the Philippines.”

Junisse Mercado
Country Lead, Philippines
Development strategy envisions bright future for the Queen City of the South: How long-term planning aims to help Cebu City maintain its position as a centre of tourism and business, and address growing concerns around overpopulation

The Story
Cebu City is known as the Queen City of the South in the Philippines, due to its commercial potential, beautiful coastline, historic streets and fine local beaches. This combination is attractive for tourists, with millions of sight-seers visiting the island every year. For businesses too, Cebu City is a favoured destination, with key industries in shipping, tourism, and business process outsourcing.

Geographically, the city consists of narrow coastlines, steep mountains, and limited coastal plains—most of which have already been developed. As the economic centre of the region, Cebu City also attracts large swathes of jobseekers from its surrounding provinces. This influx continues to strain the city’s capacity to adequately and safely house its ever-growing population. The unregulated urban sprawl has resulted in the growth of informal settlements in unsafe areas adjacent to waterways, within the rights of way of infrastructure, and in flood prone areas.

The Transformation
The city development strategy, with its focus on housing and integrated urban planning, aims to respond to these urban challenges with long-term planning around priority areas: affordable housing, secondary and tertiary flood management, drainage improvement, and traffic management. Effective implementation will rely on the enablement of evidence-based monitoring and management at a city-level. Developed with the United Nations’ Sustainable Development Goals (SDGs), sustainability, and GESI at their centre, the strategy aims to improve the quality of life and economic prosperity of the entire population.

To secure its success and relevance to the needs of the city, the Global Future Cities Programme (GFCP) of South East Asia is working closely with members of government in all key areas of city development, as well as grassroots organisations operating in the housing and housing access spaces, and the communities the intervention aims to benefit.

The Benefits
The target outcomes for the programme include enhanced urban governance that encourages the formulation of robust and effective policies and regulatory frameworks. The intervention also seeks to incorporate citizen-centred data in its planning and monitoring activities, so that value, impact, and relevance to its people is taken into consideration in the pursuits of its city improvement and infrastructure building programmes. The outcomes will also lead to better planning and management that is gender responsive, inclusive, innovative, and contributes to urban resilience and progress towards achievement of the SDGs.

“At the heart of it, it’s all about the people—about uplifting and empowering them to shape and take their lives in the direction they choose. The Future Cities Programme isn’t just about bringing in the latest in smart technology or cutting-edge design, it’s about using that to create a safe, inclusive, and equitable environments that places its people, welfare, and access to opportunity at the centre.”

Benjamin Adapon
Assistant Project Manager, Cebu, Data and Strategic Foundations for Long Term Planning
“Our goal is to enable an improved quality of life for the citizens of Bangkok through the delivery of a fully functional flood management decision support system that will help the city to manage and mitigate the impacts of local flooding events.”

Richard Wood
Team Lead,
Bangkok, DSS for Flood Management Intervention

Bangkok flooding: proactive decision making to mitigate disruption
How digital twinning of flood models can help the megacity to ‘see the unseen’ and prevent the socio-economic damage of high-intensity rainfall

The Story
Bangkok’s geographical location in the lower Chao Phraya River Delta is both a strength and a weakness. While the megacity profits from fertile farmland and strategic trade routes, the river basin is vulnerable to annual flooding. In recent decades, rapid urbanisation has exacerbated the impact of flooding to the local economy by interfering with natural water courses and stormwater drainage systems. Green spaces, which act as a retention area during flooding, have greatly decreased. The city recognises the need for more water retention areas, however development is currently not adequately guided by flood risk considerations.

The Transformation
The Bangkok Decision Support System (DSS) for Flood Management Intervention aims to increase BMA’s ability to undertake short, medium and long-term planning for flood risk management and optimise flood mitigation strategies and related investments. The DSS will combine well-proven technologies such as Geographical Information Systems (GIS) and hydraulic modeling with the latest data science techniques, such as machine learning, to add value to existing data, inform decision making and help institutionalise proactive flood management practices.

On a designated pilot study area, the intervention will develop a flood model that can be run in near real-time to support operational decision making. This model will then be used to identify and evaluate stormwater retention opportunities. In parallel, BMA’s existing rainfall forecasting system will be enhanced with additional radar equipment to provide more accurate predictions. The final stage involves the integration of flood model outputs and rainfall forecasting on Moata, an award-winning technology platform that creates a digital twin of the flood site. BMA will gain the power to ‘see the unseen’ and anticipate where flooding will happen, so that specific flood warnings can be broadcast in advance.

The Benefits
The benefits to Bangkok’s citizens from the DSS Intervention are increased resilience and reduced socio-economic and environmental damage caused by localised flooding events. The overall objective is help create more sustainable urban environments that enhance inclusive economic growth, reduce poverty and gender inequality, increase mobility and remain safe and resilient to disasters.

If BMA decides to adopt the DSS longer term, the pilot study could then be scaled up to provide near real-time flood warnings directly to local communities across the city. The DSS is also a pilot project for a wider Integrated Data Hub for BMA, which aims to increase their capacity to apply data science techniques to inform decision making across the city. The system has been designed in a modular way to connect additional data feeds and analytics so it can be expanded to analyse wider impacts, such as how flooding impacts on traffic. Development of the DSS seeks to increase community participation, employment opportunities, flood management skills and equal opportunities for all, including marginalised groups and women.
It is necessary for the Bangkok Metropolitan Administration (BMA) to collaborate with the different sectors to be able to address the needs of the people in Bangkok more effectively. This intervention is a good enabler to manage data more effectively and to address the data standards and data governance aspect in an effort to enhance our ability to publish and utilise the data for the public.

Mr. Prasopsook Pimpagovit
Deputy Director-General of the Strategy and Evaluation Department at Bangkok Metropolitan Administration (BMA)
Reducing congestion and increasing social equality in Bangkok’s suburbs: How multi-modal transport planning can help regenerate an area of historic importance in Thailand’s capital city

The Story

The traffic congestion in Bangkok, Thailand has always been a challenging issue for commuters. The transport networks in the capital lack the necessary infrastructure to provide safe and comfortable access to many destinations in the city. Furthermore, the prioritisation of mass transit stations to decongest strategic areas of the city in recent decades has caused suburban gentrification and the displacement of low-income communities. The Khlong Bang Luang (KBL) district, located approximately 10 km from Bangkok’s city centre, is typical of this disconnected approach. Famous for its floating markets, KBL is home to scenic canals that are lined by low-rise residential areas and tourist attractions, such as ancient temples. The area is serviced by bus transport, as well as the elevated mass transit system to Bang Wa Station. The precinct also has a direct link to Bang Wa Pier, a launch bay for tourist boat services across the historic canals, which eventually connects with the Chao Phraya River.

The Global Future Cities Programme is supporting Bangkok Metropolitan Administration (BMA) in Transit-Oriented Development Planning (TODP) which aims to increase the use of public transport and decrease traffic congestion. At the same time, TODP aims to boost the local economy in KBL and Bang Wa, and improve the quality of public spaces and amenities – with a focus on bringing positive changes to the traditional local communities.

The Transformation

The vision for the project is to demonstrate the contribution of transit orientated development (TOD) towards a more inclusive society. Therefore, the intervention sets out to identify the potential for changes and finds a development strategy that will add value to the existing landscape. The presence of a rich heritage within the area – including ancient canals and temples provides an anchor for eco-tourism that co-exists within a low-carbon neighbourhood, where walking and cycling is encouraged. By regenerating and improving the long-standing canal network, and integrating multi-modal transport to connect mobility networks, the programme will help the community gain better access to public transport and return the canals to their former glory.

Exploring the potential for increased development density within a 400m radius of Bang Wa MRT station will also aid the creation of a vibrant and inclusive mixed-use community with diverse cultural, green and artistic activities. Furthermore, as part of the TOD initiative, there is an opportunity to explore financing, investment and value capture mechanisms. These will capitalise on the public transport infrastructure with long-term economic strategies that can be used to fund public projects and improve the quality of life for the local population.

The Benefits

Equitable TOD aims to elevate and prioritise investments and policies that close the gap between residents of different socio-economic groups. By amplifying diverse neighbourhood voices in the decision-making processes, the intervention will help realise community-focused benefits, such as affordable housing, improved public health, strong local businesses and environmental sustainability.

Community engagement will equip the programme to create a three-pronged urban transformation plan, where urban meets nature and old meets new. Firstly, tourism: offering a destination to visitors that capitalises on the unique character of the area through the integration of heritage and ecotourism. Secondly, education: elevating the current synergy between the university and the community to create a knowledge hub and student campus. Thirdly, lifestyle: turning the Bang Wa and KBL area into a great place to live for all. The dense and vibrant town centre will combine a mix of land uses that support existing and future community needs in the area – and all within a safe, secure and accessible environment that is both pedestrian and cycle friendly environment.

"As a native in Phasi Chareon district and representative of Klong Bang Luang community, I feel very fortunate that the TODP project acknowledges the value, potential, and resources we have. I hope in the future, Klong Bang Luang can transform to be a new tourist destination for canal travel. I am thankful for the support from the British embassy for their acknowledgment of a small community like Klong Bang Luang and the Global Future Cities Programme for enabling a more inclusive and sustainable environment for all of us - It is truly a dream come true."

Somchai Phuengsilp
Resident of Klong Bang Luang, Phasi Chareon District
Capturing flood data to mitigate climate change in Ho Chi Minh City: How a Geographical Information System (GIS) database of the drainage system can help reveal threats to the city's current and long-term resilience

The Story

Ho Chi Minh City (HCMC) ranks among the ten cities in the world most likely to be severely affected by climate change. Large parts of the city are likely to be affected by floods on a regular basis, causing damage to key infrastructure and having significant economic impact. Many of the city’s canals and drains are old – and many of these have been built over in recent years, further reducing the system’s ability to meet the demands of a growing population.

The city faces pressing issues around drainage network data management. The current database has not been maintained, resulting in critical gaps. With the system at the edge of its capacity, the city will struggle to manage and prioritise drainage network improvements.

The consequences of storms, floods, heatwaves and other impacts can be devastating: accelerated degradation of buildings and infrastructure; failure of water, sanitation, energy, transport and communication services; risk of contamination from wastewater and, not least, loss of lives and livelihoods. The Global Future Cities South East Asia Programme is leading the development of a climate resilience intervention that will help HCMC to focus efforts and resources on raising levels of preparedness and resilience.

The Transformation

HCMC is typical of the rapid urbanisation that is happening across the world. In fact, more than half of mankind now live in cities, while climate change is posing an increasing threat to global social and economic infrastructure. The intervention therefore aims to find innovative solutions to ensure HCMC evolves into a robust city that can withstand the impacts from climate and non-climate risks.

The primary objective is to develop a Geographical Information System (GIS) database for the drainage system of the city. The core system will be developed with a baseline project implementation, capacity building and a long-term development strategy, as well as technical preparation to facilitate further integration in future.

By developing a GIS database, the intervention will specifically contribute to better management of the city’s drainage system with the goal of mitigating the effects of flooding in HCMC. A collaborative approach is needed to deliver value-adding outcomes, backed by industry-leading domain expertise in GIS development and flood modelling.

The Benefits

GIS and flood modelling will help the city in several ways, by providing access to comprehensive data that will support decision-making by government and stakeholders. Benefits range from improved understanding of drainage network performance and flooding events to recommendations for flood mitigation measures, as well as transformation of urban management related tasks in HCMC – including enhanced ability to target and prioritise infrastructure investment.

HCMC will gain in resilience by achieving better management of the city’s drainage system, which will become more efficient, effective, equitable and climate resilient. The intervention will also help to assess the current situation and practices, and review international best practice and climate projections to develop future guidance.

By developing flood management solutions, whereby incidences and severity of flood events can be better predicted and reduced, the government can better mitigate the negative social and economic impacts of flooding in HCMC. Through lessons learnt, training and capacity building, especially at the Department of Construction, the impact will sustain beyond the scope of the programme.

"Climate change poses an increasing threat to global social and economic infrastructure. The Global Future Cities South East Asia Team and Local City Organisations are leading the development of a climate resilient Ho Chi Minh City by finding innovative solutions and implementing smart technology. Collaboratively, we will integrate connected thinking and technical solutions to help diminish HCMC’s key infrastructure issue – flooding."

Andy Girvan
Country Lead,
Vietnam
Smart ticketing to promote public transport in Ho Chi Minh City: How an integrated and digitised ticketing system can help drive increased adoption of public transport for a cleaner, more sustainable and fairer city.

The Story
Ho Chi Minh City (HCMC) is taking action to reduce its chronic dependency on private transport for mobility. With a population of nearly nine million, Vietnam’s largest city is home to a dependency on private transport which contributes to worsening congestion and harmful emissions. Public transport (PT) services are currently limited, with buses and water taxis providing the main alternative to private ownership – an imbalance in mode share that adds to the economic inequality and access to transport among disadvantaged groups in society.

To improve public transport, long-term plans include up to eight new Mass Rapid Transit (MRT) routes and up to six Bus Rapid Transit (BRT) routes. This large-scale investment aims to accelerate HCMC’s evolution from its present ‘coordinated’ transport system to a city-wide multi-modal ‘integrated’ transport scheme.

As part of this change, the Global Future Cities Programme is involved in a city-wide smart ticketing initiative that will make it easier for passengers to ride PT – and ultimately decrease HCMC’s damaging reliance on motorbikes.

The Transformation
For a city of this size, there are inevitably a wide range of existing and planned mobility services across HCMC. From a technical perspective, the HCMC Smart Ticketing System (STS) will encourage and enable interoperability amongst independent large-scale investments in smart ticketing, whilst ensuring a broad variety of payment options to serve passengers of all backgrounds meeting gender and social inclusivity principles.

The STS intervention will develop technical, institutional and governance frameworks, informed by capacity-building at each stage of the project. Additional deliverables include a Back Office System (BOS) for the STS and the delivery of a pilot survey on preferences towards smart ticketing and other fare-related matters.

The intervention aims to increase the mode share of PT to at least 20%; provide comprehensive data to support decision-making processes of government and stakeholders; improve the capacity of city authorities to deliver and manage PT, and help enable the transformation of the public transport sector in HCMC.

The overall objective of the Intervention is captured in SDG 11.2: “to provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons”.

The Benefits
The expected long-term impacts of the intervention are to increase accessibility to transport services, especially for low-income and marginalised groups. This goal is supported by the development of a Technical Standard Framework (TSF) for smart ticketing, which will be integrated into conventional bus network and future BRT and MRT routes. City authorities will receive help to promote more sustainable mobility and change peoples’ behaviour away from private ownership to lower-carbon shared PT. The intervention will also enable and provide data to inform age- and gender-responsive planning and investments in transport for sustainable, safe and accessible urban mobility for all.

Digitalisation and innovative transport technologies will provide wider options for users and non-user of the STS to make more informed environmentally friendly choices that support sustainable economic growth.

Finally, the intervention will support clear, transparent and accountable contractual relationships between relevant stakeholders, including local governments, transport and mobility service providers, payment service providers and users on data sharing – whilst protecting the public interest, preserving individual privacy and providing a framework for mutual obligations between such stakeholders.

“Seamless travel enabled by a single smart ticket and standardised communication approach on all modes of public transportation in HCMC in the future will offer many benefits to vulnerable passengers, in particular the deaf and hard of hearing community who is one of Disability Research and Capacity Development (DRD) partners. Integrated smart ticket scheme will increase their confidence and reduce discrimination against beneficiaries of special public transport concessions.”

Mr. Cu Van Nguyen
MBA – Vice Director
Disability Research and Capacity Development (DRD)
Connect with us to find out more.

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