

# STRUCTURE PLAN FOR GREATER ACCRA METROPOLITAN AREA

IMPLEMENTATION PLAN AND  
INVESTMENT PLAN



**COWI**

in association with



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# Purpose of the Implementation Plan and Investment Plan

This document includes two plans: the **Implementation Plan (IP)** and **Investment Plan (InvP)** for GAMAPLAN 2040. The IP outlines the required budget and timelines to implement the actions proposed by the GAMAPLAN. These actions aim to achieve the policy objectives, goals, and vision stated in the Structure Plan. Additionally, the IP identifies key stakeholders responsible for overseeing the implementation process. However, it is worth noting that executing all the policy actions will be challenging due to the massive amount of resources required.

The InvP therefore selects the key policy objectives and actions from the GAMAPLAN and formulates a spatial investment strategy to accomplish them. The strategy comprises four investment levels, namely centers, inner core, outer core, and periphery, along with protected areas of GAMA. For each investment level and protected area, the InvP outlines major actions that need to be taken. The numbering of policy objectives and actions in the InvP corresponds to that in the IP. This alignment ensures that an action identified in both plans carries the same number, simplifying access to the implementation and investment details for such actions. It is highly recommended that the Investment Plan is implemented alongside the information provided by the Implementation Plan.

# Implementation Plan

The **Implementation Plan (IP)** aims at realizing GAMAPLAN 2040 during its 15-year period of implementation. The IP is based on GAMAPLAN's hierarchical structure, including its vision, goals, objectives, and actions. At its core, there are over 800 actions that, when implemented, will lead to the achievement of the specified objectives in GAMAPLAN. By realizing these objectives, GAMAPLAN contributes to the fulfilment of 20 goals. Ultimately, when all 20 goals are achieved, GAMA will have successfully realized its vision for the year 2040.

The IP specifies an **estimated cost for each action**, categorized as low, medium, or high. The low-cost actions primarily involve administrative processes and the provision of basic amenities related to waste management, civic education, landscaping, and reforestation programs. Medium-cost actions encompass activities such as provision of boarding facilities for head porters, day care centres attached to markets, dredging of neighbourhood channels and the protection and preservation of ground and surface water resources. On the other hand, high-cost actions include investment projects that involve capital expenditure and require extensive technical expertise, such as the implementation of the GREEN GAMA GRID network and the development of proposed urban centres.

Furthermore, the IP outlines the **timeframes for each action**, with short-term referring to 1-5 years, medium-term spanning 6-10 years, and long-term encompassing 11-15 years. For instance, actions addressing social development and accessibility needs with relation to health, education, and waste management are planned for the short term as they are seen as key to make GAMA a more liveable place with equal opportunities and access to basic infrastructure/services for all. Actions addressing environmental issues are related to the introduction of more open spaces, non-motorised transport networks, dredging of streams and rivers, etc; they are scheduled for the medium term. Finally, actions related to parks' improvements, development of compact housing, infill development and redevelopment initiatives are planned for the long term as they may require more time to be implemented fully.

The IP identifies the **entity or entities responsible for each action**. In some cases, a single entity is responsible, while in others, multiple responsible entities are designated as well as an action leader. While the Ministry of Local Government and Rural Development will lead the overall implementation process, most of the actions in the plan fall under the jurisdiction of the 32 Metropolitan, Municipal, and District Assemblies (MMDAs) within the GAMA area. These MMDAs are responsible for administering the entire GAMA region at the local level. Additionally, the Department of Urban Roads (DUR) serves as the primary institution responsible for implementing technical infrastructure projects related to access, mobility, and transportation. The Land Use and Spatial Planning Authority (LUSPA) will be responsible for monitoring implementation and hold occasional updates on progress. As part of the MLGRD, LUSPA will be coordinating the implementation efforts of institutions mentioned in the IP.

The purpose of the IP is to provide clarity on the implementation process, required actions, responsible entities, and timelines. It serves as an action plan that translates GAMA's strategic vision into specific actions. By offering a structured approach, the IP ensures the successful execution of project initiatives, considering timelines, budget requirements, and the involvement of responsible institutions and stakeholders.

The implementation plan outlines a comprehensive set of 20 improvement goals across five distinct visions for the Greater Accra Metropolitan Area. These visions encompass crucial aspects such as land use; accessibility, connectivity and mobility; economic development; environment and climate change; as well as infrastructure and services. Each goal is further broken down into specific objectives, which are then divided into a total of 834 actions. These actions have been assigned to various implementors, categorized as lead, key partner, or secondary partner.

## Actions – "Timeframe and budget"

Each action is accompanied by an estimated timeframe and budget allocation. The timeframes are categorized as short term (1-5 years), medium term (6-10 years), or long term (11-15 years). Similarly, the budget allocation is classified as low, medium, or high.

Most actions match between budget and timeframe, hence short-term actions are usually also low budget, medium term projects are medium budget and long-term projects are high budget. However, there are some variations from this pattern. This means that the short-term action theoretically can be high budget, and vice versa. The different combinations are shown in Figure 1.

The figure below provides a breakdown of actions, their respective timeframes, and budget allocations. Column A shows that most actions - 435 actions - (53%) have matching time-frame group and budget group. Column B indicates that for 311 actions (38%), the timeframe and budget vary by one group. This happens when a short-term action has a medium budget, medium-term action has a high budget etc. The last group of actions in column C is the group with the largest gap between timeframe and budget, i.e. short-term action with high budget or vice versa. This group contains only 76 actions (9%).

Figure 1: Relation between time frame and budget

	A	B	C
	Short/Low Medium/Medium Long/High	Short/Medium Medium/High Medium/Low Long/Medium	Short/High Long/Low
Actions Total	435	311	76
Percentage	53	38	9

Source: COWI

## Goals and types of actions

The 20 goals are further broken down into an average of 42 actions per goal. The distribution of actions varies, with Goal 18 having only 8 actions and Goal 4 having 152 actions. Figure 2 provides an overview of all actions for each goal, including their estimated period and budget allocations.

Figure 2: Timeframe and Budget for all actions

		Period				Budget Group				Time frame/ budget group
Goal	Actions total	Short	Medium	Long	NA	Low	Medium	High	NA	Correlation coefficient
Goal 1	92	49	25	18	0	45	21	22	4	1.0
Goal 2	30	1	7	22	0	5	3	22	0	0.9
Goal 3	9	2	5	1	1	1	3	4	1	0.2
Goal 4	152	62	49	40	1	63	36	52	1	0.9
Goal 5	17	5	7	5	0	8	5	4	0	0.8
Goal 6	12	7	3	2	0	4	4	4	0	0.7
Goal 7	64	36	24	4	0	47	10	7	0	0.9
Goal 8	28	6	14	8	0	18	4	5	1	0.1
Goal 9	20	18	2	0	0	20	0	0	0	1.0
Goal 10	60	45	12	3	0	42	11	7	0	1.0
Goal 11	47	34	10	3	0	38	7	2	0	1.0
Goal 12	53	32	17	4	0	24	19	10	0	0.9
Goal 13	32	24	6	2	0	16	8	8	0	0.9
Goal 14	75	51	16	7	1	32	20	22	1	0.8
Goal 15	36	15	14	7	0	10	13	13	0	0.8
Goal 16	15	5	7	2	1	3	8	3	1	0.9
Goal 17	56	33	15	6	2	20	22	12	2	0.8
Goal 18	8	2	6	0	0	5	2	1	0	0.3
Goal 19	13	12	0	0	1	7	3	2	1	0.9
Goal 20	15	1	11	3	0	6	3	6	0	0.02
Sum	834	440	250	137	7	414	202	206	12	

Source: COWI

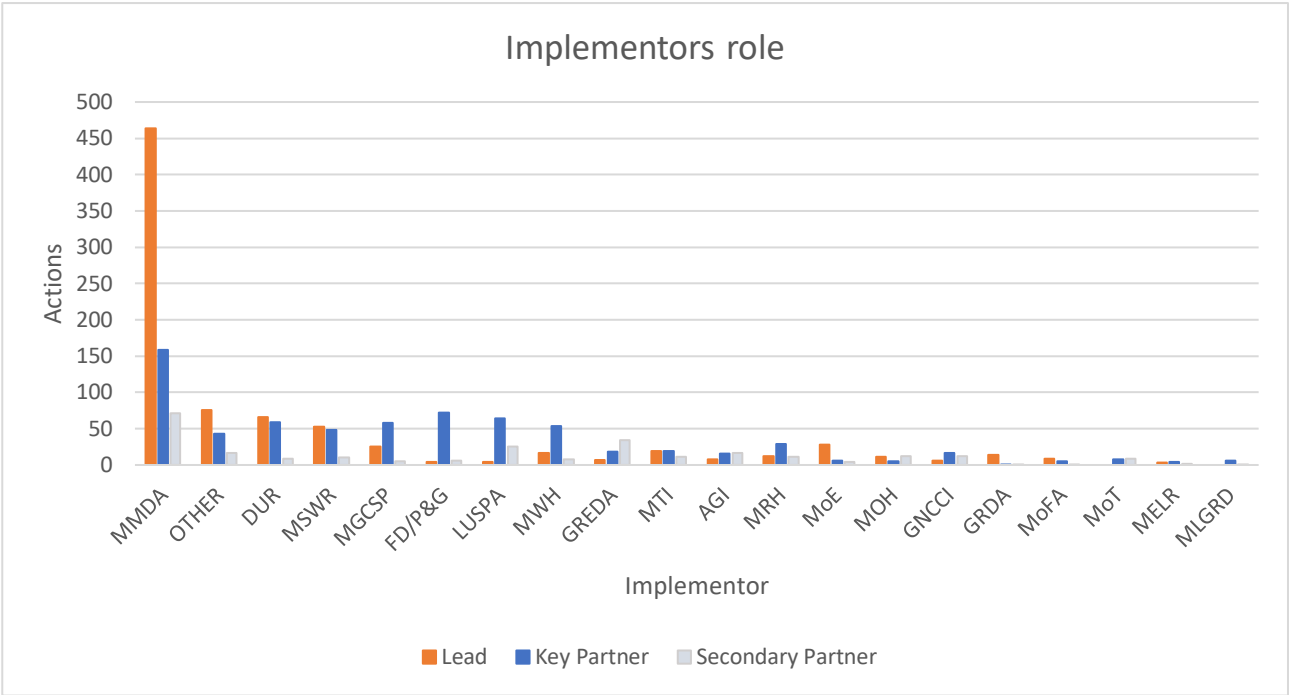
Figure 2 illustrates the number of actions for each goal, along with the corresponding distribution across timeframes and budget categories. The rightmost column represents the correlation between the timeframe and budget, where a correlation of "1" indicates a perfect positive correlation, "0" suggests no correlation. Goals 1, 9, 10 and 11 exhibit a strong positive correlation, while Goals 3, 8, 18 and 20 display a poor correlation. In the case of Goal 20, most actions fall in medium period, yet budgets are either low or high.

## Institutions and actions

The 834 actions have been assigned to one or more institutions for implementation. In cases where multiple institutions are involved, one of them is designated as lead, other as a key partner, and subsequent institutions become secondary partners. The institutions with the highest responsibilities are MMDA and DUR, leading on 464, 66 and 53 actions, respectively. MMDA is involved in a total of 694 actions, serving as either a lead, key partner, or secondary partner.

Figure 3 provides an overview of the institutions' roles in relation to the implementation of the various actions. MMDA takes lead on 56 percent of actions, acts as key partner on 23 percent of actions, and serves as a secondary partner on 27 percent of actions.

Figure 3: Role of institutions



Source: COWI

# Implementation Plan – list of goals, objectives and actions

See Annex A.

# Investment Plan

See Annex B.



GOAL - OBJECTIVE - ACTION	Implementors																					
	3 = Lead    2 = Key Partner    3 = Secondary Partner																					
	PERIOD	BUDGET	MMDA	OTHER	DUR	MSWR	MGCSP	FD/P&G	LUSPA	MWH	GRED	MTI	AGT	MRH	MoE	MOH	GNCCI	GRDA	MoFA	MoT	MELR	MLGRD
x GOAL x.x OBJECTIVE x.x.a ACTION																						
1 A region of diverse and integrated centres and corridors																						
1.1 Establish sub-regional identities and centers																						
No actions																						
1.2 Establish sub-regional identities and centers																						
1.2a Prioritise centres for local area planning to support quality growth and density.	S	L	3					2														
1.2b Ensure that zoning supports and encourages walkable, mixed-use infill development in and around centres.	S	L	3					2														
1.2c Develop a GAMA-wide map of street frontage conditions in all centres, review/update maximum setbacks, and adopt build-to-line62 standards to promote active streets.	S	L	3																			
1.2d Support the creation of new and upgrading of existing public spaces within and around centres	S	L	3					2														
1.2e Use the GAMA land-use plan to guide development patterns and decisions to determine consistency with zoning and land use decisions.	S	L	3		2																	
1.2.f Provide policy and incentives to support public-transit-oriented infill/redevelopment in centres and corridors such as expedited permitting, technical assistance, tax breaks.	M	H	3																			
1.2.g Increase infill/redevelopment that co-locates residential, employment and retail uses.	M	S	3																			
1.2.h Prioritize capital investments that facilitate infill/redevelopment in centres	S	L	3					2		1		1										
1.2i Increase and enhance multimodal access and connectivity to public spaces that promote community gathering within centres	M	H	3		2			2														
1.2.j Relax parking requirements or set parking maximums in centres and along high-frequency public transport corridors.	M	L	3																			
1.2k Prioritize upgrading of walkways, street lighting, furniture, and shade in centres	S	L	3		2			2														
1.2.l Prioritize sewer upgrading and expansion in high density centres.	S	H	3		2			2														
1.2m Ensure that infrastructure repair, maintenance, upgrade and expansion support growth and mixed-use development in centres	S	M	3		2			2														
1.2n Provide incentives for housing and job growth in and around centres and on high-frequency public transport corridors.	L	H	3					2														
1.2o Encourage higher-density commercial and residential development in centres supported by high frequency/capacity public transit	M	M	3		1			2														
1.3 Promote inclusive, mixed-income neighbourhoods																						
1.3a Promote a mix of housing types and buildings of different sizes, configurations, tenures and prices, and ownership structures.	L	H	3		2					1												
1.3b Establish a GAMA-wide GIS database of vacant and underused residential sites, prioritising centres	S	L	2	3				1														
1.3.c Promote market residential development sites that are appropriate for mixed-income development through, among other actions, periodic workshops for private/non-profit developers.	L	H	3			2				1												
1.3d Revise existing housing development programs/projects that include the building of single-household units to also include multiple units.	L	H	3			2				1												
1.3.e Revitalise housing estates developed in the 1960s and 1970s. Examples of communities with such estates include North Kaneshie, Awudome, and Teshie Nungua.	L	H	3			2				1												
1.3f Provide incentives to developers to integrate and deliver affordable housing as part of new development, such as financial assistance or streamlined permitting process	S	M								3												
1.3.g Promote house type diversity to expand choices that meet financial, and lifestyle needs and demands of existing and new residents.	L	H																				
1.3.h Allow plots to add small accessory dwelling units by right to promote infill, generate income, and provide family support.	M	H	3							2												
1.3.i Promote the development of ‘missing middle’ housing and tax missing middle housing at lower rates to promote a diverse range of affordable, quality infill housing.	L	M	3			2																
1.3j Update building codes and fee structures to treat structures of up to four units as residential constructions	S	L	3					2	1													
1.4 Promote infill or productive use of vacant and underused plots and reduce blight and stagnation																						

GOAL - OBJECTIVE - ACTION		Implementors																		
		3 = Lead 2 = Key Partner 3 = Secondary Partner																		
X GOAL	X.X OBJECTIVE	PERIOD	BUDGET	MMDA	DUR	MSWR	MGCS	FD/P&G	LUSPA	MWPH	GREDA	MTI	AGI	MRH	MoE	GNCCI	GRDA	MoFA	MoT	MLGRD
X.X.X ACTION																				
1.6 Strengthen neighbourhood commercial areas																				
1.6a	Align existing local plans, land use plans and zoning maps with the recommendations of the future land use planning map through the local area planning process.	S	L	3																
1.6b	Use the local area planning process to establish design guidelines or other infill design resources to guide infill development in centres and centre neighbourhoods.	S	L	3				2												
1.6c	Use the local area planning process to prepare zoning regulations, prioritizing centres to promote compatible infill development.	S	L	3				2												
1.6d	Ensure building forms promote more dense forms of infill in a manner that is compatible with existing development, considering transitions in height, density, and massing between residential and mixed-use zones.	M	L	3				2												
1.6e	As centres densify, retain existing green space and ensure that new green space is incorporated to provide common areas.	S	L	3				2												
1.6f	Aim for a high-quality built environment within centres through design standards and coordinated investments in public realm and placemaking.	S	L	3				2												
1.6g	Develop a set of architectural and urban design principles for development and ensure design principles are consistent with other guidelines.	S	L	3				2												
1.6h	Use the land use plan and local area planning process to streamline the application and enforcement of zoning.	S	L	3				2												
1.6i	Minimize displacement, through legal and other protections, as neighbourhoods experience new growth.	S	M	3				2												
1.6j	Protect and respect historic buildings and areas with historic character, but permit varying intensities, options, and compatibility	S	L	3				2												
1.6k	Preserve and improve historic structures and sites that are significant to the history and culture of GAMA. Discourage demolition of historically and culturally significant structures by developing a historic plan and review process.	M	M	3																
1.7 Strengthen neighbourhood commercial area																				
1.7.a	Focus residential infill efforts in centres and their neighbourhood commercial areas to achieve appropriate population densities.	L	L	3				2												
1.7.b	Focus code and environmental enforcement efforts in centres to improve the physical environments around commercial activities.	M	L	3				2												
1.7.c	Develop a strategy to create, attract and retain small retail and service businesses in centres.	L	L	3				1												2
1.7.d	Pilot tenant attraction efforts in selected centres to build critical mass of population.	M	L	3				2												
1.7.e	Establish a fund to improve neighbourhood commercial areas targeting buildings, infrastructure, and attracting tenants.	M	L	3												2				1
1.7.f	Support the redevelopment and intensification of underused commercial properties within centres.	S	L	3												2				1
1.7.g	Support and encourage the adaptive reuse of existing underused buildings in centres.	M	L	3				2												
1.7.h	Improve walkability and multimodal access in and around centres to promote local economies and connect neighbourhood residents and local businesses.	S	L	3				2												
1.7.i	Incentivize businesses to hire-from-within-the-neighbourhood and reserve space for local businesses in the larger developments.	M	L	2													3			1
1.7.j	Preserve and protect existing businesses in centres, particularly those that have contributed to neighbourhood history and identity67.	S	L	1													3			2
1.7.k	Use tactical urbanism interventions – fast, cheap and action oriented approaches – in centres to stimulate neighbourhood commercial activity.	M	L	3													2			1
1.7.l	Support local businesses and women-owned businesses by promoting buy-local campaigns.	S	L	1				3									2			
1.7.m	Consider use of tax increment finance (TIF) districts and business improvement districts (BIDs) to revitalize and strengthen commercial corridors.	M	M	1													3			2
1.7.n	Promote the diversity of housing types in commercial areas to expand choices that meet financial, and lifestyle needs and demands of existing and new residents.	S	L	1						3							2			
1.7.o	Fine environmental violations in commercial areas such as sidewalk encroachment, waste, illegal signs and illegal parking.	S	L	3													2			1
1.7.p	Enhance existing malls by adding residential uses, removing on grade parking.	S	L	1						2							3			
1.8 Increase access to quality fresh foods and wellness opportunities																				
1.8.a	Address food insecurity, focusing on neighbourhoods with low access to healthy foods.	S	H	1																3
1.8.b	Support, maintain, and attract a broad range of healthy food sources within centres, including full-service supermarkets, grocery stores, food markets, community gardens and farmers' markets	S	H	1													2			3
1.8.c	Assist and encourage convenience stores to carry fresh, healthy, and quality foods.	S	L														2			3
1.8.d	Identify suitable sites for community gardens in and around centres including in churches, schools, public parks and open spaces.	S	M	3				2												1
1.8.e	Create and sustain school gardens as an integrated component of a healthy foods' curriculum.	M	L	3				1												2
1.8.f	Connect schools, childcare facilities, and other institutions with local healthy food producers to support and sustain farm-to-table initiatives in centres.	M	M	2												1				3
1.8.g	Provide incentives for schools and healthcare facilities to purchase food from within region.	S	M	1													2			3
1.8.h	Support women — who grow the most nutritious and lower priced crops, largely for household consumption — to expand their operations and their largely small farms.	S	M	1				3												2
1.8.i	Support women — who are prominent crop processors, food vendors and distributors — to negotiate better prices from farmers.	S	M	1				3												2
1.8.j	Study GAMA's five major food markets to determine the type and cost of food as it flows from farmers, producers, markets, local shops to consumers, to reduce costs and improve food quality.	S	L	2																3
1.8.k	Partner with healthcare organizations to promote, support, and expand the availability of public health services and programs.	S	H	2																3
1.8.l	Partner with businesses, healthcare organizations, schools, and residents to promote local, preventative nutrition and health education programs.	S	M	1																3
1.8.m	Rehabilitate parks, greenways, and recreation amenities, especially in underserved areas of GAMA, to encourage physical activity.	S	H	2				3												1
1.8.n	Improve streetscapes with shade trees, awnings, public art, and pedestrian amenities to encourage people to be physically active.	S	M	2			1		3											

GOAL - OBJECTIVE - ACTION		Implementors																						
		3 = Lead 2 = Key Partner 3 = Secondary Partner																						
X GOAL	X.X OBJECTIVE	PERIOD	BUDGET	MMDA	OTHER	DUR	MSWR	MCSWP	FD/P&G	LUSPA	MWH	GREDA	MTI	AGI	MRH	MoE	MOH	GNCCI	GRDA	MoFA	MoT	MEIR	MLGRD	
X.X.X ACTION																								
2 Decent, Inclusive and Affordable Housing																								
2.1 Construct new/upgraded affordable units																								
2.1a	Complete existing dwelling structure and projects first, infilling existing areas, before developing longer term (>15 years) development areas.	M	H	2							3	2												
2.1b	Intervene in the land market to unlock and accelerate housing delivery including on public land, through forced purchase and other forms of land assembly	M	H	2							3	1												
2.1c	Increase the development of rental units.	L	H	2							3	1												
2.1d	Diversify and improve the construction industry through support to SME builders, MMDA-own development, improved construction skills and construction methods.	L	H	2		3						1												
2.1e	Diversify housing options through sites of different sizes, natures (greenfield/brownfield), locations (nodes and corridors), and ownership (public, private, institutional).	L	H	2								3												
2.1f	Develop both large sites to deliver hundreds of units at one time, and small sites in existing residential areas to take advantage of existing soft and hard infrastructure	L	H	2							3	1												
2.1g	Locate more housing, -including low-income housing-, in or near centres, on public transport corridors, and in/around places of large-scale employment.	L	H	3								1	2											
2.1h	Consider requiring major developers to provide affordable housing through the threshold approach	L	H	2								3												
2.1i	Use existing vehicles - the National Homeownership Fund in partnership with banks, the Rent-to-Own Scheme, and GCB Capital - to scale up affordable housing	L	L								3	2												
2.1j	Use subsidies to households/developers to increase affordable housing delivery beyond the level that would otherwise be provided	L	H	1								2	3											
2.1k	Prioritise development of brownfield sites, sites near existing or planned public transport, car parks and low-density retail parks, surplus utilities and public sector owned sites	L	H	3								1	2											
2.1l	Complete the USD 200m Saglemi affordable housing scheme at Prampram, a 5000-residential unit facility on a 300-acre site with 180 blocks of 1,500 flats completed	S	H	1								2	3											
2.1m	Secure funds and implement the UNOPS Housing Project to deliver 200,000 affordable houses in Prampram, Amrahia and Amasaman.	L	H	1								2	3											
2.2 Provide special housing for seniors, special health needs and others																								
2.2a	Integrate an aging perspective in the planning process and local plans	L	L	3							2													
2.2b	Provide a range of age-appropriate affordable and accessible housing options	L	H	3							2	2												
2.2c	Maximize connections among housing, transportation, health care, recreation, human services and community engagement, to facilitate health, participation, security and quality of life.	M	H	3							2						2							
2.2d	Support the economic well-being of older adults and their caregivers.	L	M	1				2															3	
2.2e	Support older adults remaining in the workforce longer, serving as employees, entrepreneurs, and mentors.	L	M	1				2															3	
2.2f	Ensure that every community/neighbourhood has reasonable facilities to accommodate the needs of the homeless on a short-term or emergency basis	M	M	3				2																
2.2g	Develop a joint approach to social care, housing and planning	M	L	1				3			2													
2.2h	Integrate older people's housing and health care.	L	L	1				3			1													
2.2i	Deliver housing for older people through infill sites.	L	H	1				3			2													
2.2j	Build an integrated retirement community	L	H	1				3			2													
2.2k	Consider independent living solutions in rural areas.	L	H	1				3			2													
2.2l	Create housing options along a continuum of size that are affordable, accessible, close to services and located in existing neighbourhoods including nursing homes and rehabilitation centres	L	H	1				3			2													
2.2m	Support infill that advances home sharing and accessory dwelling unit development to enable on-site caregivers, provide income for a homeowner, and mitigate isolation.	L	H	1				3			2													
2.2n	Eliminate discriminatory rules or practices that undermine the potential for new, more innovative housing arrangements	L	H	1				3			2													
2.3 Address Homelessness and Street Children																								
2.3a	Encourage coordination between the general planning/land use departments with community development and/or human service funding agencies and non-profits to address homelessness.	M	H	3				2																
2.3b	Ensure that local plans address the need for a wide array of emergency, transitional, and permanent housing to serve the homeless.	M	L	3				2																
2.3c	Ensure that every community/neighbourhood has reasonable facilities to accommodate the needs of the homeless on a short-term or emergency basis.	L	H	3				2																
3 Integrate Land Use and Transportation Planning																								
3.1 Increase the number of residents and jobs in centres and along corridors in a pattern that prioritizes multi-modal transportation options																								
3.1a	Rezone GAMA in accordance with the future land use plan and with a Transit-Oriented Development (TOD) approach. Encourage all land use, transportation and infrastructure planning agencies coordinate and focus on infrastructure improvements and rezoning at centres to make them TOD ready	M	H	3		1				2														
3.1b	Develop housing accessible to all income levels, especially affordable, in and near centres and along major corridors	L	H	2						3	2													
3.1c	Support the retention, creation, and attraction of businesses in and near centres and major corridors	S	M									2						3						
3.1d	Develop a network of key corridors that are integrated with our green network and features good urban design and multi-modal access that creates beautiful and welcoming corridors throughout GAMA	M	L	3		2									2									
3.2 Promote TOD in centres, facilitated by a High-Capacity Bus system and network.																								
3.2a	Develop and design selected GAMA centres as TOD centres.	M	M	3						2														
3.2b	Promote TOD through a High-Capacity Bus (HCB) system and network that connects GAMA centres and will become a proper BRT over time.	M	H	3		3				2														
3.2c	Improve the conditions of existing bus terminals and develop new ones in key centres.	S	M	2		3																		
3.2d	Apply the TOD concepts to intersections between the trans African highway alignment and the existing arterials	M	H			3				2					2									
4 Create High Performing Transport Infrastructure Network and Systems																								
4.1 Promote Transportation Demand Management																								
4.1a	Advertise and promote TDM benefits towards GAMA officials and residents in terms of decongestion, decrease of air pollution and generation of additional municipal revenues	M	L	2		3				1														
4.1b	Encourage GAMA officials to maintain a database of employers implementing TDM measures and provide them with tax abatements.	M	L	2		3				1														
4.1c	GAMA officials such as the Greater Accra Multi-Spatial Planning Committee or the Greater Accra Regional Spatial Planning Committee should coordinate with the Ghana Revenue Authority and other relevant stakeholders to maintain a database of employers implementing TDM measures and provide them with tax abatements.	S	M	1		2		3																
4.1d	Encourage GAMA officials to explore tax breaks for individuals who participate in a TDM program	M	L	2		3				1														
4.1e	Leverage technology to share travel time by all modes of transportation with users.	M	L	2		3				1														
4.1f	Consider introducing Low Emission Zones within Accra Centre, which is the most congested urban area in GAMA	S	L	3		2																		
4.1g	Introduce carpooling, rideshare, and ride match services at strategic transport hubs throughout GAMA	S	L	2		3				1					2									
4.1h	Develop and integrate an intelligent transport system and create an integrated traffic management control centre to better manage traffic.	L	L	1		3									2									
4.1i	Complete the implementation of the Accra Intelligent Traffic Control Centre at DUR head office to improve traffic efficiency	S	M			3																		

GOAL - OBJECTIVE - ACTION		Implementors																						
		3 = Lead 2 = Key Partner 3 = Secondary Partner																						
X GOAL	X.X OBJECTIVE	X.X.X ACTION	PERIOD	BUDGET	MMDA	OTHER	DUR	MSWR	MGCSP	FD/P&G	LUSPA	MWHA	GREDA	MTI	AGI	MRH	MOE	MOH	GNCCI	GRDA	MoFA	MoT	MELR	MLGRD
4.2 Promote parking strategies that manage demand and supply efficiently																								
4.2a Adopt lower parking minimums or remove parking minimums completely																								
4.2b Discourage new surface parking lots, especially along pedestrian-oriented and public-transport-accessible corridors -in order not to encourage car traffic																								
4.2c Encourage commercial property owners to share their excess parking spaces through an awareness program pointing at land use usage benefits																								
4.2d Develop standards to improve parking lot function and design, according to universal design and accessibility standards																								
4.2e Introduce a zonal parking system to regulate parking space use and limit congestion. Regularly re-assess and adjust parking supply and demand																								
4.2f Introduce park-and-ride lots at urban peripheries and at strategic locations around transport hubs where it is easy for people to shift modes																								
4.2g Use on-street parking as a design component to physically separate motorized traffic from non-motorized traffic																								
4.2h Introduce and optimize parking fees, ensuring that it is also integrated with the zonal parking system																								
4.2i Provide appropriate measures for enforcing parking programs																								
4.2j Educate the public to understand the value of parking and curb space and the need to manage it better																								
4.2k Develop strategic parking assets where feasible. Support parking management strategies in high density areas to optimize the use of existing resources and reduce the need for new public parking facilities																								
4.2l Provide parking wayfinding signage and automated parking guidance systems for car/truck drivers to better and quicker identify available spaces																								
4.3 Promote safe movement of people and vehicles across all travel modes																								
4.3a Improve road safety data collection and monitoring with focus on vehicle crash data collection and analysis, as well as monitoring and evaluation of road safety activities																								
4.3b Adopt and fund a comprehensive road safety programme and action plan to eliminate traffic fatalities and increase safe, healthy, and equitable mobility for all																								
4.3c Leverage the redevelopment of large parcels within centres to increase connectivity through the creation of walkable and cyclable new streets and/or connective routes																								
4.3d Reduce vehicle speeds and promote NMT-friendly movements when redesigning streets in centres where pedestrians and bicycles are present – or should be more present																								
4.3e Prioritize the re-design of roads/streets which count the highest number of injured people through more on-street parking, sidewalk and buffers, continuous and visible crosswalks, protected pedestrian crossings, and increase traffic control at intersections for all modes																								
4.3f Promote awareness of safe behaviour in traffic for all road users. Promote awareness of crash problems and social/economic implications.																								
4.3g Enhance driver training and improve the licensing procedures.																								
4.3h Require vehicles to pass safety inspection for registration																								
4.3i Consider the development of a Safe-Routes-to-Schools Program to all schools and conduct formal audits																								
4.3j Develop engineering and design standards to upgrade freight routes in a way that is safe for all modes, and particularly where community streets intersect. Minimize the impact of freight corridors on connective networks.																								
4.3k Identify and secure right-of-way for future expansion and upgrade of freight corridors																								
4.3l Work with rail agencies to ensure crossing infrastructure is safe for all users and upgraded according to best design practices																								
4.4 Improve key corridors that connect people to existing and new centres through frequent public transport service and shared mobility.																								
4.4a Establish effective, convenient, and frequent public transport and shared transport services on key corridors and in sub-regions. Identify opportunities for increasing the frequency of public transport services over time																								
4.4b Incentivize affordable housing and job growth in and around key corridors and sub-regions																								
4.4c Promote multimodal and shared transport by encouraging employers to provide public transport passes, cycle facilities, shared-used mobility, and opportunities for car and vanpools																								
4.4d Expand and enhance public transport, carpool, and vanpool programs through branding, outreach, improved infrastructure, and financial incentives. Establish targets and metrics to track progress of bus ridership, vanpool, and carpool use																								
4.4e Promote mixed-use infill and redevelopment on key corridors and within sub-regions that should co-locate residential, employment, leisure, retail opportunities and other facilities (health, administrative, etc) to reduce the need for long-distance travel and maximize public transport potential as well as NMT use.																								
4.4f Enhance the spacing, accessibility, usability, and comfort of bus stops along the key corridors – trading shorter walking distances for faster service and better facilities.																								
4.4g Fund and support maintenance and public transport improvements on key corridors that connect residential areas to employment centres and industrial zones																								
4.4h Increase, on key corridors, NMT facilities such as bike racks, storage, and shared use mobility stations, especially to support feeder/first/last mile trips																								
4.4i Explore the use of demand response areas and park-and-rides facilities in the vicinity of PT hubs to promote GAMA areas that connect with PT options																								
4.5 Promote and support existing road capacity to service new development and density.																								
4.5a Align road infrastructure maintenance and upgrade with future urban and economic growth priorities, as well as desired land use development																								
4.5b Direct resources for the repair, maintenance, and upgrade of road infrastructure according to DUR pipeline of road rehabilitation projects, while prioritizing the roads where new development and redevelopment are anticipated within centres																								
4.5c Prioritize the road infrastructure maintenance and upgrade within GAMAs built-up area over the extension of new infrastructure																								
4.5d Complete the rehabilitation of 7.5 km long Teshie Link Road (placing of asphaltic wearing course, installation of traffic lights, maintenance of grassing in median, etc), the upgrade 3.15 km Spintex Road One, Phase I and the road project-La Beach to improve access to and travel options within the Eastern Part of GAMA																								
4.5e Ensure adequate annual funding for infrastructure maintenance																								
4.5f Ensure repair, maintenance, upgrade, and expansion of infrastructure support to mixed-use development areas in centres. Allow flexibility in parking requirements to support mixed-use development in centres																								
4.5g Repave roads that are in poor and fair state while maintaining the good roads in a good state																								
4.6 Improve existing road infrastructure.																								
4.6a Introduce more dual major arterial roads that serve the proposed centres, when justified																								
4.6b Dual the national expressway system that connects GAMA regional capitals of Kumasi, Takoradi, Ho, Afao, and Koforidua																								
4.6c Improve interchanges infrastructure at intersections between road arterials.																								
4.6d Ensure that all roads within GAMA are paved																								
4.6e If guided by an e-mobility strategy, create and install charger networks for electric cars along key corridors to reduce emissions																								

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4.7 Support success of existing operational 'commuter rail' network and reactivate the segments that are not operating																										
4.7a Rehabilitate and upgrade the Accra-Tema and the Accra-Nsawam lines to double lines																										
4.7b Put the Accra-Tema line back in operation, with an increased number of stations/halts served																										
4.7c Expand and extend the operating hours of the Accra-Nsawam commuter rail line and increase the number of stations/halts in operation																										
4.7d Upgrade the Accra-Tema Port-Tema line to serve as an intermodal transport of goods and people from the port to the outskirts of GAMA and remove encroachments at Batsona and Agbogloshie																										
4.7e Revive, in the short term, six rail stations on the Accra-Asaprochona line at Circle, Achimota, Dzorwulo, Shangrila, Adegonor and Queensland (Nungua).																										
4.7f Link the commuter rail network with the planned alignment of the Trans-Ecwas Rail to strengthen the connectivity across GAMA and with its neighbouring regions																										
4.7g Link the commuter rail network to the proposed Tema-Akosombo standard rail line to increase ridership.																										
4.7h Identify opportunities to reduce the number of at-grade rail crossings.																										
4.8 Remove operational barriers to the use of mass-transit transport modes.																										
4.8a Make public transport more affordable, especially for vulnerable groups																										
4.8b Provide government subsidies, possibly targeting specific groups such as women, people with disabilities, students																										
4.8c Enhance safety conditions and security against sexual assault/harassment in trains and buses, especially during off-peak hours and at night																										
4.8d Provide extra security personnel at busy stations/stops and in vehicles																										
4.8e Ensure PWD accessibility to the trains and buses, including the stations/stops' environment and the access to the vehicle itself																										
4.8f Ensure bus and train operators provide hygiene protocols against spread of diseases																										
4.8g Make buses comfortable for everyone through removal of potholes, better vehicle interior design with better standing and seating space/options.																										
4.8h Expand the options to pay for tickets including electronic ticketing, more places to buy and top-up the cards, online and mobile phone payments																										
4.8i Create one integrated payment and ticketing system across all mass-transit options.																										
4.8j Prioritize opportunities to use phone apps to improve public transport information and operations																										
4.9 Redesign and improve freight transport network and management system																										
4.9a Ensure availability of quality freight data at the neighbourhood and GAMA levels to inform multimodal transportation planning.																										
4.9b Ensure ongoing collection, maintenance, and analysis of freight data and incorporate analyses into plans to optimize freight transport management.																										
4.9c Develop MMDA's capacity to enforce existing freight management bylaws through a training programme																										
4.9d Encourage people to 'buy local' to reduce freight trips and distances, support local economies, strengthen community resilience to external disruption																										
4.9e Consolidate pick-up and deliveries of different shippers such as drop-off/pick-up boxes for online purchases to reduce home deliveries																										
4.9f Schedule deliveries off-peak hours and days, reduce loading/unloading times, ship more product less often, optimise packaging to max out truck space																										
4.9g Plan and provide major logistics/freight centres at GAMA's edge to relieve congestion in the core.																										
4.9h Locate freight intensive developments near public transport hubs to improve job access.																										
4.9i Provide loading/unloading zones/stations/docks in new development areas and at required intervals on all major public transport routes.																										
4.9j Designate parking for freight onloading and offloading in strategic locations																										
4.9k Provide time-restricted loading in zones where off-street loading is not possible, and in specific urban areas, monitored and enforced.																										
4.9l Provide places for freight vehicles to park without disrupting traffic flows.																										
4.9m Identify and protect key freight transportation corridors that link strategic freight gateways, generators, distribution centres, manufacturing industries and markets																										
4.9n Increase safety for the movement of hazardous materials and over-size/weight loads in population centres																										
4.9o Prohibit trucks in historic districts, school zones, congested areas and at special events and venues																										
4.9p Designate freight routes for hazardous materials to avoid environmentally sensitive areas, centres, parks and drinking water sources.																										
4.9q Promote redundancy in the freight network to ensure efficient movement of freight and goods																										
4.9r Develop engineering and design standards to establish designs for freight routes that meet anticipated freight needs																										
4.9s Increase the rail and maritime movement for freight transport.																										
4.9t Create dedicated, reliable, long-term freight funding programs that maintain and enhance existing multimodal and intermodal freight assets.																										
4.9u Promote a green freight vehicle fleet, with quieter, cleaner, fuel-efficient vehicles.																										
4.9v Develop a lifeline freight transport network to facilitate emergency services response and to support rapid economic recovery after a disaster																										
4.10 Redevelop existing international airport and access routes																										
4.10a Prepare for the possible development of a new international airport by reserving sufficient land for all infrastructure and public uses.																										
4.10b Regulate land developments within the vicinity of airports to stimulate investments in airport related service industries.																										
4.10c Enhance Interconnectivity between KIA and proposed airport.																										
4.10d Address the deficiencies at KIA airport terminal and runway.																										
4.10e Redevelop Burma Camp: Approach the Ghana Armed forces for whether and how it may redevelop Burma Camp to realise its highest and best use.																										
4.10f Consider a tram around KIA to link with High-Capacity Bus (HCB) systems and then continue to LRT when traffic justifies this.																										
4.11 Improve and integrate maritime transport into the mobility network																										
4.11a Study the feasibility of a ferry service between Accra and Tema to handle commuters and/or freight and limit traffic congestion on land																										
4.11b Study the impact of the BIA on the Tema Port, including possible reduction in expansion pressures																										
4.11c Support construction of a direct railway link from Tema Port to the Boankra Inland Port (BIP)																										
4.11d Support the redevelopment of Tema Shipyard and Drydock Facility into world class facility to serve the growing marine and oil industries																										
4.11e Support the development of marine fishing ports and landing sites in several coastal fishing communities																										

GOAL - OBJECTIVE - ACTION		Implementors																				
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X GOAL	X-X OBJECTIVE	PERIOD	BUDGET	MMDA	OTHER	DUR	MSWR	MCS	FD/P&G	LUSPA	MWH	GREDA	MTI	AGI	MRH	MOE	MOH	GNCCI	GRDA	MoFA	MoT	MLGRD
X-X-X ACTION																						
4.12 Develop an accessible, multimodal and integrated transportation network with PT as a core component																						
4.12a Eliminate gaps in the transportation network to increase mobility options and promote accessibility to nearby land uses.		S	L													3						
4.12b Create integrated, accessible, and demand-responsive PT and NMT networks throughout GAMA.		M	H	2	3					1												
4.12c Ensure that transport/mobility investments contribute to an integrated transportation network that connects a variety of uses for all users, regardless of age, ability, gender or transport mode.		L	H	3	2																	
4.12d Promote multimodality throughout GAMA by developing transport hubs that combine multiple modes (PT, NMT, shared cars).		L	H	3	2																	
4.12e Identify and communicate to residents the places where multimodal connections exist.		L	L	3	2																	
4.12f Implement a unified fare structure and wayfinding system for both rail and bus use.		L	L	3	2																1	
4.12g Establish goals and metrics to track progress of use and mode share by public transport, walking, cycling, and shared mobility		L	M	1	3											2						
4.13 Redevelop existing international airport and access routes																						
4.13a Create a unified and accessible BRT and HCB network, integrated with the road, rail and NMT networks		S	H	3	2																	1
4.13b Create a grid network of BRT and HCB bus routes across GAMA, serving centres and urban edges		L	H	3	2																	
4.13c Implement a unified fare structure and wayfinding system for rail and bus use		S	L	3	2																	
4.13d Incentivize people to use BRT or HCB instead of cars.		S	M	2	3																	
4.13e Locate the BRT network on the GARSDF proposed arterial bus network on the following five major arterials: Winneba Road, Nsawam Road, Liberation Road, Motor Way and Labadi Road		M	H	3	2																	
4.13f Introduce segregated lanes for BRT operations on the full proposed BRT network. Conduct a feasibility study to identify roads sections where segregated lanes can be started on the short-term, considering removal of car lanes		S	H		3												2					
4.13.g Serve the remaining areas of GAMA and its centres with a HCB network and system based on an optimized signalling system on the designated HCB routes that provides a high level of priority to HCB as well as dedicated bus lanes at intersections on those same routes		L	H		3												2					
4.14 Complete the existing road system.																						
4.14a Create a metropolitan-scale grid of roads serving GAMA centres with more circular and radial routes to decongest the city centre. Focus should especially be on the provision on additional arterial (or east-west) ring roads.		M	L	2	3																	
4.14b Complete the Trans-African Highway (TAH) project through GAMA.		M	H		2																	
4.14c Consider TODs where TAH intersects with existing and planned arterials.		M	M		2																	
4.14d Install new interchanges on major routes to reduce congestion. Complete the design and build project of Obetsebi Lamptey Interchange and other Ancillary Works, Ph II to improve flow at the intersection of the Graphic Road/Dr Busia Highway and the Ring Road West.		M	H		3																	
4.14e Build flyover over the Tema Motorway from Flowerpot Roundabout to reduce congestion at the flowerpot intersection and improve access between the northern and southern parts of the motorway.		M	H		3																	
4.14f Eliminate, where feasible, dead-end streets, create street links, and pedestrian shortcuts through large blocks.		M	H	2	3																	
4.15 Promote roadway and streetscape design based on surrounding context																						
4.15a Develop a street plan with a street typology. Apply them to the future land use plan and to the creation of new streets/pathways, with special focus/priority given to the enforcement of those design standards at the level of GAMA centres and along key corridors.		M	H	2	3																	
4.15b Build new streets or pathways to increase connectivity, walkability and cyclability within large sites		M	H	1	3																	
4.15c Ensure street design standards integrate all transport and mobility modes, including public transport, pedestrian, cycling and shared mobility facilities. Within centres, balance the needs of pedestrians, cyclists, public transport, and cars to support the surrounding land use		M	H	2	3																	
4.15d Promote human-scaled streets and streetscapes that accommodate pedestrians, bicycles, public transport, and vehicles in higher-density areas. Ensure better accessibility for NMT modes, including people with reduced mobility, by applying universal design principles to road/streets that should be well connected to each other		L	H	3	2																	
4.15e Introduce micro-mobility infrastructure in GAMA starting with centres, including infrastructure and equipment for bicycle share systems and scooters		M	L	1	3																	
4.15f Provide dedicated road crossings, green elements and plentiful seating to increase convenience and comfort of streets and public spaces		M	M	2	3																	
4.15g Ensure street and streetscape design promotes context sensitivity and allows for incremental implementation and deviation as necessary.		L	M	2	3																	
4.15h Consider tactical urbanism pilot projects in key centres that can become more permanent improvements over time		L	L		3																	
4.15i Improve coordination in planning, design, and implementation of infrastructure and utility improvement		L	L	3																		
4.16 Expand the existing Pedestrian and Cycle (NMT) infrastructure and network																						
4.16a Assess condition and use of existing walkways/ cycleways. Require each MMDA to survey and create a geo-database of walkability and cyclability conditions on GAMA roads. Require each MMDA to develop a plan to improve walkability and cyclability conditions on GAMA roads according to universal design and accessibility standards.		L	M	3	1																	
4.16b Develop guidelines, standards and specifications for NMT planning and route design.		L	M	2	3																	
4.16c Expand existing NMT network to create and promote GAMA-wide pedestrian and cycle routes that adequately serve and connect GAMA centres with each other. The network should follow segments of the GREEN•GAMA•GRID (GGG) described in the Report section 3.5 “Environment and Climate Change” to become particularly attractive for cyclists to use.		L	H	3	2																	
4.16d Implement traffic calming measures and enforce vehicle speed limits throughout GAMA to slow down traffic and make the road network more bicycle and pedestrian-friendly.		S	M	1	3																	
4.16e Invest in NMT infrastructure for first/last mile trips within centres and for short distances to/from centres, thereby linking people to various opportunities		M	M	2	3																	
4.16f Reduce distances between blocks and increase the number of crossings to enhance walkability and pedestrian safety.		L	M	2	3																	
4.16g Rationalize street vendors’ facilities so that they do not obstruct sidewalks/cycling lanes and other streetscape improvements.		S	L	3																		
4.16h Repair, upgrade or provide new walkways along strategic roads with high pedestrian demand, according to universal design and accessibility standards incorporated in GAMA’s walkability and cyclability improvement plan(s).		M	H	2	3																	
4.16i As part of their development projects, require developers to provide well-planned walkways according to universal standards incorporated in GAMA’s walkability and cyclability improvement plan(s).		M	M	3																		
4.16j Short-term cycling network planning: start the implementation of the cycling network at the “micro”-scale of neighbourhoods which have the highest bicycle ownership, using segments of the GREEN•GAMA•GRID.		M	M	3	2																	
4.16k Middle/long term cycling network planning: continue the implementation of the cycling network in a way that connects GAMA centres and areas with high bicycle ownership, also corresponding to the proposed GREEN•GAMA•GRID.		L	M	3	2																	
4.16l Prioritize dedicated cycle lanes on the cycling network, separate from vehicle lanes.		L	M	3	2																	
4.16m Incentivise employers to provide end-of-trip NMT facilities including secure bike parking, shower and locker facilities.		L	M	3	2																	
4.16n Provide cycle parking infrastructure -such as racks- throughout the NMT network, with special focus on areas that are in the vicinity of public transport hubs to promote multimodality and use of environmentally friendly transport.		L	M	3	2																	
4.16o Fine vehicle encroachment on cycle and pedestrian spaces.		L	L	3																		
4.16p Reduce driveways and car access curb cuts across walkways.		S	L	3	2																	
4.16q Use bollards and other barriers to car encroachment on walkways.		S	M	3	2																	



K GOAL K.X OBJECTIVE K.X.A ACTION	GOAL - OBJECTIVE - ACTION		Implementors																			
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5 Strengthen GAMA's manufacturing sector as an engine of economic growth.																						
5.1 Support and strengthen existing industrial zones.																						
5.1a Strengthen the physical and virtual connectivity between the industrial zones.			L	M	2								3									
5.1b Provide/improve public transport between worker-dense neighbourhoods and industrial zones, enabling workers to go easily to and from work.			L	L	3									2								
5.1c Prioritise and target investment in increasing and ensuring stable power generation in industrial zones.			S	M	3							2										
5.1d Plan to locate new housing developments (and associated infrastructure and services) near or accessible to industrial land and well-connected to trunk transport networks to reduce travel times.			L	H	2		3				2		1		2							
5.1e Promote links between larger manufacturers and MSMEs via a matching service that identifies where MSMEs are producing inputs needed by large manufacturers and provide support to help them meet minimum standards and requirements.			L	H		3							1	2								
5.2 Fill existing and increase the number of industrial zones																						
5.2a Assess the need and feasibility of allocating industrial land in local plans for developing new industrial areas.			M	L	2	3							1	2								
5.2b Ensure that new industrial areas are connected to and well served by water, sanitation, solid waste and electric power infrastructure.			M	M	2	3							1	2								
5.2c Utilize the existing EPZ zone in Tema, as there are still spots open for companies to reside.			S	L	2								3	2								
5.2d Coordinate GAMA's industrial promotion efforts with the national government to ensure the use of industrial development programs such as SEZ and EPZ.			S	L	2								3	2								
5.2e Develop new industrial zones in line with ESG standards, which can render the areas more competitive and attractive to investors.			M	H	2								3	2								
5.2f Think big — create large zones that allow multiple large-scale manufacturing to increase the potential agglomeration effect.			M	H									3	2								
5.2g Increase awareness about the free zone initiative to foreign investors			S	L	1								2	3								
5.3 Increase workforce capacity by upgrading technical skills			S	L	1								3									1
5.3a Provide incentives for businesses to create formal employment through a variety of development programmes.			M	M	2								3	1								
5.3b Provide competency-based training and apprenticeships.			S	L	3								3	2								
5.3c Locate One Stop Shops in industrial zones that can provide support for investors to apply for permits and visas and pay taxes, customs, and utility bills.			L	M	3								3	2								
5.3d Promote linkages between higher education institutions and private sector companies to design courses and provide training to workers targeted to the needs of businesses.			M	L	3								3	2								
5.3e Locate "skills hubs" within industrial parks that will provide training to workers in collaboration with investors			M	L	3								3	2								
6 Develop GAMA as a trade hub for West Africa																						
6.1 Enhance GAMA's connectivity to benefit the Economy																						
6.1a Make large-scale investments to improve public transport, including railway and bus rapid transit infrastructure.			M	L														3		2		
6.1b Enhance the connectivity to Airport City to the benefit of GAMA's and the entire country's economy.			L	H	3	1	2															
6.1c Continue to develop Tema Port and improve its road and rail link to create a strong multimodal freight network.			M	H	3	1														2		
6.1d Strengthen rail, road and maritime links when investing in new infrastructure or industrial projects in GAMA and neighbouring regions. This will enhance connectivity and benefit regional economic development.			L	H		2									1			3				
6.1e Improve and develop the road and rail network for transporting goods through GAMA.			M	H		2																
6.2 Integrate GAMA into the Global Value Chain																						
6.2a Launch export promotion initiatives.			S	M	2									3								
6.2b Strengthen the GIPC to help drive FDI's into GAMA's manufacturing scene.			S	L	2									3								
6.2c Strengthen Ghana Export Promotion financially, enabling them to launch new initiatives.			S	L	2									3								
6.2d Provide technical assistance programs for the manufacturing sector as well as for SMEs to help improve productivity and lighten the export barriers.			S	M	2									3								
6.2e Improve border infrastructure.			S	M	2									3								
6.2f Reduce the cost of administrative procedures.			S	L	2									3								
6.2g Establish international partnerships — setting up formal transfer mechanisms — to bring an effective exchange of know-how			S	M	2									3								
7 Equitable opportunities																						
7.1 Support, regularise and integrate the informal economy																						
7.1a Provide more job opportunities in areas where informal sector workers live			S	L	2	3																
7.1b As in waste-collection — based on AMA, where informal service providers cover 90 percent of area, collect 90 percent of waste, and recycle 80 percent, saving AMA over \$5 million in annual operating costs			S	M	2	3																
7.1c Develop a GAMA trading plan for informal and formal trading to define separate areas, prescribe management, and offer guidance, support and training			M	L	3									2								
7.1d Consider enacting a law like Cape Town's 2009 Informal Trading By-Law, an illustration of an open declaration about the positive contribution of informal trading			M	L	1									3	2							
7.1e Recognise that informal trading helps to alleviate poverty, generate income, and develop entrepreneurs.			S	L	3									2	1							
7.1f Support the growth of businesses in the informal trading sector.			S	L	3									2	1							
7.1g Facilitate a balanced and integrated relationship between informal and formal trading sectors to promote social and economic development			S	L	3									2	1							
7.1h Collaborate with informal groups to build an evidence base on informal workers' demographics, needs, capacities and vulnerabilities.			M	L	3									2	1							
7.1i Integrate informal service economies with public service systems.			M	L	3									2	1							
7.1j Provide training for informal workers in advocacy and negotiation to support informal workers in organising, strengthening their voice.			S	L	1									3	2							
7.1k Work with informal worker groups to improve their operations (such as protective equipment for waste pickers/recyclers, sorting centres)			M	L	2	3																
7.1l Encourage organised informal-worker cooperatives and leaders to take part in decision-making			M	L	2	3																
7.1m Support informal workers/associations to bid for government contracts			M	L	2	3																
7.2 Support growth and expansion of business owned by locals, women and youth																						
7.2a Prioritize growth of small- and medium-sized companies in a coordinated strategy for equitable economic development.			S	L	3									2	1							
7.2b Assess the needs of small- and medium-sized businesses, focused on identifying specific barriers to growth for women businesses such as permitting process, physical space needs, access to capital.			S	L	3									2	1							
7.2c Implement one-stop business permitting centres in low-income neighbourhoods, where entrepreneurs can obtain permits and licenses needed to open a business.			M	L	2	3								2	1							
7.2d Support programs that provide business training, firm-to-firm mentoring, and other services that help low-income residents start and grow businesses.			M	L	3									2	1				1			
7.2e Encourage institutions such as hospitals, universities, and school districts to buy more goods and services locally.			S	L	3									2	1				1			
7.2f Locate business support services in neighbourhood centres, especially in low- and moderate-income communities.			M	L										2	1				1			
7.2g Expand the availability of goods and services in neighbourhoods by supporting small, locally owned businesses, especially women-owned businesses.			M	L										2	1				1			
7.2h Direct the Governments' YouStart policy/programme to support young entrepreneurs to launch and operate their own businesses through better access to capital, training, technical skills, and mentoring			S	L										2	1				1			
7.3 Plan for workforce diversity and development																						
7.3a Collaborate with the educational sector to train and support a skilled workforce through identifying and bridging skills gaps in the workforce, developing employer driven partnerships, developing and expanding career pathways, and using job matching services			M	M	1											3						2
7.3b Create direct and available pathways to connect workers to long-term employment opportunities with identified potential for prosperity - with particular emphasis on workers living in poverty			S	L										2	1		1		1			

GOAL - OBJECTIVE - ACTION		Implementors																						
		3 = Lead 2 = Key Partner 3 = Secondary Partner																						
X GOAL	X.X OBJECTIVE	PERIOD	BUDGET	MMDA	OTHER	DUR	MSWR	MIGSP	FD/P&G	LUSPA	MWH	GREDA	MTI	AGI	MRH	MoE	MOH	GNCCI	GRDA	MoFA	MoT	MEIR	MLGRD	
X.X.a ACTION																								
7.4 Support economic competitiveness by improving quality of life in neighbourhoods																								
7.4a	Follow the GAMA centres strategy as a key principle for the equitable economic development strategy.	S	L	3					2															
7.4b	Focus growth, development, and investment in and around the major employment centres and educational institutions.	M	L	3					2															
7.4c	Align and prioritize capital improvement investments that facilitate infill growth and reinvestment in and around centres.	M	L	3					2									1						
7.4d	Target financial incentives to specifically support growth in and around accelerate and nurture centres.	M	H	3					2										1					
7.4e	Provide incentives for targeted centres that may include expedited plan review and permitting, regulatory assistance, and prioritized code and environmental enforcement.	M	M	3					2									1						
7.4f	Develop a GAMA-wide GIS database of brownfield and greenfield properties, plots, and land.	S	L	3					2															
7.4g	Encourage property owners, employers, and developers in centres to provide better pedestrian and cycle infrastructure when planning for expansion, renovation and redevelopment.	M	M	3					2															
7.4h	Support façade improvements in centres, targeting small retail and restaurant businesses.	M	M	3					2															
7.4i	Support brownfield restoration through incentives, prioritizing sites to support the centre strategy.	L	H	3					2															
7.4j	Promote the use of vacant land for urban agriculture, tree farming, habitat restoration, or other uses that would create jobs, improve neighbourhood quality-of-life, and become 'greener'.	M	M	3					2															
7.4k	Promote and support arts and cultural groups and activities that help to shape GAMA's identity, generate entrepreneurship and employment in the creative industries, and reinforce GAMA's appeal as a destination for visitors	S	L	3					2															
7.4l	Protect residential areas from nearby industrial land uses through appropriate buffers to reduce noise, light and traffic	S	L	3					2															
7.5 Expand the existing Pedestrian and Cycle (NMT) infrastructure and network																								
7.5a	Prioritize strategies that address the disparities in education, employment, income, and wealth that exist among diverse neighbourhoods.	S	L														3						1	
7.5b	Increase investment in early childhood education and basic adult education, especially for underserved populations.	S	M														3							
7.5c	Improve coordination among all schools, colleges and universities, and private firms to build comprehensive career pathways that connect people directly to available and anticipated jobs	S	L														2						3	
7.5d	Increase resources for workforce development, education, and employment.	S	M														3						2	
7.5e	Support job seekers in finding and retaining employment with, for example, job training programs, childcare, and transportation.	S	L	3													3						2	
7.5f	Implement transportation demand management (TDM) measures in key employment districts, such as the creation of transportation management associations and employer-assisted public transport passes or subsidies to improve employees/jobseekers' mobility conditions	S	H	1	3																		2	
7.6 Maximize local job creation and household earnings through job retention, business attraction and business expansion																								
7.6a	Focus efforts to grow and attract business in the high performing financing and insurance sector, and in priority target locations that are best suited to GAMA's, MMDA and neighbourhood resources and workforce strengths.	S	L	1											3			2						
7.6b	Target business attraction efforts to firms and industries that help grow GAMA's economy, pay higher wages, and/or create jobs for the local unemployed.	M	M											1	3			2						
7.6c	Develop a prioritised list of potential sites and locations for business attraction, expansion, and retention.	S	L											1	3			2						
7.6d	Provide business incentives to firms that locate in centres or other designated employment centres.	L	L											1	3			2						
7.6e	Expand business acceleration and extension services for existing, small and midsize businesses.	S	M	2										1	3			2						
7.6f	Host networking events to connect businesses with investors, community development financial institutions, and other lenders that can provide small business loans.	S	L											1	2			1						
7.6g	Develop new marketing and communications materials to ensure that small and mid-sized local business owners are aware of technical assistance and business support programs offered by funding sources.	S	L	3										1	2									
7.6h	Streamline the permitting and licensing processes for existing small- and mid-sized businesses that are expanding or investing in their facilities	L	L	1										1	3			2						
7.6i	Emphasize the reuse of vacant and blighted buildings for business investment	L	M	2										3				2						
7.7 Support the emerging digital economy																								
7.7a	Promote and support the use of the internet by targeting disadvantaged schools, neighbourhoods with low use rates and women and girls.	S	L	3				1																
7.7b	Roll out broadband services to all of GAMA neighbourhoods, targeting centres first.	M	L	2													3							
7.7c	Address the male-female divides. Some 55 percent of Ghanaians use mobile phones, 10 percent more West Africans as a whole	M	L	2													3							
7.7d	Promote the use of mobile money transactions in rural areas and among women (at the start of 2021, at least 40 percent of Ghanaians aged 15 or older had mobile money accounts)	S	L	2													3							
7.8 Support agriculture and urban food production																								
7.8.a	Allocate land for agriculture in local plans, including land on the proposed GREEN•GAMA•GRID (or GGG). The GGG will help increase food security, improve agricultural productivity and profitability. Peri-urban agriculture should be part of the GGG and its protection and activation will ensure the production of fresh, healthy, local products and the preservation of land with a high agroecological value, while ensuring that the local population can access and enjoy the agricultural landscape.	S	L	3					2											1				
7.8.b	Link farmland and inner-city farm markets closer together.	S	L	3																	2			
7.8.c	Improve the water infrastructure in the peri-urban parts of GAMA.	S	H	3				2																
7.8.d	Support food production in rural neighbouring districts such as Ada East and Ada West.	S	H	2																	3			
7.8.e	Build warehouses to accommodate the agricultural outputs as this will reduce the post-harvest losses.	S	H	2																	3			
7.9 Encourage and support international and domestic tourism																								
7.9a	Draft strategic plans to develop the tourism sector as an economic opportunity and development catalyst in the local government.	S	L	3																				
7.9b	Establish Public-Private partnerships for the development of new concepts and identification of neighbourhoods in GAMA with potential for visits.	M	L	3																				
7.9c	Accra to make marketing campaigns to enhance the awareness of the cultural heritage in the GAMA.	M	L	3																				
7.9d	Promote sustainable tourism by creating new initiatives like Chale Wote Street Art Festival in Accra.	S	L	2	3																			
7.9.e	Promote community-based tourism by involving local communities actively in the development and management of tourism activities, such as offering cultural tours or providing locally made products and services.	S	L	3	2																			



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X.X.X ACTION																							
8 Affordable and prosperous neighborhoods																							
8.1 Promote, protect and build affordable and healthy housing																							
8.1a	Establish an affordable housing trust fund that is supported by dedicated public funding sources.	S	L	3							2	1											
8.1b	Create incentives and financial assistance for new, affordable, quality rental homes that preserve neighbourhood character and support the land use plan.	L	M	3							2	1											
8.1c	Consider community land trusts to maintain affordability in markets facing pressure of displacement.	M	L	3							2	1											
8.1d	Encourage housing development that serve a variety of income levels.	M	L	3							2	1											
8.1e	Expand access to housing resources through a variety of media, including printed materials, virtual methods and in-person information sharing.	S	L	3							2	1											
8.1f	Create a good landlord program that recognizes rental property owners for providing quality housing and offers landlord and property maintenance training.	S	L	3							2	1											
8.1g	Promote the construction of accessory dwelling units such as above garages and on small lots to provide affordable housing options.	M	L	3							2	1											
8.1h	Revise regulations to allow accessory dwelling units on smaller lots by right to promote infill, income generation and family support.	S	L	3							2												
8.1i	Promote development of 'missing middle' housing and offer tax breaks on 'missing middle' housing to promote a diverse range of affordable, quality infill housing.	M	L	3							2	1											
8.1j	Encourage higher-density commercial and residential development in centres supported by high frequency public transport	M	L	3																			
8.1k	Incentivize housing and employment growth in and around centres and high frequency public transport corridors to preserve and support affordable housing.	M	L	3							2	1											
8.1l	Establish a set-aside of affordable housing or mixed-use projects involving publicly owned land	M	L	3																			
8.1m	Support home repair and thermal insulation for low-income populations	L	H	3							2	1											
8.2 Increase support and resources for community-based developers and businesses																							
8.2a	Build the capacity of small developers to execute a range of mixed-use/housing projects.	M	M	3							2	1											
8.2b	Identify small and emerging developers to implement small-scale development practices by partnering with MMDAs.	S	L	3							2	1											
8.2c	Decrease risk for private developers to work in distressed, low-income neighbourhoods by aligning public investments, and providing financing alternatives to support real estate development in these communities.	M	L	3							2	1											
8.2d	Create a rental registry database and require a local, registered agent for property owners who reside outside GAMA to maintain the property and address any code issues that may arise.	M	L	3									1										
8.2e	Design and implement housing programs to facilitate cooperation between mortgage lenders and applicants for the improvement of housing conditions.	M	M	3							1	2											
8.2f	Assist older homeowners to age-in-place through improvement programs	L	L	3				1			1	2											
8.3 Ensure that all neighbourhoods benefit from growth, improvement and development																							
8.3a	Develop accessible housing for people with disabilities within centres and along frequent transport routes.	L	H	3							2	1											
8.3b	Promote diverse dwelling types in areas targeted for infill development by adjusting the zoning code and applying financial incentives.	M	H	3							1	2											
8.3c	Develop diverse dwelling types in centres that can meet a variety of incomes, abilities, and aging needs.	L	H	3							2	1											
8.3d	Develop pathways to homeownership with alternative housing choices such as housing co-ops through non-profits, community members, and finance institutions.	L	M	3							2	1											
8.3e	Create community benefits agreements with developments and community members to establish clear benefits and expectations for community.	L	L	3							2												
8.3f	Advance community wealth building by supporting small business opportunities, job training, and education opportunities within the neighbourhood.	M	L	3							2	1		1				1					
8.3g	Minimize residential displacement due to redevelopment activity by maintaining affordability within existing activity.	M	L	3							2	1											
8.3h	Use land banking policies to support local and community- based ownership of land and housing stock.	M	L	3							2	1											
8.3i	Reduce homelessness resulting from poverty by supporting workforce training, access to transportation, access to affordable childcare, and other strategies.	M	L	3							2	1											
8.3j	Promote designs that accommodate persons with disabilities and to facilitate the ability of residents to age in place in their homes and neighbourhoods.	S	L	3							2	1											
8.3k	Increase the number of housing units that are accessible using appropriate design standards and codes	L	H	3							2	1											
9 Engaged communities																							
9.1 Build a culture and system of effective citizen planning and cross-functional partnerships that include marginalized populations																							
9.1a	Construct a set of principles that all departments use for engaging with residents and stakeholders.	S	L	3																			
9.1b	Expand community membership on decision-making boards to promote greater inclusion.	S	L	3																			
9.1c	Test a participatory budgeting process for small-scale neighbourhood projects.	M	L	3																			
9.1d	Use a variety of public engagement tactics to receive community input.	S	L	3																			
9.1e	Create an engagement review process to ensure effective engagement processes for the community.	S	L	3																			
9.1f	Identify a funding source for small scale planning demonstration projects.	S	L	3																			
9.1g	Educate residents on and promote the importance of urban planning and involving residents in the process	S	L	3																			
9.1h	Collaborate with community members and agencies in the creation and implementation of local area plans.	S	L	3																			
9.1i	Support, build, and expand community coalitions to broaden citizen engagement.	S	L	3																			
9.1j	Use incremental development projects to engage citizens in neighbourhood improvement.	M	L	3																			
9.1k	Increase community participation by using public art, better design, and other creative engagement tools.	S	L	3																			
9.1l	Maximize citizen participation through additional amenities at public meetings that may include providing food and beverages, childcare, and accessibility accommodations.	S	L	3																			
9.1m	Monitor and use new technology to share information with the public.	S	L	3																			
9.2 Improve public information sharing and communications for a responsive government and informed citizen base																							
9.2a	Create and maintain a GAMAPLAN website as the central digital hub of information, events and community engagement, and plan implementation status.	S	L	3							1												
9.2b	Expand communication by simplifying information and using a broader range of media for dissemination.	S	L	3							1												
9.2c	Encourage collaboration between agencies whose main function is community engagement.	S	L	3							1												
9.2d	Improve the timing of information sharing to citizens	S	L	3							1												
9.2e	Make and publicize accommodations for persons with disabilities at public meetings and events.	S	L	3																			
9.2f	Organize and promote the attendance of meetings and information sharing for the community when new development is proposed in neighbourhoods	S	L	3																			
9.2g	Assess available communication channels such as faith-based organizations, community groups, community centres, and libraries for disseminating information to individuals regarding planning initiative	S	L	3																			

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X GOAL	X-X OBJECTIVE	PERIOD	BUDGET	MMDA	OTHER	DUR	MSWR	MGCSP	FD/P&G	LUSPA	MWH	GREDA	MTI	AGI	MRH	MoE	MOH	GNCCI	GRDA	MoFA	MoT	MEIR	MLGRD
X-X-X ACTION																							
10 Green, GAMA, GRID																							
10.1 develop a Green GAMA GRID																							
10.1a	Create a GGG master plan that sets priorities and covers parks, trails, recreation, athletics, and open space priorities, and integrates with the GREEN+GAMA+GRID.	S	L	3																			
10.1b	Assess existing parks, community centres, golf courses, athletic fields, and sports facilities.	S	L	3					2														
10.1c	Create new parks and trails that connect centres to rivers, lakes, and other water bodies.	L	H	3					2														
10.1d	Protect the large green spaces or green space hubs within the GGG master plan.	M	H	3					2														
10.1e	Create new links and loops between hubs.	L	H	3		2																	
10.1f	Create new parks and green spaces to ensure residents are within proximity to parks and trails.	S	L	3					2														
10.1g	Plan for a diverse range of active and passive recreation amenities	S	L	3					2														
10.1h	Review park features and amenities to ensure assets are of high quality and appropriate for surrounding neighbourhoods.	M	L	3					2														
10.1i	Expand the GAMA open spaces network by connecting the GGG with existing parks and identifying land uses that can function as open spaces.	M	M	3					2														
10.1j	Provide all centres with adequate public spaces and parks by creating new spaces, including pocket parks.	L	M	3					2														
10.1k	Incorporate as public spaces the excess and underused road rights-of-way for the environment and neighbourhood	S	M	3		1			2														
10.2 Protect and expand urban forests, trees and vegetation																							
10.2a	Protect trees in areas of high forest coverage, enhance forest coverage with new tree planting in areas of no or low forest cover, and protect and enhance tree coverage in areas of average tree coverage.	M	M	3					2														
10.2b	Adopt tree planting and manage ordinances for trees on public property and private property.	S	L	3					2														
10.2c	Develop minimum tree coverage or tree cover density requirements.	M	L	3					2														
10.2d	Establish a minimum number or share of trees of a given size, usually measured as diameter at breast height (dbh), which must be protected or planted on a site.	M	L	3					2														
10.2e	Apply a minimum percentage of tree canopy requirement that emphasizes the preservation of stands or clusters of mature trees rather than individual trees.	S	L	3					2														
10.2f	Prioritise the protection of existing tree canopy because of its shade quality and root structure.	S	L	3					2														
10.2g	Develop area-based tree canopy coverage requirements (by street, neighbourhood, community, MMDA).	S	L	3					2														
10.3 Redevelop river basins and wetlands																							
10.3a	Research, classify and map wetlands, their functions and current land use to be used as input into restoration and development initiatives.	S	L	3																			
10.3b	Use a watershed approach in determining the location and design characteristics of the restoration or replacement of wetlands.	S	L	3																			
10.3c	Support public-private partnerships to improve wetland management, which incorporates private stewardship.	S	L	3					2														
10.3d	Establish a program to provide incentives to landowners to protect wetlands, and to provide funds for public acquisition, where deemed appropriate.	S	L	3			1		2														
10.3e	Encourage innovative land use incentives to help preserve wetlands such as cluster zoning and transfer of development rights.	M	L	3			1		2														
10.3f	Support efforts to conduct and sponsor educational and technical assistance programs on the values of wetlands, and management strategies to protect and enhance wetlands, including wetlands protection in local plans.	S	L	3			1		2														
10.3g	Encourage private landowners to protect, conserve, enhance and restore wetlands.	S	L	3			1		2														
10.3h	Reconnect or connect watercourse environments to the watercourse amenity.	S	M	3			1		2														
10.3i	Address the problem of political jurisdictions that do not align with watershed boundaries to ensure coordination	S	L	3			1		2														
10.4 Significantly reduce flooding throughout GAMA, targeting affected areas																							
10.4a	Create sponge-like areas to retain stormwater and delay flow.	S	L	3			1		2														
10.4b	Retain water in wadis (dry places to store rainwater) along roads and drains in neighbourhoods.	S	L	3			1		2														
10.4c	Develop sand traps to avoid downstream silting.	M	H	3																			
10.4d	Increase the storage capacity of rivers by widening their bed.	M	H	2																			
10.4e	Dredge, clean, and repair silted rivers and streams regularly.	S	M	2			3																
10.4f	Reduce impervious materials used in roads, parking, and walkways and use porous materials instead.	S	M	3			2				2												
10.4g	Increase trees and shrubs to channel surface water to roots and water table.	M	L	2																			
10.4h	Dredge lagoons periodically.	S	M	2			3																
10.4i	Lower the unbuilt areas along the lagoons to prevent more informal development.	S	L	3																			
10.4j	Widen lagoons where appropriate to accelerate flows to the ocean.	S	H	2			3																
10.4k	Accelerate flow to seas from rivers downstream.	S	L	3			2																
10.4l	Lower green areas next to drains to absorb water.	S	L	3			2																
10.4m	Support rain gardens and infiltration systems.	S	L	3			2																
10.4n	Use natural drainage swales as opposed to piping.	S	L	3			2																
10.4o	Develop stormwater reuse systems in buildings.	S	M	3			2																
10.4p	Create development standards that address extreme weather events and climate hazards, and stormwater runoff quality and quantity.	S	L	3																			
10.4q	Develop a guide to stormwater management best practices to implement green stormwater management solutions to scale.	S	L	3																			
10.4r	Implement measures to manage stormwater, which include infiltration and evaporation.	S	L	3																			
10.4s	Identify existing parks and trails that could be modified and maintained to provide flood mitigation value.	S	L	3					2														
10.4t	Create wadis, or water detention areas, to mitigate downstream flooding.	S	M	3			2																
10.4u	Integrate green stormwater infrastructure in street design.	S	L	3			2																
10.4v	Develop educational programs to build the capacity of the building industry to use best practices for green infrastructure and stormwater management.	M	L	3							2	1											
10.4w	Require land development within aquifer recharge areas to reduce infiltration	S	L	3					2														
10.5 Manage and protect surface water sources																							
10.5a	Assess water quality and sources of pollution of Densu and Volta rivers, seasonal streams from Akwapim Ridge, and various lagoons – all below WHO & Ghana EPA standards.	S	M	3			2																
10.5b	Develop a strategy to remove sediments from and unblock the Weija dam, which controls water levels in the Densu river, to enable dry season flows and avoid flooding in the rainy season.	S	H	2			3																
10.5c	Address the issue of downstream flooding of agricultural activities when the dam is opened to relieve pressure.	M	L	3			2																
10.5d	Address the issue of flows on the Dzorwulu and the Mamahuma rivers supply Sakumono, which are affected by dams on rivers.	S	L	3			2																
10.5e	Study and resolve the problem of domestic waste disposal on all rivers.	S	L	2		1	3																
10.5f	Study and reduce sediment discharges from the Volta River, regulated by the Akosombo dam, that leaves sediment on beaches and the Keta and Songor Lagoons.	S	L	3			2																
10.5g	Study and eliminate groundwater pollution from domestic wastewater disposal, seepage from gutters and storm drains, pesticide, and fertiliser contamination, and increase salinity, which renders groundwater drinkable	S	L	3			2																

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X.X.a ACTION																				
11 Interconnect green, public spaces and routes																				
11.1 Invest in public space improvements that provide multiple community and environmental benefits																				
11.1a	Invest in a high level of design, stewardship, and maintenance in public spaces to increase use.	S	L	3					2											
11.1b	Design parks to serve as gateways to a connected network of green infrastructure.	S	L	3					2											
11.1c	Establish and maintain links between park/open space and neighbourhood centres to ensure residents are within proximity to parks and trails.	S	L	3					2											
11.1d	Prioritize green infrastructure within new facilities and public space design.	S	L	3					2											
11.1e	Prioritize public spaces that promote and grow additional benefits and programs in the community.	S	L	3					2											
11.1f	Invest in public space improvements within centre neighbourhoods to support active social places.	S	L	3					2											
11.1g	Work to incorporate native plants into public parks and public spaces to reduce maintenance costs and improve natural systems.	S	L	3					2											
11.1h	Seek opportunities to create interconnected open space networks by integrating pocket parks in high-vacancy neighbourhoods.	S	L	3					2											
11.1i	Integrate public art and cultural resources into development, design, and landscapes.	M	L	3					2											
11.1j	Connect cultural resources, historic sites, and communities through greenways and trails.	S	L	3					2											
11.1k	Strategically improve public ROW within centres and along major corridors as vibrant, public spaces.	L	M	3																
11.1l	Ensure a proper transition to rural land use on the urban fringe by aggregating land into open space while eliminating blight.	S	L	3					2											
11.1m	Partner with local community organizations to maintain and manage open space assets.	S	L	3																
11.1n	Option passive park space for ecologically productive uses such as reforestation or restoration of native vegetation	M	M	3					2											
11.2 Revitalise existing parks, squares, and open spaces																				
11.2a	Identify and create a spatial database of all existing parks/public spaces.	S	L	3					2											
11.2b	Assess parks/open space in terms of size, quality, visibility access, distribution, and existing and potential use.	S	L	3					2											
11.2c	Develop a prioritised program to revitalise all existing parks and open spaces.	S	L	3					2											
11.2d	Form and work with neighbourhood committees to prepare park/open space revitalisation plans.	S	L	3					2											
11.2e	Develop a public awareness programme to promote the benefits and use of parks and open spaces for recreational, social, and environmental benefits.	S	L	3					2											
11.2f	Create, fund, and execute pilot projects to address maintenance and safety issues in underused parks.	M	M	3					2											
11.2g	Plan and execute regularly organized activities at parks/open spaces to encourage greater use.	S	L	3					2											
11.2h	Expand revitalisation to new sites by securing necessary commitments, resources, and organizational capacity.	S	L	3																
11.2i	Prepare, update, and share plans for park improvements, maintenance, safety and facility asset management.	S	L	3					2											
11.2j	Issue public notices when public assets or facilities are being redesigned.	S	L	3																
11.2k	Make parks accessible to persons with disabilities when planning for parks, greenways, and other public open spaces.	S	L	3					2											
11.2l	Increase park access and develop strategies to encourage connectivity between public space, bikes, and pedestrians,	S	L	3					2											
11.2m	Collaborate with private and neighbourhood organizations to help maintain and beautify parks and spaces	S	L	3					2											
11.3 Make our street green																				
11.3a	Assess all streets for complete street potential, considering current use, design elements and width.	S	M	3		1		2												
11.3b	Consider widening walkways, new pedestrian crossings and new planting to transform into a safe and pleasant environment, especially for pedestrians.	M	H	3		3		1												
11.3c	Undertake detailed mapping of the green system delineated in a GIS based on aerial images.	M	L	3		2		1												
11.3d	Assess current rivers and steep slopes buffer zones policy and plan to prohibit/control development within watercourses and steep slopes	S	L	3				2												
11.3e	Develop a strategy to relocate households that own or rent dwellings within flood and buffer zones.	L	H	3			2													
11.3f	Strictly enforce a no new building policy within flood and buffer zones.	S	L	3			2			1										
11.3g	Prioritise development near open space amenities such as parks or prominent watercourses.	S	L	3			2													
11.3h	Consider a policy to require developers to contribute additional infrastructure to improve current conditions and/or to mitigate negative i	M	M	3						2										
11.3i	Require development to the front on adjacent open space rather than turn its back to it, improving the environment and providing passive	S	L	3																
11.4 Increase and improve public toilets																				
11.4a	Engage the public in a conversation about public toilets and prepare an action plan.	S	L	3																
11.4b	Explore options: Renovate, build, purchase, or rent.	M	L	3						2										
11.4c	Plan for operational and financial sustainability.	S	L	3																
11.4d	Design Recognized good restroom design.	L	M	3																
11.4e	Gather information: walkabouts, maps, surveys.	M	L	3																
11.4f	Bring stakeholders together to plan.	M	L	3						2										
11.4g	Choose sites.	M	L	3						2										
11.4h	Understand Codes and Regulations.	S	L	3																
11.4i	Mobilize support from residents, businesses, and local officials.	S	L	3																
11.4j	Orchestrate media advocacy and work with journalists	S	L	3																
12 Create Sustainable and Resilient Environments and Neighbourhoods																				
12.1 Improve the health of environmental systems																				
12.1a	Encourage compact and infill development to reduce sprawl, limit the expansion of impervious cover, lower vehicle miles travelled, increase the viability of active mobility, such as walking and biking, and improve air quality.	S	L	3																
12.1b	Reduce GAMAs carbon footprint of the city and its residents by implementing the GAMA Area Climate Action Plan.	S	M	3																
12.1c	Encourage green roofs for water retention, energy use reduction, and urban heat island mitigation.	M	L	3																
12.1d	Use transfer of development rights to promote environmental protection and prevent sprawl.	S	L	3																
12.1e	Enhance river area planting and design strategies for soil stability, ecological function, public access, and aesthetic value.	S	M	3					2											
12.1f	Incorporate site resilience factors into zoning and development approvals.	S	L	3																
12.1g	Update the stormwater master plan to align with GAMA Structure Plan.	S	L	3						2										
12.1h	Protect, preserve and enhance surface water and groundwater resources, with a special focus on aquifers.	S	M	2			3													
12.1i	Protect critical watershed assets with specific emphasis on aquifer recharge areas and wetlands.	S	M	2			3													
12.1j	Establish and staff an urban forestry program that works with MMDAs and private partners to increase and sustain the urban tree canopy.	M	M	3					2											
12.1k	Prioritize tree canopies in coordination with the centres and corridors strategy.	L	M	3					3											
12.1l	Prohibit new development in floodplains to reduce flooding impacts and protect river ecosystems.	S	L	3																
12.1m	Consider relocation of people and assets away from flood-prone areas.	M	H	3																
12.1n	Plan for and encourage the adoption of cleaner, more fuel-efficient alternative fuels and electric vehicles to reduce emissions and improve air quality.	M	H	3			3							2						
12.1o	Work with fishing communities to discontinue unsustainable practices (such as chemical poisoning, dynamite, and fish traps made from mangrove branches) and develop alternative livelihoods and income sources.	S	L	3															2	
12.1p	Address the opening of the Weija dam, which makes fishing in the delta impossible.	S	L	2				3												
12.1q	Work with sand quarriers to reduce and control practices that cause land, water, air and ecosystem degradation	S	L	2				2												

[illegible]

[illegible]

GOAL - OBJECTIVE - ACTION			Implementors																						
			3 = Lead 2 = Key Partner 3 = Secondary Partner																						
x GOAL	x.x OBJECTIVE	x.x.x ACTION	PERIOD	BUDGET	MMDA	OTHER	DUR	MSWR	MGCSF	FD/P&G	LUSPA	MWH	GREDA	MTI	AGI	MRH	MoE	MOH	GNCCI	GRDA	MoFA	MeT	MLGRD		
14.2 Improve solid waste management throughout GAMA																									
14.2a Develop with MMDAs a long-term GAMA solid waste management plan that moves to a vision of zero waste.			S	M	3																				
14.2b Increase public education programmes around sustainable approaches to material and waste management and reuse, including household waste separation.			S	L	3																				
14.2c Provide single-stream curb side recycling services to increase recyclables as a share of the waste stream.			M	M	2		3																		
14.2d Develop a system to collect food surplus from restaurants, groceries and supermarkets and distribute it to needy households			M	M	3																				
14.2e Prioritize efforts to reduce waste generation from metropolitan, municipal and district assemblies whose respective generation rates are 0.63, 0.40 and 0.28 kg/person/day.			S	L	2		3																		
14.2f Prioritise efforts to compost organic waste as it accounts for about 66 percent of the waste stream.			S	M	2		3																		
14.2g In order of priority, reduce the total solid waste from commercial places (40 percent); factories, construction, mining, institutions, hotels, and restaurants (30 percent); and households (30 percent).			S	L	2		3																		
14.2h Reduce the share of plastic waste generation from the current 10 percent to 5 percent, and paper waste from 5 percent to 2.5 percent			S	M	2		3																		
14.2i Compost half of the 66 percent of waste which is organic matter.			S	H	2		3																		
14.2j Develop a system to recycle or reuse construction waste from projects that include demolition and incentivize construction projects to use repurposed materials.			M	M	2		3																		
14.2k Incentivize recycling to reduce paper and cardboard waste in landfills.			S	L	2		3																		
14.2l Identify value chain options for mulch, leaf litter, and yard trimmings.			M	M	2		3																		
14.2m Find alternate uses for waste tires, such as tires for trails, and playground surfacing.			S	L	2		3																		
14.2n Increase the capacity of MMDAs to divert and process food, yard, and wood waste for productive use.			M	L	2		3																		
14.2o Provide incentives such as tax holidays to encourage investors to invest in waste recycling and waste reuse systems			M	L	3		2																		
14.2p Intensify environmental and sanitary inspectors to carry out inspections and report, fine or prosecute households that are not complying with good sanitary practices.																									
14.2q Prioritise collection from commercial places, because it accounts for 40 percent of the waste stream (the rest being 30 percent from households, and 30 percent from factories, construction, mining, institutions, hotels, and restaurants).			S	L	3		2																		
14.2r Strengthen efforts to expand regular door-to-door collection services beyond metropolitan assemblies to municipal and district assemblies.			S	L	3																				
14.2s Address the issue of GAMA's four underused transfer stations at Achimota, Teshie, Kokomlemle and Gbawe, which are underused due to the now heavy traffic congestion and the wait in the transfer process			S	H																					
14.2t Identify and map the footprint of the private sector and informal domestic, communal and door-to-door waste collection services. There are over 35 registered waste collection companies, most operating in multiple MMAs , also operating door-to-door and providing storage household waste bins. Regular door-to-door collection services are reasonably widespread, especially within metropolitan assemblies.			S	L	3	2																			
14.2u Map the location of the over 174 communal collection containers 'sanitary sites', -where there is no house-to-house collection, and where waste is collected weekly-, and survey collection frequency and site cleanliness			S	M	3	2																			
14.2v Map the location of the areas served by direct haulage and transfer haulage. With direct haulage, collection vehicles collect the waste from homes and carry it to the disposal site. With transfer haulage, smaller vehicles collect waste and carry it to a transfer station, and then larger vehicles carry the waste to disposal sites.			S	L	3	2																			
14.2w The target for improved waste collection is the communities where waste collection services are not adequate as indicated by households that resort to burning, burying, or dumping in open public spaces where areas differ widely in their level of formal solid waste collection services			S	M	3	2																			
14.2x Increase the share of GAMA's households with adequate solid waste collection from 64 to 100 percent.			S	L	3	2																			
14.2y Monitor the use, transfer operation time, and cleanliness of GAMA's four waste transfer stations at Achimota, Teshie, Kokomlemle and Gbawe. Identify the cause of low usage and develop a plan to improve the speed of the process. Reduce the waiting time at queues at the transfer station endured by the “borla” taxis (motorised tricycles), which comprise 33 percent of the vehicles and cause them to drive to the final disposal sites.			S	L	3	2																			
14.2z Develop ways to improve turnaround times for unloading, which is now done manually, to make the use of borla more efficient, as long working hours and low use efficiencies increase operational costs.			S	L	3		2																		
14.2.aa Extend solid waste collection services to the 36 percent of GAMA households that are not covered and who burn, dump and bury their waste			S	M	3	2																			
14.2bb Increase landfill fees and encourage the separation of waste demolition materials.			M	L	3																				
14.2cc Plan for the closing and restoration of the Kpone landfill. It was constructed in 2012 with a design life of 10 years.			S	H	3																				
14.2dd Plan for a new landfill to accept Kpone's current load of 800-1200 tons-per-day (TPD) which comes from MMDAs and Achimota and Teshie transfer stations			S	H	2		3																		
14.2ee Review the environmental impact of the Nsumia dump, an unlined pit that receives waste directly from collectors. It is in Nsawam Adoagyiri Municipality (Eastern Region) and with a capacity of 680,000 m³.			S	L	3		2																		
14.2.ff Install a scale at the Adepa dump, in Nsawam Adoagyiri Municipality (Eastern Region), which receives transfers from the Achimota transfer station.			S	M	3	2																			
14.2gg Review operations and economics of the mechanised waste-to-compost plant, which processes about 600 tonnes per day, or 18 per of GAMA waste, operated by Zoomlion and JVL-IWMI . Consider upscaling the operation to additional sites			S	M	3	2																			
14.2.hh Improve the operations of the informal recyclers (scavengers and dismantlers), who manually dismantle and separate waste and recover valuable materials like copper, iron,aluminium, and printed wiring boards. Ensure that they do not burn these waste types			S	L	3	2																			
14.2.ii Cover the Glefie site (Weiija area) completely and convert it into a woodlot where trees are planted as a green and porous infrastructure.			S	L	3	2																			
14.3 Improve e-waste management throughout GAMA																									
14.3a Develop a long-term, zero e-waste management plan that prevents further soil and water contamination as well as negative health impacts.			L	H	2		3																		
14.3b Develop an awareness-raising program on dangers related to e-waste and the benefits of e-waste reduction.			S	L	2		3																		
14.3c Built on GIZ's initiatives on sound e-waste management, encourage e-waste recycling, and discourage disposal of e-waste.			S	M	2		3																		
14.3d Engage with informal scrap collectors and processors to understand their concerns and manage e-waste better. Further, strengthen the capacity development component of the Hazardous and Electronic Waste Control and Management Act, 2016 (Act 917) to support informal sector players at the micro level to manage e-waste more sustainably and in a way that is less damaging to the environment and the population's health.			S	L	3	2																			
14.3e Secure a recycling site outside of Accra (members of the GASDA are working on it[3]) and formalize the activity, working with urban-based collectors and rural recyclers.			M	H	3		3																		
14.3f Limit e-waste imports.			S	L	3																				
14.3g Address the health issues linked to e-waste treatment.			S	L																		3			



GOAL - OBJECTIVE - ACTION			Implementors																				
			3 = Lead 2 = Key Partner 3 = Secondary Partner																				
X GOAL	X,X OBJECTIVE	X,X,X ACTION	PERIOD	BUDGET	MMDA	OTHER	DUR	MSWR	MGCSF	FD/P&G	LUSPA	MMW	GREDA	MTI	AGI	MRH	MoE	MOH	GNCCI	GRDA	MoFA	MoT	WECS
15 Access to sufficient sources of energy, migrating to solar, wind and more hydro																							
15.1 Prioritize energy efficiency and clean, renewable energy resources																							
15.1a	Revise building and energy codes for new residential and commercial buildings with higher standards to reduce energy consumption and promote energy efficiency.		S	L	3																		
15.1b	Assist homeowners and renters with high energy burdens and set targets for reducing the number of households – particularly low-income households - that pay a large percentage of their incomes to energy costs.		S	M	3							2											
15.1c	Encourage the energy companies to be leaders in clean energy sources.		S	L	3																		
15.1d	Require pre-sale energy audits for new and existing houses.		M	L	3							3											
15.1e	Integrate energy efficiency and renewable energy standards into city-based economic development incentives.		M	H	2							3											
15.1f	Subsidize green building retrofits for businesses and homeowners.		M	H	2							3											
15.1g	Give economic incentives to homeowners to replace inefficient appliances, including air conditioners, refrigerators, clothes washers, and freezers.		S	H	3																		
15.1h	Identify neighbourhoods that are most receptive to pilot incentives for energy efficiency.		M	L	3																		
15.1i	Encourage cool-green roofs to increase cooling efficiency for buildings and to decrease the urban heat island effect.		M	L	3																		
15.1j	Retrofit existing streetlights to LED.		S	H	3																		
15.1k	Commit to producing a share of GAMA's electricity needs from renewable sources.		L	H	3																		
15.1l	Encourage the adoption of cleaner, more fuel-efficient or alternative fuel vehicles, such as electric vehicles, to reduce emissions and improve air quality.		L	H	3																		
15.1m	Where feasible, encourage the development of charging infrastructure on city-owned properties		L	H	3																		
15.2 Increase Electricity Generation																							
15.2a	Develop a smart power grid so that solar panel owners can sell power back to utility.		S	M	2	3																	
15.2b	Provide government financial support (grants, loans, technical advice) to encourage households to install solar electric panels and batteries and install solar water heaters.		S	M	2	3																	
15.2c	Identify and concentrate on neighbourhoods where households have already begun to install the solar technology.		S	M	2	3																	
15.2d	Use MCC programme to boost energy efficiency in air conditioners and refrigerators.		S	M	2	3																	
15.2e	Develop a programme to encourage consumers to reduce electricity consumption in buildings (LED lights, insulation, thermal windows, shades, and electric and electronic appliances).		S	M	2	3																	
15.3 Support Renewable energy Initiatives																							
15.3a	Consult with Ghana's solar energy firms to explore the potential for solar energy projects in GAMA.		M	M	3																		
15.3b	Review the study on rooftop photovoltaic solar power generation and consider pilot projects		M	M	3																		
15.3c	Integrate solar and wind energy initiatives in local planning, which should include a baseline energy assessment of existing solar and other resources.		M	M	3																		
15.3d	Establish standards, policies, and incentives for solar and wind energy projects.		S	L	3																		
15.3e	Identify and remove unintended barriers to renewables such as height restrictions.		L	M	3																		
15.3f	Create incentives for solar by streamlining the approval process, reducing permitting costs, and increasing flexibility on other standards in exchange for solar installations.		M	L	3																		
15.3g	Consider requiring solar orientation for new development or requiring solar-ready development.		L	L	3																		
15.3h	Install solar systems on public buildings MMDA buildings, libraries, schools, and police and fire stations.		M	M	3																		
15.3i	Consider co-locating solar development and agricultural activities (agri-voltaics), including on small farms that can become more viable with additional income from hosting solar facilities.		L	M	3																		
15.3j	Repurpose previously developed sites, including capped landfills or other brownfields, for solar farms before choosing a site near or on farmland.		M	H	3																		
15.3k	Co-locate solar and agriculture, or agri-voltaics, combining grazing land or shade-grown crops with solar facilities		L	H	3							2											
15.4 Improve Electricity Transmission																							
15.4a	Replace outdated transformers and ageing transmission lines that cause significant transmission losses (Nyarko Kumi, 2017).		S	H	1	3						2											
15.4b	Increase transmission network capacity to handle transmission at peak times to avoid overloading and power losses.		S	H	1	3						2											
15.4c	Explore the feasibility of burying power lines in places that would benefit from improved aesthetics.		M	H	1	3						2											
15.4d	Implement planned priority transmission projects: 161 kV Volta-Achimota-Mallam line corridor upgrade, 330 kV Anwomaso-Kintampo line, 330/34.5 kV Pokuase Substation and 161/34.5 kV Kasoa Substation.		M	H	1	3						2											
15.4e	Prioritise main electricity distribution and connections for three percent of households that do not use mains power for lighting but use flashlights, candles, solar lamps, kerosene lamps, solar panels, private generators, gas lamps, wind energy or nothing.		M	M	1	3																	
15.4f	Ensure that low-income households are aware and are charged in accordance with Ghana's Public Utilities Regulatory Commission's (PURC) below-cost, lifeline tariff in line with the Government of Ghana's Poverty Reduction Strategy (GPRS).		S	L	1	3						2											
15.4g	Promote the use of renewable energy for cooking, especially using energy-efficient induction cooktops to reduce the use of fossil fuels.		S	L		3																	
16 Increase Investments in Information Communicating Technologies																							
16.1 Increase Equitable Access to ICT																							
16.1a	Map the current broadband service areas and the few areas in GAMA where internet connections may be poor and the schedule from NITA when they will extend a powerful network to all areas.		S	M	2	1						3											
16.1b	Promote household and personal ownership and use of communication and ICT devices assets for a better-informed society, targeting places with low-use shares.		M	M	2	3																	
16.1c	Promote to persons aged six and above the ownership and use of ICT devices for people to become better informed and connected.		M	L	2	3																	
16.1d	Develop a strategy to engage GAMA's private radio broadcasting firms to support the development of GAMA and the GAMAPLAN. GAMA has over 210 radio stations, some in Nswam, Aburi and Kasoa, that already participate in creating awareness of development issues.		S	L	3	2																	
16.1e	Explore the opportunity to better use print media - GAMA has 95 percent of all private print media headquarters, including the two traditional national newspapers – to provide a forum for communication to and from the public.		S	M	2	3																	
16.1f	Develop a smart city plan for GAMA to mobilize technology to support GAMA's goals of connectivity, shared mobility, safety and quality of life.		M	M	2	3																	
16.1g	Invest in smart city infrastructure, including wireless connectivity, broadband, and connected infrastructure.		M	M	2	3																	
16.1h	Create and expand technology applications to allow citizens to better access and improve services.		S	H	2	3																	
16.1i	Establish guidelines for 5G deployment that align with the land use plan and streets plan.		M	M	2	3																	
16.1j	Establish GAMA broadband as a public utility.		M	L	2	3																	
16.1k	Expand free Wi-Fi to public spaces, such as parks, community centres, and libraries throughout GAMA.		M	M	2	3																	
16.1l	Pilot high-quality public wireless internet in key centres and commercial corridors and determine opportunities to scale.		S	M	2	3																	
16.1m	Integrate artificial intelligence features into public assets throughout GAMA to address safety, connectivity, asset tracking and other capabilities.		L	H	2	3																	
16.1n	Integrate electric vehicle charging, shared mobility, and rideshare options into the future street design and curb management		L	H	3	2																	

GOAL - OBJECTIVE - ACTION	Implementors																					
	PERIOD	BUDGET	MMDA	OTHER	DUR	MSWR	MGCSF	FD/P&G	LUSPA	MWH	GREDA	MTI	AGI	MoE	MOH	GNCCI	GRDA	MoFA	MoT	MELR	MLGRD	
																						3 = Lead
X GOAL																						
X.X OBJECTIVE																						
X.X.a ACTION																						
17 Improve health equity and provide high-quality, accessible, efficiently managed, and properly funded facilities																						
17.1 Provide accessible and equitable social development infrastructure																						
17.1a In the near term (1–3 years), increase the number of low-income households receiving free healthy home assessments and link to resources to address any issues found.	S	M	3																			
17.1b In the long-term (7–10 years), install built and natural infrastructure to mitigate light, air, and noise pollution for residents living near motorways and the International Airport. Implementers of this action can be TDOT, Airport Authority, etc.	M	H	3																			
17.1c Protect, restore, and enhance the natural and man-made environment, taking steps to improve environmental quality, prevent and reduce pollution, and conserve the values and functions of natural resources and ecosystems.	S	M	3			1		1														
17.1d Ensure that land-use planning and development decisions minimize the exposure of residents, workers, and visitors to hazardous substances.	S	L	3																			
17.1e Do not locate new residences and schools in areas where significant quantities of hazardous substances are handled, stored, or disposed of. Do not locate new industrial facilities that use toxic materials or produce hazardous waste in residential or environmentally sensitive areas.	S	M	3	2																		
17.1f Maintain regulatory and inspection programs to ensure that all businesses that store, distribute, or dispose of hazardous materials comply with all applicable health, safety, and environmental requirements – such as used oil collection facilities and medical waste from area hospitals and clinics.	M	L	3	2																		
17.1g Collaborate with human service providers in the non-profit, private and public sectors in their efforts to provide a network of human services tailored to the variable needs of GAMA residents.	S	M	3				2															
17.1h Encourage public agencies to provide services, public education, outreach materials and information to GAMA residents in multiple languages	S	L	3																			
17.1i Work with the school districts, libraries, and human service providers to ensure that all residents are aware of and able to participate in available human service programs.	S	L	3																			
17.1j Partner with private enterprises, non-profit organizations, and other entities to provide adequate support to underserved populations in GAMA.	S	L	3																			
17.1k Develop a plan to identify underserved populations and barriers to participation in parks and recreation programs and offer inclusionary support strategies to address the barriers.	S	L	3				2															
17.1l Strategically plan and implement improvements to city facilities and infrastructure to ensure the necessary needs and services are provided to the community. Protect existing facilities and users from redevelopment and deterioration.	M	M	3																			
17.1m Develop and maintain an asset management system to evaluate and rate the conditions of public infrastructure.	S	L	3					2														
17.1n Monitor and evaluate the direct and indirect effects of increasing temperatures on the health of GAMA residents. Special attention should be paid to residents of flood-prone areas.	S	M	3																			
17.1o Partner with businesses, healthcare organizations, schools, and residents to promote local, preventative health education programs.	S	M	3				2								2							
17.1p Prioritize the rehabilitation and supply of parks, greenways, and recreation amenities, especially in underserved areas of GAMA to encourage physical activity.	S	M	3				2															
17.1q Implement streetscape enhancements such as shade trees, awnings, public art, and pedestrian amenities to encourage people to be physically active.	S	M	3				2															
17.1r Ensure that any kind of social development infrastructure is easily accessible by walking, cycling and/or public transport.	M	M	3				2	2														
17.1s Integrate social infrastructure with other facilities; Encourage shared-use and co-locate facilities (ex: use of classrooms in community schools for religious programmes and use of school parks for funerals and other social events)	M	M	3				2															
17.1t Locate child-care facilities in market centres and formal places of employment	S	M	3				2															
17.1u Ensure that high-quality, affordable primary health centres are available and accessible to all residents.	S	M	3				2								1							
17.1v Assist local partners in expanding access to health care services for underserved populations.	S	M	3				2								1							
17.1w Distribute basic level and emergency medical facilities so that all residents have safe, convenient access to such services.	L	H	3				2								1							
17.1x Review and assess zoning regulations to identify barriers to, and create opportunities for, the development of primary care facilities and neighbourhood clinics, including the reuse of existing non-residential buildings in residential zones	S	L	3				2								1							
17.1y Partner with healthcare entities to promote, support, and expand the availability of public health services and programs.	S	H	3				2								1							
17.1z Ensure that all centres have hospitals.	L	H	3				2								1							
17.1aa Locate new teaching hospitals (premium facility) at selected centres.	M	H	3				2								1							
17.1bb Centres that already have health centres should upgrade these facilities into hospitals.	S	H	3				2								1							
17.1cc Areas of high-density areas should have hospitals.	S	H	3				2								1							
17.1dd Provide additional teaching hospitals to cater to anticipated population growth.	L	H	3				2								1							
17.1ee Create synergies where specialist hospitals are close to other health facilities within a centre	L	H	3				2								1							
17.2 Ensure adequate numbers and locations of NADMO and Ghana fire safety facilities																						
17.2a As the population increases within GAMA, the presence and distribution of NADMO and Ghana Fire Service stations needs to be reviewed for a more equitable service.	S	L	3																			2



K GOAL K.X OBJECTIVE K.X.A ACTION	Implementors																						
	3 = Lead 2 = Key Partner 3 = Secondary Partner																						
	PERIOD	BUDGET	MMDA	OTHER	DUR	MSWR	MGCSP	FD/P&G	LUSPA	MWH	GREDA	MTI	AGI	MRH	MoE	MOH	GNCCI	GRDA	MoFA	MoT	MELR	MLGRD	
17.3 Integrate gender concerns into planning																							
17.3a Promote funding for higher education programmes for women in the tertiary sector.	M	H					2								3								
17.3b Provide on-campus accommodation for student mothers.	S	M					2								3								
17.3c Address the problem of child marriage and teenage pregnancies through engagements with community leaders and civil society organizations under the auspices of the MoGCSP.	S	L					2								3								
17.3d Introduce measures to promote change in the socio-cultural norms and values inhibiting gender equality.	S	L					2								3								
17.3e Actively engage women in programmes and training to address the substantial gender gaps in earnings and skilled jobs.	S	L					2								3								
17.3f Train women's groups in financial management.	M	L					2								3								
17.3g Develop a programme to increase the security of tenure of women in peri-urban areas, who face greater constraints and barriers emanating from existing patriarchal inheritance regimes.	M	M					2								3								
17.3h Plan housing developments with services such as childcare, market spaces, and laundry facilities.	L	H					2								3								
17.3i Provide ample play space within housing developments to promote child development and lighten caregiving burdens.	L	M					2								3								
17.3j Provide affordable accommodation and facilities for vulnerable young female migrants from northern Ghana, mostly illiterate hawkers and porters, who are exposed to violence, exploitation and unplanned pregnancies, and whose children are also at risk.	S	M					2								3								
17.3k Increase public awareness and sensitize GAMA residents on gender-based violence (GBV) prevention and mitigation through community educational programming that focuses on men and boys as change agents.	S	L	1				2								3								
17.3l Expand and improve street and public space lighting to increase safe mobility for women and girls, and reduce the risk of gender-based violence after dark and in the early mornings.	S	M	1				2								3								
17.3m Establish shelters for victims of domestic gender-based violence using the ARK foundation facility as a model.	M	M	1				2								3								
17.3n Improve the safety of public places such as lorry parks and community facilities such as public toilets. These areas tend to have poor lighting which makes women feel unsafe, especially at night.	S	L	1				2								3								
17.3o Enhance security patrol services.	S	L	2				2								3								
17.3p Create safe environments for small businesses owned by women.	S	L	1				2									3							
17.3q Improve the safety of long-distance traders especially women on the public transport system, especially at night and early dawn	M	L	3				2																
17.3r Reconsider the redevelopment of Efua Sutherland Children's Park business expansion and development.	M	M	3				2																
17.3s Introduce regulatory requirements to ensure that new communities in low-income areas on the outskirts of Accra provide recreational facilities.	M	M	3				2																
17.3t Improve sanitation and hygiene facilities in schools to increase the attendance of girls and reduce exposure to the risk of infections and disease.	S	L	3				2																
17.3u Revise the street names to include gender main-streaming in the street addressing process	M	L	3				2																
18 Provide accessible, high-quality public services, targeting low-income and vulnerable populations																							
18.1 Guarantee access to public services to all, including vulnerable population																							
18.1a Require transport service providers and agencies to enhance their services towards vulnerable populations. For example, improve access to ambulance services for pregnant women.	M	L			1		3														2		
18.1b Encourage public agencies to provide services, training and outreach materials for Information and Communication Technology (ICT), reproductive health services, domestic violence prevention services and safety and security services to GAMA residents in multiple languages.	M	M	1				3								2								
18.1c Rehabilitate or develop new healthcare facilities in underserved and/or high-poverty neighbourhoods, and in areas with high populations of senior citizens, the physically disabled, and others with unmet healthcare needs.	M	H					3								2								
18.1d Seek funding through partnerships and grants to provide health, human care, and shelter accommodations.	S	L					3								2								
18.1e Develop a plan to identify underserved populations and barriers to participation in parks and recreation programs and offer inclusionary support strategies to address the barriers	M	L	3				2																
18.1f Enhance facilities such as braille and sign language in public places to improve the accessibility, usability and travelling experience for the visually, hearing and speech impaired populations.	M	L	3				2																
18.1g Equip public facilities with ramps and handrails to facilitate the mobility of the physically challenged.	S	M	3				2																
18.1h Cover structures such as open drains, gutters and other potential hazards with flat and non-slippery surfaces	M	L	3				2																
19 Improve the access to health services for specific groups: women, children, seniors, and other vulnerable people																							
19.1 Improve the access to health services for women, seniors, children, and disabled people.																							
19.1a Introduce programmes in collaboration with agencies for public health education to address the issue of stigma and discrimination faced by PLWHAs.	S	L	1				2																
19.1b Ensure adequate provision of health centres for slum residents.	S	H	1				2								3								
19.1c Ensure proper coordination with stakeholders in the health sector to carry out strategies for increased access to health for vulnerable people.	S	M	1				2								3								
19.1d Support the Livelihood Empowerment Against Poverty (LEAP) program — a national cash transfer programme for poor and vulnerable households covering 100,000 households.	S	H	1				2								3								
19.1e Use the data from the Fast-tracking Digitalization of Ghana Cards and health records to target neighbourhoods and people with the	S	L	1				2								3								
19.1f Identify and expand the coverage of social protection programmes listed above to ensure improved access to residents in all GAMA communities.	S	L	1				2								3								
19.1g Work with child rights agencies to ensure the safety of children from abuse and exploitation.	S	L	1				2								3								
19.1h Collaborate with schools and outreach agencies to ensure the children are aware of their rights and means of seeking help from their abusers.	S	L	2				3																
19.1i Work with DOVVSU and community leaders to protect children from defilement, rape and forced marriages.	S	L	2				3								2								
19.1j Support the implementation of the Ghana School Feeding Programme — “to provide social assistance, promote school enrolment and attendance, enhance nutrition and promote local production”.	S	M	3				3								2								
19.1k Support the implementation of the Education Capitation Grant to provide funds for non-salary expenditures in public schools.	S	M																					
20 Improve access to education, knowledge, and culture																							
20.1 Provide more accessible and affordable educational facilities.																							
20.1a Collaborate with the private sector to provide basic educational facilities in new communities to reduce commuting time for learners and caregivers.	M	H	1				3								2								
20.1b Rehabilitate community libraries to promote literacy for both adults and children.	M	H	1				3								2								
20.1c Set up museums and cultural centres to promote cultural knowledge.	L	M	3																				
20.1d Provide funding in the form of scholarships for tertiary education to low-income women	M	M	2				1								3								
20.2 Ensure access to quality educational facilities at all levels																							
20.2a Improve accessibility to high-quality facilities in all tertiary institutions to avoid congestion in the few ones that have them, to de-populate the institutions in GAMA core.	M	H	2												3								
20.2b Strengthen the core by emphasising STEM programs in all tertiary institutions, particularly for those at the periphery.	M	H													3								
20.2c Encourage the development of satellite UoG campuses at the periphery to encourage the vibrancy of activities in the related centres in addition to providing access to quality facilities and programs.	L	H													3								
20.2d Develop a research triangle park (RTP) in the educational enclave at UoG to complement Nuguchi Research Centre, UoG Teaching Hospital, the University of Wisconsin and the University of Professional Studies	M	H													3								

GOAL - OBJECTIVE - ACTION	PERIOD	BUDGET	MMDA	OTHER	DUR	MGSWR	MGCSW	FD/P&G	LUSPA	MWH	GREDA	MTI	AGI	MRH	MoE	MOH	GNCCI	GRDA	MoFA	MoT	MELR	MLGRD	Implementors		
																							3 = Lead 2 = Key Partner 3 = Secondary Partner		
x GOAL x,x OBJECTIVE x,x,a ACTION																									
20.3 Access to sports and recreational facilities																									
20.3a Reserve centrally located and accessible spaces equipped with basic facilities such as changing rooms and washrooms for women's sporting activities.	M	M	3					2								1									
20.3b Promote the participation of women in community sports competitions.	S	L	2					3																	
20.3c Work with appropriate agencies to ensure access to funds to enhance female participation in sports at all levels.	M	L	2					3																	
20.3d Sensitize community/traditional leaders on the important opportunities in sports for women.	M	L	2	3																					
20.3e Introduce award schemes and sponsorships to encourage women's participation in sports	M	L	2					3																	
20.4 Improve access to cultural and learning facilities																									
20.4a Increase the accessibility of cultural and learning facilities through better transport connectivity; better physical accessibility; direct location of new cultural and learning facilities in/around centres	L	L	3					2																	
20.4b Reduce user fees for accessing cultural and learning facilities to make those more financially accessible to low income.	M	L	3					2																	

## Annex B - Investment Plan

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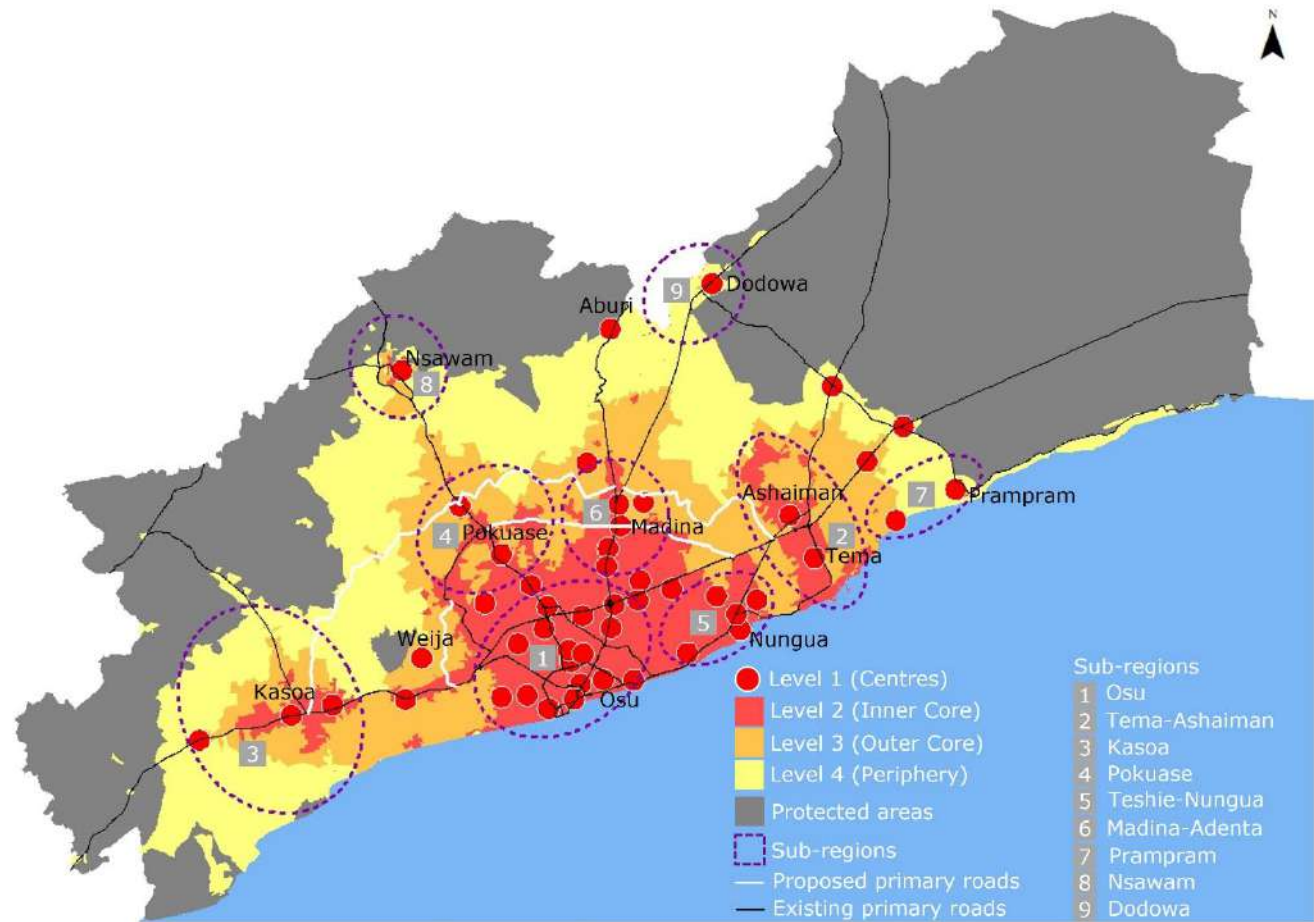
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# 1 Investment Plan for the Greater Accra Metropolitan Area Structure Plan

This is the Investment Plan (InvP) for GAMAPLAN 2040. The InvP outlines a spatial investment strategy to achieve key policy objectives and actions proposed by GAMAPLAN. The Plan identifies 46 large capital investments that are tangible and spatially identifiable. The potential impacts of investment projects contained in this Plan will cut across multiple MMDAs. The InvP also specifies the type of investment and suggests potential stakeholders or investors for each investment project. It also categorizes the budget required for implementing the projects as low, medium, or high. By following the spatial investment strategy outlined in the InvP, the aim is to contribute to the realization of important goals and the overall vision of GAMAPLAN over its 15-year duration.

The GAMA Investment Plan is guided by the overarching spatial development strategy of GAMAPLAN, which categorizes investment priorities into four distinct areas or zones (Figure 1). Level 1 encompasses 50 designated urban centres highlighted in dark red, as proposed in GAMAPLAN. Level 2 corresponds to the inner built-up areas, shown in red. Level 3, depicted in orange, represents the outer built-up areas. Lastly, Level 4, indicated in yellow, represents the urbanizing periphery. Additionally, the figure identifies protected areas where investment is permitted only under exceptional circumstances.

Figure 1: Spatial Development and Investment Concept

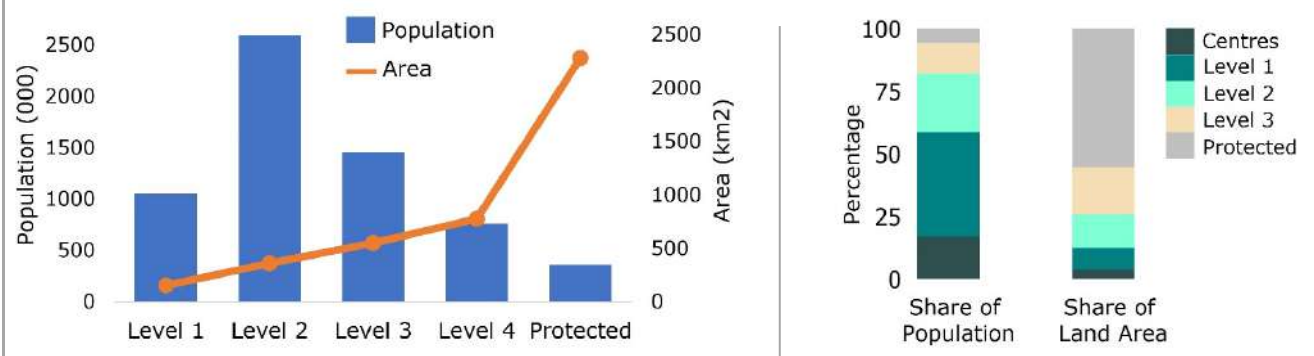


Source: COWI

Of GAMA's six million population, about 60 percent reside in Level 1 and Level 2 areas, despite these areas only covering 12 percent of GAMA's land area (Figure 2). Level 2 areas, with a population density of 7200 persons per square kilometre (ppkm<sup>2</sup>), and Level 1 (centres), with a density of 6850 ppkm<sup>2</sup>, are

the densest areas in GAMA, over four times denser than GAMA as a whole. Consequently, the majority of actions in the InvP are assigned to these levels to address the needs of the densely populated areas and to encourage Level 1 areas to attract population and increase in density.

Figure 2: Population and land area characteristics of investment level areas



Source: COWI

Of the over 700 actions in GAMAPLAN and its implementation plan, 46 are investment-oriented actions and assigned to the relevant investment

levels. Some 46 percent to Level 1, 61 percent to level 2, 37 percent to Level 3, 17 percent to Level 4 and 15 percent to protected areas.

It is important to note that the purpose of these investment levels is not to indicate increasing importance but rather to differentiate between various types of metropolitan policies, service priorities and funding priorities within each area. Level 1, 2 and 3 represent areas where GAMA's policies should facilitate growth and economic development, with particular emphasis on level 1 and 2. In these areas, GAMA should encourage land-use policies that promote higher densities and mixed-use developments in suitable locations, creating complete communities that integrate residential, recreational, commercial, and retail spaces.

In Level 4 areas, GAMA's policies should focus on supporting agriculture, preserving natural and cultural resources, and promoting investments in open space, including activities that support the agriculture industry. It is important to encourage land-use policies that embrace a rural character and support appropriate agribusiness activities while also protecting and restoring natural resources in this area.

Protected areas encompass parcels of land that are not intended for development or redevelopment. These areas consist of important natural, ecological, and food resources, such as forestlands, water bodies, wetlands, and agricultural lands.

## Level 1 (Centers)

Centres are vibrant focal points where people, jobs, and activities converge. Ideally, these centres should be mixed-use spaces, incorporating dwellings, offices, shops, workplaces, public gathering areas, and more. Within the Greater Accra Metropolitan Area (GAMA), centres exhibit a significantly higher density of activities compared to their immediate surroundings and other subareas within the city.

GAMA Centres come in various sizes and serve diverse functions. Some centres are expansive, catering to the entire metro area, while others are smaller, serving specific communities or neighbourhoods. The different types of centres in GAMA include metropolitan, sub-regional, district, neighbourhood, and micro centres, each functioning according to their unique roles.

GAMAPLAN identifies the location of fifty centres based on internationally recognized best practices and extensive discussions with the project team and key stakeholders. The selection of centre locations took into consideration the presence of existing centres and commercial areas, especially malls, as well as proximity to major roads, planned BRT and rail corridors, other centres, institutional areas, and the potential for development and redevelopment

opportunities. Physical barriers and constraints to development were also factored into the decision-making process.

To ensure optimal development, GAMA centres should be transformed into high-density Transit-Oriented Development (TOD) centres. All centres should embrace a mixed-use approach, with some centres exploring vertical integration, where upper floors accommodate residences or offices while the ground floor houses shops and services.

GAMA should prioritize reinvesting in and intensifying the development of its metropolitan and downtown core centres, such as the centres of Accra and Tema. These centres should offer a diverse range of housing options, foster economic growth, and become GAMA-wide destinations accessible through multiple modes of transportation. They should serve as vibrant spaces where people can live, work, shop, and engage in recreational activities.

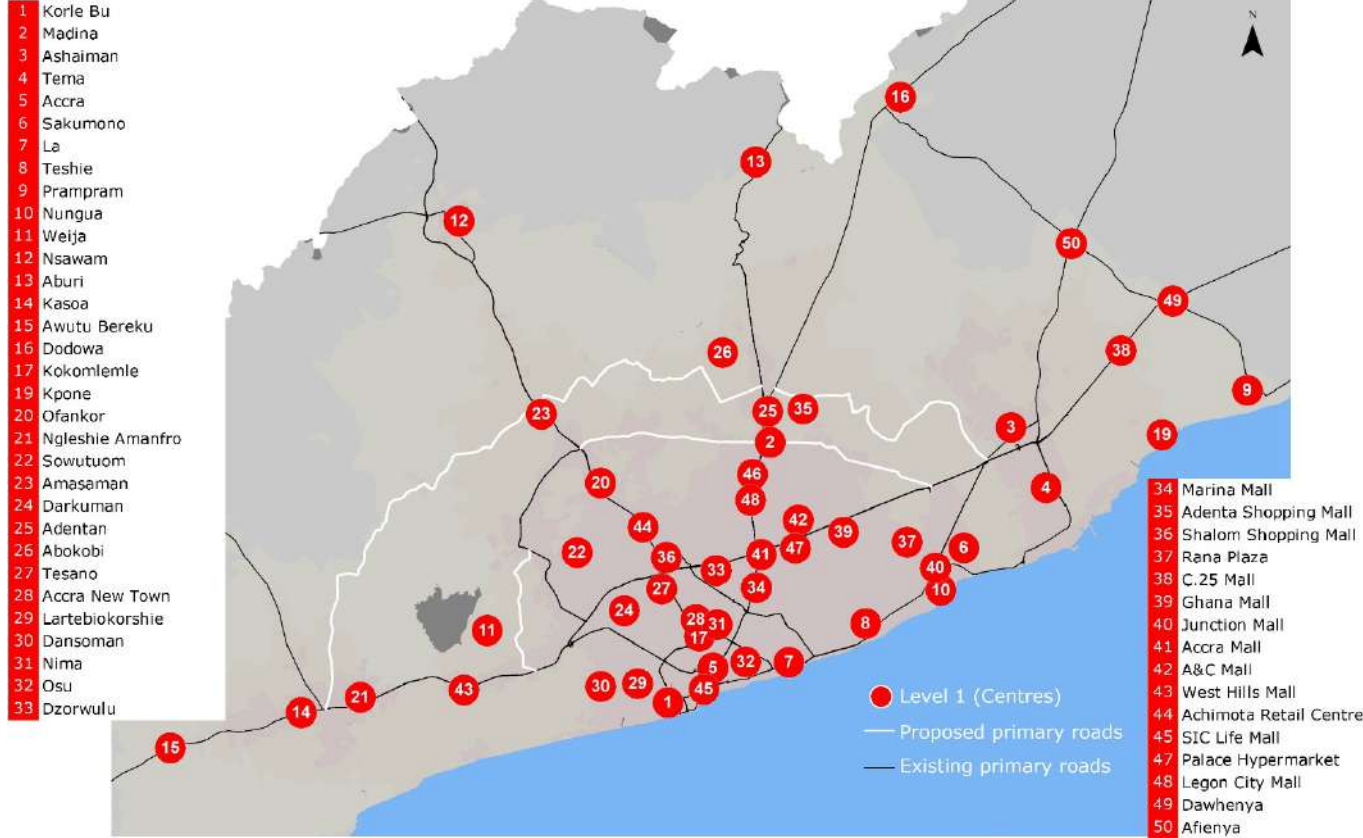
Special urban centres, including notable areas like Osu's Oxford Street and Airport City I and II, should feature a vertical mix of uses, including residential, commercial, office, civic, and cultural institutions. These centres should cater to the entire city and local

neighbourhoods. Land use planning in these areas should prioritize creating walkable, mixed-use centres with multi-story block-scale and some house-scale buildings, extending across several adjacent blocks and along the streets, thus establishing cohesive districts.

Neighbourhood centres play a crucial role in providing essential retail and services to the

surrounding communities. These centres should serve as walkable or bikeable destinations where people can conveniently meet their daily needs in a single trip. The architecture of neighbourhood centres should primarily comprise detached single- and multi-family duplexes, as well as apartment buildings, ensuring a harmonious blend within the residential fabric.

Figure 3: Map of Investment Level 1 Areas (Centres)



Source: COWI

## Level 2 (Inner Core)

Investment Level 2 areas primarily encompass urban regions within the Metropolitan, Municipal, and District Assemblies (MMDAs) of GAMA. These areas generally exhibit a higher population density compared to the surrounding regions and offer a range of transportation options for convenience. The buildings in these areas often feature mixed-use functionality, where commercial establishments occupy the ground floor while residential units are located above.

There are three main clusters of Level 2 investment areas. The first and largest cluster stretches from Osu to Nungua, Osu to Madina, Osu to Pokuase, and Osu to Weija. The second cluster covers Tema and Ashaiman areas, while the third cluster revolves around Kasoa.

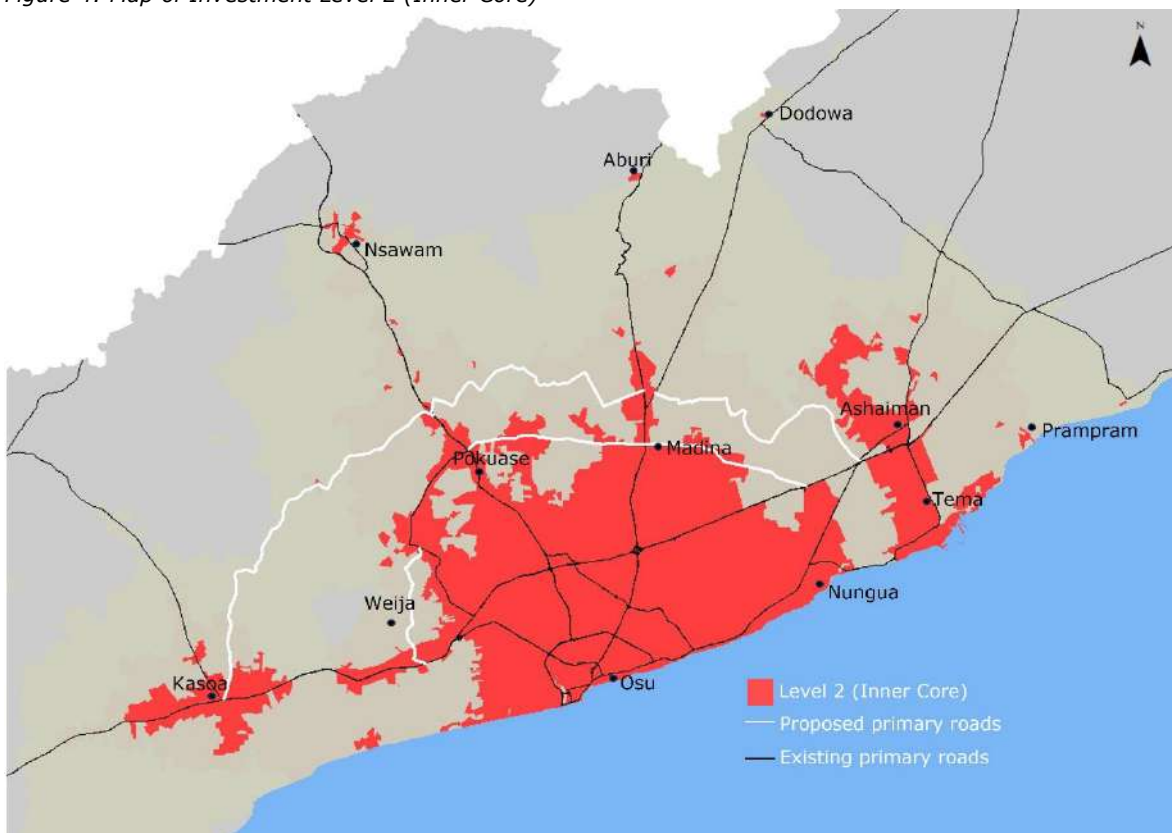
To effectively utilize Investment Level 2 areas, GAMA should implement strategies that support and encourage a diverse range of uses and densities. The



promotion of various transportation options is essential to enhance accessibility within these areas. It is crucial to optimize the utilization of existing public and private investments and to enhance community identity and integrity. Through strategic spending and management, GAMA should aim to preserve and improve the unique character of these areas while promoting well-designed and efficient new growth.

Investment Level 2 areas often encompass Central Business Districts (CBDs), urban centres, slums, and distressed neighbourhoods. In these areas, strong partnerships between the public and private sectors are crucial for community redevelopment and economic revitalization. Thoughtful measures should be taken to expand the availability of housing options, reducing housing prices and rents to improve living conditions.

Figure 4: Map of Investment Level 2 (Inner Core)



Source: COWI

## Level 3 (Outer core)

Investment Level 3 areas encompass a diverse range of characteristics and primarily consist of less developed but rapidly expanding regions within the Metropolitan, Municipal, and District Assemblies (MMDAs) of GAMA. These areas serve as transitional zones between Level 2 and the less densely populated areas of GAMA. In terms of housing, Level 2 areas generally offer a limited variety of housing

types, predominantly consisting of detached single-family homes.

To effectively develop Investment Level 3 areas, GAMA should implement strategies that mirror the support and encouragement provided to Investment Level 2 areas. Investments and policies should prioritize promoting a diverse range of uses and population densities, fostering alternative mobility



and accessibility options, maximizing the efficiency of existing public and private investments, and enhancing the sense of community identity and cohesion.

Incentives and investments should steer away from the conventional model of single-family residential developments and instead encourage a wider variety of housing types and commercial sites. Compact and mixed-use development should be promoted where suitable. GAMA should utilize its financial resources

and employ effective land use planning strategies to actively support well-planned development in these areas.

Development in Investment Level 3 areas should encompass diverse housing options, efficient transportation and mobility systems, important open spaces and recreational amenities, as well as other public facilities and services that foster a strong community spirit.

Figure 5: Map of Investment Level 3 (Outer Core)



Source: COWI

## Level 4 (Periphery)

Investment Level 4 areas can be categorized into three distinct types. The first type includes emerging development areas that are in proximity to fast-growing Level 3 investment areas. These areas are characterized by the presence of detached single-family houses that are sporadically dispersed. The second type comprises indigenous rural communities that feature small yet compact houses. Lastly, the third category of Level 4 areas

consists of undeveloped lands that are rich in important natural resources such as trees, water, wetlands, and croplands.

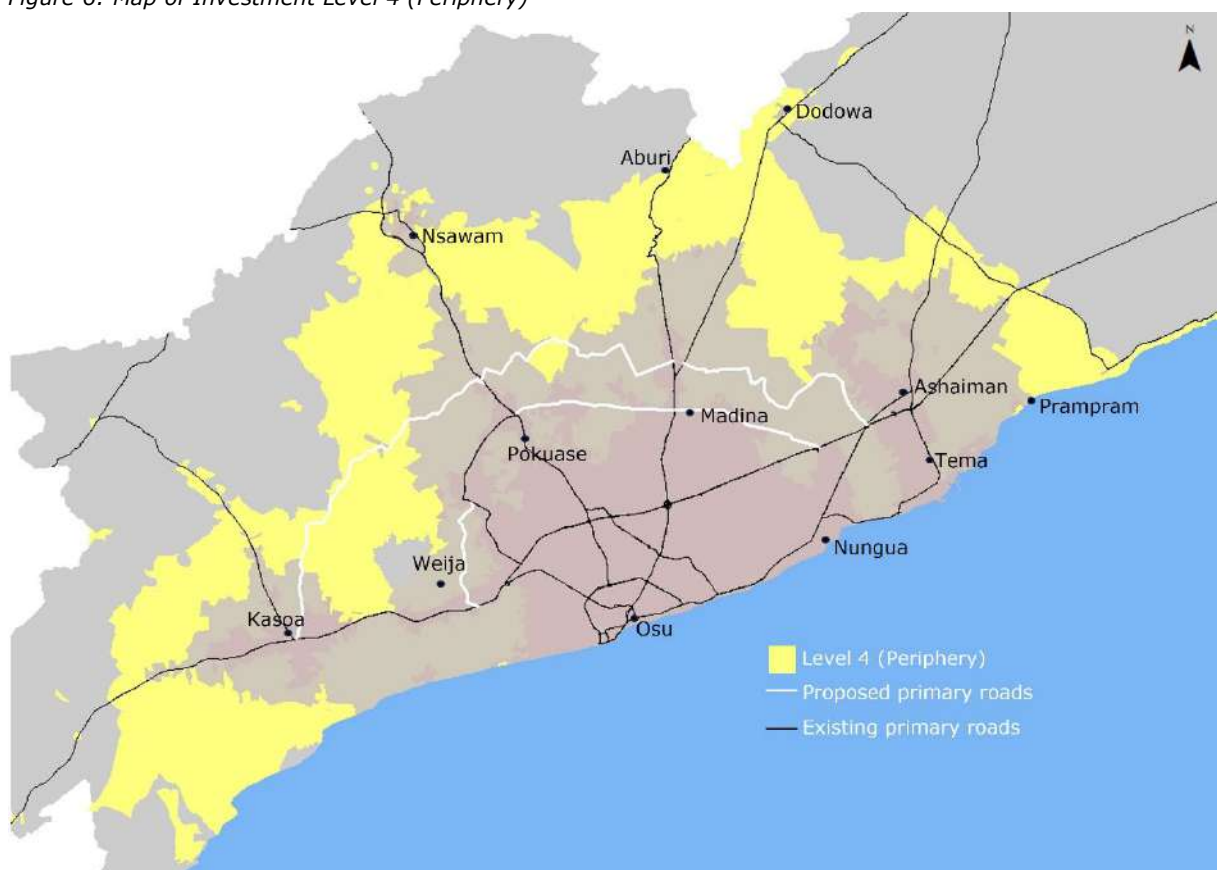
Among the development-oriented investment areas, Investment Level 4 has the lowest population with 759,000 residents, but it encompasses the largest land area of 777 km<sup>2</sup>. Consequently, it exhibits the lowest population

density among the investment areas, with 976 people per square kilometre.

To effectively manage Investment Level 3 areas, GAMA should pursue two sets of policies. Firstly, policies should be implemented to maintain the natural and rural landscape of the area, with a particular emphasis on preserving farmlands. This includes protecting important natural resources,

promoting sustainable land use practices, and safeguarding the rural character of these areas. Secondly, GAMA should focus on promoting infilling and containing development within defined boundaries in developing areas that are near Level 2 investment areas. This approach ensures that development is concentrated and controlled, minimizing urban sprawl, and preserving the integrity of the surrounding rural landscape.

Figure 6: Map of Investment Level 4 (Periphery)



Source: COWI

## Protected Areas

Protected Areas within GAMA refer to lands that are intentionally excluded from development or urban expansion. These areas encompass forestlands, farmlands, bodies of water, wetlands, and other valuable natural resources. Protected Areas account for more than half of GAMA's total land area and are home to approximately 6 percent of GAMA's population, which amounts to around 360,000

individuals. These lands primarily extend from the edges of Level 4 Areas to the boundaries of GAMA.

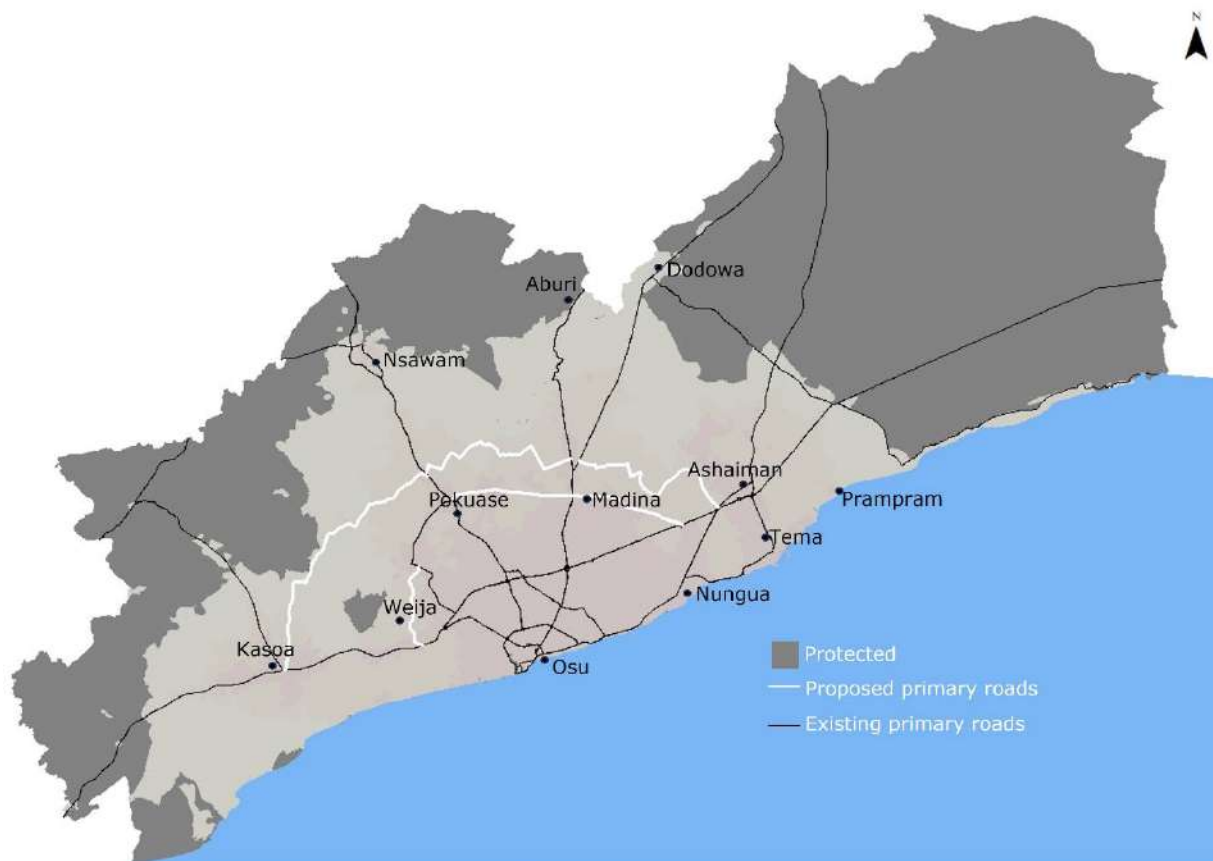
The investment strategy for Protected Areas should focus on promoting development that enhances and preserves the natural, ecological, and biodiversity landscape. While private sector activities such as residential subdivisions, commercial ventures, and industrial projects are discouraged, it does not imply

a complete absence of development within these areas. Instead, GAMA should actively encourage investments that contribute to the overall well-being and conservation of the Protected Areas.

Government agencies, property owners, and conservation organizations should allocate resources

and collaborate to maintain and protect the natural character of these areas. By prioritizing the enhancement and preservation of the ecological and biodiversity value of Protected Areas, GAMA can ensure the long-term sustainability and ecological integrity of these vital natural resources.

Figure 7: Map of Protected Areas



Source: COWI

# Investment Policy Objectives and Actions

Table 1: Summary of Level 1 Investment Actions

Objectives	Summary of Policy Actions	Investment Type	Potential Investors / Stakeholders	Budget
1.2 Focus future growth and density in and around existing and new centres	1.2.o Encourage higher-density commercial and residential development in centres supported by high frequency/capacity public transit	High density commercial and residential development	GREDA, AGI, GNCCI,	M
3.1 Increase the number of residents and jobs in centres and along corridors in a pattern that prioritizes multi-modal transportation options	3.1.b Develop housing accessible to all income levels, especially affordable, in and near centres and along major corridors	Mixed-income housing development	GREDA, AGI, GNCCI, MWH	H
3.2 Promote TOD in centres, facilitated by a High-Capacity Bus system and network.	3.2.b Promote TOD through a High-Capacity Bus (HCB) system and network that connects GAMA centres and will become a proper BRT over time.	Transport infrastructure development	GPRTU, PROTOA, DUR	H
4.4 Improve key corridors that connect people to existing and new centres through frequent public transport service and shared mobility.	4.4.e Promote mixed-use infill and redevelopment on key corridors and within sub-regions that should co-locate residential, employment, leisure, retail opportunities and other facilities (health, administrative, etc) to reduce the need for long-distance travel and maximize public transport potential as well as NMT use.	Mixed-use development	GREDA, AGI, GNCCI	H
4.1 Promote Transportation Demand Management	4.1.h Develop and integrate an intelligent transport system and create an integrated traffic management control centre to better manage traffic.	Transport infrastructure development	DUR, GPRTU, PROTOA	L
4.6 Improve existing road infrastructure.	4.6.a Introduce more dual major arterial roads that serve the proposed centres.	Road construction	DUR, MRH	H
4.11 Improve and integrate maritime transport into the mobility network	4.11.d Support the redevelopment of Tema Shipyard and Drydock Facility into world class facility to serve the growing marine and oil industries	Harbour infrastructure development	Shippers Council, GRA	H
	4.11.c Support construction of a direct railway link from Tema Port to the Boankra Inland Port (BIP)	Railway construction	GREDA, MoT	H
4.13 Strengthen high-capacity and rapid transit bus systems, networks, and infrastructure	4.13.f Introduce segregated lanes for BRT operations on the full proposed BRT network. Conduct a feasibility study to identify roads sections where segregated lanes can be started on the short-term, considering removal of car lanes.	BRT development	MRH, DUR	H
	4.13.a Create a unified and accessible BRT and HCB network, integrated with the road, rail and NMT networks.	Transport infrastructure development	MRH, DUR, GPRTU, PROTOA, GREDA	H

4.14 Complete the existing road system.	4.14.a Create a metropolitan-scale grid of roads serving GAMA centres with more circular and radial routes to decongest the city centre. Focus should especially be on the provision on additional arterial (or east-west) ring roads.	Road construction	MRH, DUR, GUMAP	H
4.15 Promote roadway and streetscape design based on surrounding context	4.15.e Introduce micro-mobility infrastructure in GAMA starting with centres, including infrastructure and equipment for bicycle share systems and scooters	Transport infrastructure development	DUR, GUMAP, MMDAs	L
4.7 Support success of existing operational commuter rail network and reactivate the segments that are not operating	4.7.b Put the Accra-Tema line back in operation, with an increased number of stations/halts served.	Railway development	GRDA, MoT	H
	4.7.a Rehabilitate and upgrade the Accra-Tema and the Accra-Nsawam lines to double lines.	Railway rehabilitation, upgrading, and expansion	GRDA, MoT	H
	4.7.d Upgrade the Accra-Tema Port-Tema line to serve as an intermodal transport of goods and people from the port to the outskirts of GAMA and remove encroachments at Batsona and Agbogloshie	Railway upgrading	GRDA, MoT, DUR	H
	4.7.g Link the commuter rail network to the proposed Tema-Akosombo standard rail line.	Railway extension	GRDA, MoT	H
8.3 Ensure that all neighbourhoods benefit from growth, improvement and development	8.3.a Develop accessible housing for people with disabilities within centres and along frequent transport routes.	Disability friendly housing development	GREDA, MWH, MGCSP	H
10.1 Develop a Green GAMA GRID	10.1.f Create new parks and green spaces to ensure residents are within proximity to parks and trails.	Parks development	Parks and Garden, Forestry Dept.	L
	10.1.j Provide all centres with adequate public spaces and parks by creating new spaces, including pocket parks.	Parks development	Parks and Garden, Forestry Dept. MMDAs	M
	10.1.e Create new links and loops between hubs.	Parks and vegetation development	DURs, MMDAs	M
	10.1.i Expand the GAMA open spaces network by connecting the GGG with existing parks and identifying land uses that can function as open spaces.	Parks and vegetation development	Parks and Gardens, Forestry Dept. MMDAs	M

Table 2: Summary of Level 2 Investment Actions

Objectives	Summary of Policy Actions	Investment Type	Potential Investors / Stakeholders	Budget
4.4 Improve key corridors that connect people to existing and new centres through frequent public transport service and shared mobility.	4.4.h Increase on key corridors, NMT facilities such as bike racks, storage, and shared use mobility stations, especially to support feeder/first/last mile trips.	NMT infrastructure development	MRH, MoT, DUR	M
	4.4.a Establish effective, convenient, and frequent public transport and shared transport services on key corridors and in sub-regions. Identify opportunities for increasing the frequency of public transport services over time.	Public transport development	MRH, MoT, DUR, GPRTU, PROTOA	H
4.5 Promote and support existing road capacity to service new development and density.	4.5.d Complete the rehabilitation of 7.5 km long Teshie Link Road (placing of asphaltic wearing course, installation of traffic lights, maintenance of grassing in median, etc), the upgrade 3.15 km Spintex Road One, Phase I and the road project-La Beach to improve access to and travel options within the Eastern Part of GAMA.	Road rehabilitation and upgrading	MRH, MoT, DUR	H
4.13 Strengthen high-capacity and rapid transit bus systems, networks, and infrastructure	4.13.f Introduce segregated lanes for BRT operations on the full proposed BRT network. Conduct a feasibility study to identify roads sections where segregated lanes can be started on the short-term, considering removal of car lanes	BRT development	MRH, DUR	H
4.7 Support success of existing operational commuter rail network and reactivate the segments that are not operating	4.7.b Put the Accra-Tema line back in operation, with an increased number of stations/halts served.	Railway development	GRDA, MoT	H
	4.7.a Rehabilitate and upgrade the Accra-Tema and the Accra-Nsawam lines to double lines.	Railway rehabilitation, upgrading, and expansion	GRDA, MoT	H
	4.7.d Upgrade the Accra-Tema Port-Tema line to serve as an intermodal transport of goods and people from the port to the outskirts of GAMA and remove encroachments at Batsona and Agbogloshie	Railway upgrading	GRDA, MoT, DUR	H
	4.7.f Link the commuter rail network with the planned alignment of the Trans-Ecogas Rail to strengthen the connectivity across GAMA and with its neighbouring regions.	Railway extension	GRDA, MoT	H
	4.7.e Upgrade, in the short term, six rail stations on the Accra-Asaprochona line at Circle, Achimota, Dzorwulo, Shangrila, Adegonor and Queensland (Nungua).	Railway upgrading	GRDA, MoT	H
	4.7.g Link the commuter rail network to the proposed Tema-Akosombo standard rail line.	Railway extension	GRDA, MoT	H



4.10 Redevelop existing international airport and access routes.	4.10.f Consider a tram around KIA to link with High-Capacity Bus (HCB) systems and then continue to LRT when traffic justifies this.	Transport infrastructure development	DUR, MoT	H
10.1 Develop a Green GAMA GRID	10.1.f Create new parks and green spaces to ensure residents are within proximity to parks and trails.	Parks development	Parks and Garden, Forestry Dept.	L
	10.1.c Create new parks and trails that connect centres to rivers, lakes, and other water bodies.	Parks development	Parks and Garden, Forestry Dept. MMDAs	H
	10.1.e Create new links and loops between hubs.	Parks and vegetation development	DURs, MMDAs	M
	10.1.i Expand the GAMA open spaces network by connecting the GGG with existing parks and identifying land uses that can function as open spaces.	Parks and vegetation development	Parks and Gardens, Forestry Dept. MMDAs	M
4.12 Develop an accessible, multimodal and integrated transportation network with PT as a core component.	4.12.b Create integrated, accessible, and demand-responsive PT and NMT networks throughout GAMA.	Transport infrastructure development	DUR, MoT	H
	4.12.d Promote multimodality throughout GAMA by developing transport hubs that combine multiple modes (PT, NMT, shared cars).	Transport infrastructure development	DUR, GPRTU, PROTOA, MoT	H
4.13 Strengthen high-capacity and rapid transit bus systems, networks, and infrastructure.	4.13.b Create a grid network of BRT and HCB bus routes across GAMA, serving centres and urban edges.	Transport infrastructure development	DUR, GPRTU, PROTOA, MoT	H
	4.13.e Locate the BRT network on the GARSDF proposed arterial bus network on the following five major arterials: Winneba Road, Nsawam Road, Liberation Road, Motor Way and Labadi Road.	BRT development	DUR, GPRTU, MoT	H
4.14 Complete the existing road system.	4.14.b Complete the Trans-African Highway (TAH) project through GAMA.	Road construction	MRH, MoT	H
	4.14.e Accelerate the construction of flyover over the Tema Motorway from Flowerpot Roundabout to reduce congestion at the flowerpot intersection and improve access between the northern and southern parts of the motorway.	Road construction	MRH, MoT, DUR	H
4.16 Expand the existing Pedestrian and Cycle (NMT) infrastructure and network.	4.16.j Short-term cycling network planning: start the implementation of the cycling network at the micro-scale of neighbourhoods which have the highest bicycle ownership, using segments of the GREEN GAMA GRID.	Cycling infrastructure development	MMDAs, DUR	M
	4.16.c Expand existing NMT network to create and promote GAMA-wide pedestrian and cycle routes that adequately serve and connect GAMA centres with each other.	NMT infrastructure development	DUR, MMDAs	H

4.2 Promote parking strategies that manage demand and supply efficiently.	4.2.f Introduce park-and-ride lots at urban peripheries and at strategic locations around transport hubs where it is easy for people to shift modes.	Park-and-ride development	MMDAs, DUR	H
8.1 Promote, protect and build affordable and healthy housing.	8.1.l Set aside affordable housing units in housing or mixed-use projects involving publicly owned land.	Affordable housing development	GREDA, MMDAs	M
12.2 Protect life, property, infrastructure, and environment from disaster events.	12.2.u Increase street tree planting to offset the urban heat island effect.	Tree planting	MMDAs, Parks and Gardens	M
13.3 Improve water supply plant production.	13.3.c Increase the output of the Teshie-Nungua Desalination Plant to achieve its capacity of 15.8 mg/d and promote community awareness of the desalination process to overcome resistance to using seawater.	Water infrastructure upgrading	Ghana Water Company	H
20.2 Ensure access to quality educational facilities at all levels.	20.2.d Develop a research triangle park (RTP) in the educational enclave at UoG to complement Nuguchi Research Centre, UoG Teaching Hospital, the University of Wisconsin and the University of Professional Studies.	Research infrastructure development	GES, MMDAs, MoE	H

Table 3: Summary of Investment Level 3 Investment Actions

Objectives	Summary of Policy Actions	Investment Type	Potential Investors / Stakeholders	Budget
4.7 Support success of existing operational commuter rail network and reactivate the segments that are not operating	4.7.b Put the Accra-Tema line back in operation, with an increased number of stations/halts served.	Railway development	GRDA, MoT	H
	4.7.a Rehabilitate and upgrade the Accra-Tema and the Accra-Nsawam lines to double lines.	Railway rehabilitation, upgrading, and expansion	GRDA, MoT	H
	4.7.d Upgrade the Accra-Tema Port-Tema line to serve as an intermodal transport of goods and people from the port to the outskirts of GAMA and remove encroachments at Batsona and Agbogloshie.	Railway upgrading	GRDA, MoT, DUR	H
	4.7.f Link the commuter rail network with the planned alignment of the Trans-Ecogas Rail to strengthen the connectivity across GAMA and with its neighbouring regions.	Railway extension	GRDA, MoT	H
	4.7.g Link the commuter rail network to the proposed Tema-Akosombo standard rail line.	Railway extension	GRDA, MoT	H
10.1 Develop a Green GAMA GRID	10.1.f Create new parks and green spaces to ensure residents are within proximity to parks and trails.	Parks development	Parks and Garden, Forestry Dept.	L



	10.1.c Create new parks and trails that connect centres to rivers, lakes, and other water bodies.	Parks development	Parks and Garden, Forestry Dept. MMDAs	H
	10.1.e Create new links and loops between hubs.	Parks and vegetation development	DURs, MMDAs	M
	10.1.i Expand the GAMA open spaces network by connecting the GGG with existing parks and identifying land uses that can function as open spaces.	Parks and vegetation development	Parks and Gardens, Forestry Dept. MMDAs	M
4.13 Strengthen high-capacity and rapid transit bus systems, networks, and infrastructure.	4.13.e Locate the BRT network on the GARSDF proposed arterial bus network on the following five major arterials: Winneba Road, Nsawam Road, Liberation Road, Motor Way and Labadi Road.	BRT development	DUR, GPRTU, MoT	H
4.14 Complete the existing road system.	4.14.b Complete the Trans-African Highway (TAH) project through GAMA.	Road construction	MRH, MoT	H
	4.14.e Accelerate the construction of flyover over the Tema Motorway from Flowerpot Roundabout to reduce congestion at the flowerpot intersection and improve access between the northern and southern parts of the motorway.	Road construction	MRH, MoT, DUR	H
4.16 Expand the existing Pedestrian and Cycle (NMT) infrastructure and network.	4.16.c Expand existing NMT network to create and promote GAMA-wide pedestrian and cycle routes that adequately serve and connect GAMA centres with each other.	NMT infrastructure development	DUR, MMDAs	H
10.3 Redevelop river basins and wetlands.	10.3.h Reconnect or connect watercourse environments to the watercourse amenity.	Wetlands and river basins development	MMDAs, Parks and Gardens	M
10.4 Significantly reduce flooding throughout GAMA, targeting affected areas.	10.4.a Create sponge-like areas to retain stormwater and delay flow.	Natural areas development	GWC, MMDAs	L
14.2 Improve solid waste management throughout GAMA.	14.2.j Cover the Glefe site (Weija area) completely and convert it into a woodlot where trees are planted as a green and porous infrastructure.	Tree planting	GWC, MMDAs, Parks and Gardens	L

Table 4: Summary of Investment Level 4 Investment Actions

Objectives	Summary of Policy Actions	Investment Type	Potential Investors / Stakeholders	Budget
2.1 Construct new/upgraded affordable units.	2.1.l Complete the USD 200m Saglemi affordable housing scheme at Prampram, a 5000-residential unit facility on a 300-acre site with 180 blocks of 1,500 flats completed.	Affordable housing development	MWH, GREDA	H
10.1 Develop a Green GAMA GRID	10.1.f Create new parks and green spaces to ensure residents are within proximity to parks and trails.	Parks development	Parks and Garden, Forestry Dept.	L

	10.1.c Create new parks and trails that connect centres to rivers, lakes, and other water bodies.	Parks development	Parks and Garden, Forestry Dept. MMDAs	H
	10.1.e Create new links and loops between hubs.	Parks and vegetation development	DURs, MMDAs	M
	10.1.i Expand the GAMA open spaces network by connecting the GGG with existing parks and identifying land uses that can function as open spaces.	Parks and vegetation development	Parks and Gardens, Forestry Dept. MMDAs	M
10.3 Redevelop river basins and wetlands.	10.3.h Reconnect or connect watercourse environments to the watercourse amenity.	Wetlands and river basins development	MMDAs, Parks and Gardens	M
10.4 Significantly reduce flooding throughout GAMA, targeting affected areas.	10.4.a Create sponge-like areas to retain stormwater and delay flow.	Natural areas development	GWC, MMDAs	L
13.1 Restore all rivers and streams to healthy ecosystems.	13.1.a Replant stream buffers in riparian areas on public property and encourage private property owners to do the same.	Tree planting	MMDAs, Parks and Gardens	M

Table 5: Summary of Protected Areas Investment Actions

Objectives	Summary of Policy Actions	Investment Type	Potential Investors / Stakeholders	Budget
10.1 Develop a Green GAMA GRID	10.1.f Create new parks and green spaces to ensure residents are within proximity to parks and trails.	Parks development	Parks and Garden, Forestry Dept.	L
	10.1.c Create new parks and trails that connect centres to rivers, lakes, and other water bodies.	Parks development	Parks and Garden, Forestry Dept. MMDAs	H
	10.1.e Create new links and loops between hubs.	Parks and vegetation development	DURs, MMDAs	M
	10.1.i Expand the GAMA open spaces network by connecting the GGG with existing parks and identifying land uses that can function as open spaces.	Parks and vegetation development	Parks and Gardens, Forestry Dept. MMDAs	M
10.3 Redevelop river basins and wetlands.	10.3.h Reconnect or connect watercourse environments to the watercourse amenity.	Wetlands and river basins development	MMDAs, Parks and Gardens	M
10.4 Significantly reduce flooding throughout GAMA,	10.4.a Create sponge-like areas to retain stormwater and delay flow.	Natural areas development	GWC, MMDAs	L

targeting affected areas.				
13.1 Restore all rivers and streams to healthy ecosystems.	13.1.a Replant stream buffers in riparian areas on public property and encourage private property owners to do the same.	Tree planting	MMDAs, Parks and Gardens	M