BENEFITS

Water security is one of the most serious threats facing Amman. Improving water efficiency in households can save money and ensure the availability of water. Such actions to improve the efficiency of Amman's use of water will be essential to ensuring the availability of clean water for future generations.

Improving the capture and treatment of stormwater will reduce flooding, saving people and property from the damage of flash floods. It will also protect Amman's natural ecosystems from pollution caused by runoff. Managing stormwater more efficiently will reduce emissions, lowering air pollution levels.

PARTNERS AND STAKEHOLDERS

Coordination on water and wastewater actions is complex. As noted, Amman does not have lead responsibility for these services, as they are provided through the national level government. In addition, the policies and regulations that govern them are set by the national government. However, he city can take the lead in action areas related to municipal buildings, open space and the efficient use of water or water reuse in these areas. In other action areas, the city will act as an advocate for its residents and a partner in delivery.

ACTIONS TO REDUCE WATER DEMAND AND IMPROVE WASTE WATER MANAGEMENT

ACTIVITY	TIMEFRAME	VOLUME OF EMISSIONS REDUCED	SUSTAINABILITY BENEFITS
Implement rainwater harvesting at GAM-owned municipal sites	Short-Medium	Low	Reduced water usage for landscaping, and slow runoff into the storm water system
Implement greywater recycling at GAM-owned municipal sites	Medium	Medium	Reduced water use
Install water efficient fixtures in GAM buildings	Short-Medium	Low	Reduced water use and costs
Create a storm water master plan for Amman	Short	Unknown	Reduced water use and costs
Develop areas of green infrastructure in the city to capture and slow storm water	Medium	Unknown	Reduced flooding and costs of managing storm water
Plant drought-tolerant plants in parks and public areas, and install efficient irrigation systems. Use recycled greywater or captured rain water in all municipal green sites to reduce groundwater uptake	Short	Low	Reduced water use and cost

URBAN PLANNING
ENHANCING THE QUALITY OF LIFE IN AMMAN

CHALLENGES

Approaches to urban development and land use policy can change the shape of cities and affect the quality of life in drastic ways. Policies that encourage sprawl lead to long transit times, increased energy use, air pollution and increased cost of living. Encouraging density in previously developed areas of the city helps reduce energy use, support public transportation use, and contribute to a vibrant city center. Amman created a Metropolitan Growth Plan in 2008 that focused on planning and development in key areas of the city. It recognized that if Amman continued growing as it had in the past, (at a density of 5 persons per dunum) vast areas of agricultural land would need to be settled, and the entire Metropolitan Planning Area would be filled by 2025 (Greater Amman Municipality 2008).

As a result of the Metropolitan Growth Plan, improved planning policies were put into place to increase population density. However, since 2008, new pressures emerged from the rapid increase in population that have intensified the expansion of the city boundary. Based on projections done by the World Bank, land consumption in Amman will increase by 14 percent between 2015 and 2030 in a business as usual scenario. Almost half of this growth (17 square kms) is expected to happen outside of zoned areas, even with the policies put into place in the Metropolitan Growth Plan. Green or arable lands in the east and south of Amman are likely to be converted to urban uses.

New zoning laws in Amman are aiming to slow this growth and freeze development outside of core urban areas. These efforts will need to be scaled up and coordinated with green building incentives, as well as public awareness and enforcement campaigns.

KEY GOALS AND **OPPORTUNITIES**

KEY SHORT-TERM OPPORTUNITES

- Include the Plan goals in future urban and transport planning, including updates.
- Further develop transit-oriented development policies to concentrate infill along the BRT lines being built.
- Increase green open spaces by modifying existing regulations, enabling the GAM to zone and create more public open spaces in the city.
- Properly enforce existing regulations and zoning policies to implement GAM's vision of an increase in green areas.

Creating cross-sector policies that encourage density will be key to controlling urban sprawl. Compact growth will reduce service costs to the municipality, locate residents closer to amenities and reduce travel time. Additionally, it will leave green and arable land intact for agriculture and recreation use. Residents benefit from increased density when it is planned alongside of good public transport connections, shared green spaces, and a mix of housing, shops, services, and businesses.

BENEFITS

The Hashemite Kingdom of Jordan, and Amman in particular, have experienced rapid urbanization and population growth, causing urban sprawl, a loss of green space, and an increase in informal settlements. Because of the lack of public transport in the city, this sprawl has led to an increase in private vehicle and taxi use, causing traffic jams, a loss of productivity and an increase in air pollution.

Closely managing land use, infilling existing development areas, reducing sprawl and increasing smartly planned density will bring many benefits to the people of Amman. It will also reduce transportation costs for inhabitants, improve air quality and connect communities across Amman. At the same time, it will provide informal settlements with improved neighborhoods.

PARTNERS AND STAKEHOLDERS

All sectors in Amman — from infrastructure, waste management and transportation —will be involved in planning for compact growth. Urban planning policies need to be well aligned with national development goals. This must also include considerations of social development, cultural heritage, tourism and more. The city of Amman will work closely with community groups and universities to devise innovative and sensitive policies that encourage smart densification.

ACTIONS FOR CROSS-SECTOR PLANNING

ACTIVITY	TIMEFRAME	VOLUME OF EMISSIONS REDUCED	SUSTAINABILITY BENEFITS
Examine housing policies to determine the factors driving the high vacant housing rate	Medium	Unknown	Increased available housing, and decreased housing costs
Coordinate transit-oriented planning with the planning and transportation departments	Short	Unknown	Maintained open spaces, reduced costs, and improved access to amenities
Enforce new policies that highlight natural heritage sites, green buildings, and public spaces	Short	Unknown	Improved air quality and walkability
Plan for increased green spaces to enhance tree cover and increase the number of trees in Amman (by expansion of anti-desertification projects and green urban infrastructure also surrounding the city with a ring of tress to achieve protection from dust and wind)	Medium	Unknown	Reduced heat island effect, improved walkability, and reduced local air pollution
Explore opportunities to incentivize urban agriculture in Amman, including zoning, financial incentives and other policies	Short	Unknown	Provide source of food for low-income households and possible, source of income
Supporting local societies and communities that play an essential role in raising awareness and helping to empower women and men to adopt sustainable lifestyles.	Short	Unknown	Improve knowledge of climate change, raise awareness
Implementing educational and recreational projects within the city that returns people back to nature and enhance their knowledge in these fields like botanical and theme gardens, eco parks, birds' gardens, butterflies gardens and zoos	Short	Unknown	Improve knowledge of climate change, raise awareness

NEXT STEPS
THE AMMAN PLAN BLUEPRINT

AMMAN HAS SET A VISION FOR 2050 AND ESTABLISHED A FRAMEWORK FOR ACHIEVING IT.

The action areas identified in this analysis should serve as the focus for policy priorities in future city governance actions and documents. The technical, financial and governance components of these transformational shifts need to be explored in order to identify a path for implementation. By 2020, Amman will provide an update on this initial Plan. It will also create the next version of the Amman Plan, identifying an implementation plan and timeline for action. As part of this effort, the city is creating a process for stakeholder engagement that will guide the process of action implementation.

Implementation of the actions identified in this Plan will require significant resources. Streamlining and facilitating financial flows for green growth will be key. As such, it will be crucial to coordinate across and within government agencies, engage with the private sector, and connect planning, and financing options. The components of this Plan can easily be aligned with and worked into the typical planning, budgeting and administration processes undertaken by municipal governments. Regarding financing, moving beyond conventional financial structures will be essential for Amman if it is to achieve its goals and meet the growing infrastructure demands.

Public investment needs to focus on funding public goods and services, while also creating a supportive environment for the use of private and foreign investment. This will result in a more efficient allocation of resources, leveraging scarce public funds to create a greater development impact. External financing can bridge gaps that cannot be covered by public revenues. It can include market-based borrowing, private sector partnerships, and donor aid and grants. The Plan facilitates the engagement of the private sector in a transparent and inclusive manner by creating opportunities for partnerships and green investments. Amman is seeking these types of investment partners in every sector to address climate change. Many of these actions have positive returns on investment and will be attractive to private sector financiers.