



منتدى الاستراتيجيات الأردني
JORDAN STRATEGY FORUM

Urban Development Sector

Jordan's Economic Vision Roadmap



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The Jordan Strategy Forum (JSF) is a not-for-profit organization, which represents a group of Jordanian private sector companies that are active in corporate and social responsibility (CSR) and in promoting Jordan's economic growth. JSF's members are active private sector institutions, who demonstrate a genuine will to be part of a dialogue on economic and social issues that concern Jordanian citizens. The Jordan Strategy Forum promotes a strong Jordanian private sector that is profitable, employs Jordanians, pays taxes and supports comprehensive economic growth in Jordan.

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This is an expert opinion report based on discussions and focus group meetings held by the Jordan Strategy Forum (JSF). The overall objective of this effort is to analyze different sectors (14) of the Jordanian economy and their respective challenges, and come-up with practical solutions and initiatives to enhance their competitiveness. Throughout this exercise, the JSF facilitated the focus group meetings, and supported the work-stream managers with any needed research and logistics.

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1. Introduction

At the heart of a nation-wide, multi-sectoral initiative that aims to provide Jordanians with a better quality of life is the Urban Development sector. Urban development shapes the built environment, which is, not only the stage of civic life where people live, work, learn, socialize and play, but its engine and driver of economic growth, development and progress. In education for example, which could be one of the most important sectors that requires serious attention and intervention in Jordan, no real progress can be made without looking at the physical environment in terms of quality, safety, comfort and accessibility. In addition, tangible developments cannot be realized in the sectors of energy and water where the built environment accounts for the majority of consumption without incorporating sustainable strategies and systems in our buildings, cities and rural communities. The transport sector provides another stark example of the cross-sectoral two-way impact of the urban development sector on other sectors; our cities cannot operate without a proper transport system, and in the same time, a proper transport system cannot be planned or realized if the city plan does not allow for it. Along the same lines, the urban development sector highly intersects with all other thirteen sectors, and within this framework, it needs to be considered as the hinge that connects the other thirteen sectors and not a parallel sector that harmonizes all the sectors together to realize the desired sustainable vision. It is more of the umbrella that brings all the sectors together, integrates their plans and policies to come with a better comprehensive and more sustainable development.

Jordan is facing many challenges, some of which are global that all the countries of the world are trying to cope with like those posed by Climate Change, the Covid-19 Pandemic and the new urbanization dynamics, while others are regional, like the regional conflicts and the refugee crises, and others are country specific, like the lack of investment, funding and economic growth, the increase of the national debt, expensive energy and lack of water sources. Within such landscape, the need for a serious national framework to uplift the realities of the urban development sector becomes paramount. A successful framework not only needs to respond to the multitude of the challenges above, but also needs to look into the latest trends in urbanization and community development in order to be able to withstand the uncertainties and challenge of the future. Accordingly planning needs to be adopted as the prime driver of development and growth on all national, metropolitan, district and local community levels. This should entail emphasis on open, green and civic spaces, inclusiveness, connectivity, sustainability, and conservation of heritage, agricultural

lands and natural resources, while leveraging Jordan's various natural, historical and cultural treasures.

In its deliberations, the Urban Development Sector committee invoked a multitude of rich planning principles and strategies that included, integration of design and governance, climate change adaptation, public participation and empowerment, digitization, protection and preservation of ecosystems, connectedness, among many other equally important concepts, and accordingly proposed a set of actionable and achievable pilot initiatives that will directly contribute to the progress of the urban development in Jordan. These initiatives are the base roadmap for further work needed to develop these initiatives. The committee highlighted the importance of investing in the needed assessments that would highlight the important GAP, strengths and weaknesses of each component prior to investing in the plan for change. The purpose of these initiatives is to highlight the needed actions and these actions on their turn need the proper research, assessment, evaluations, recommendation and then the plan for change. to deliver an inclusive, safe, sustainable and resilient built environment though out the country.

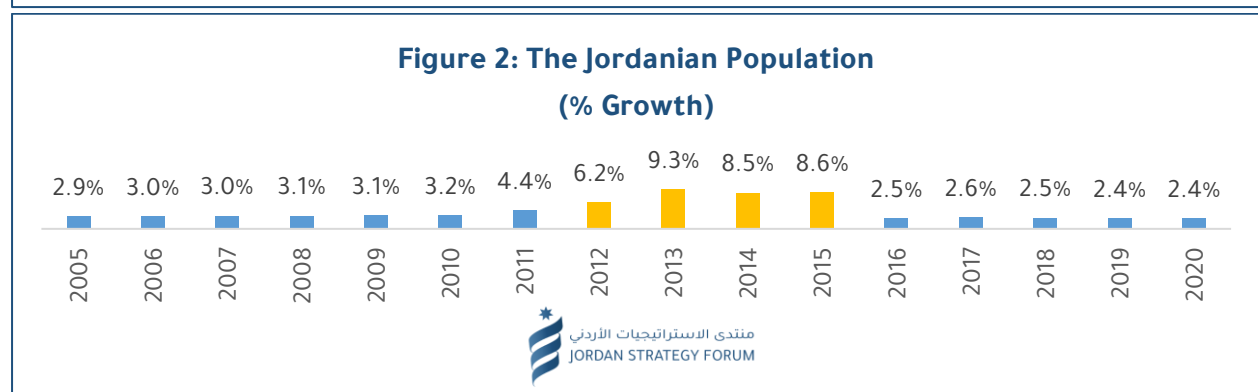
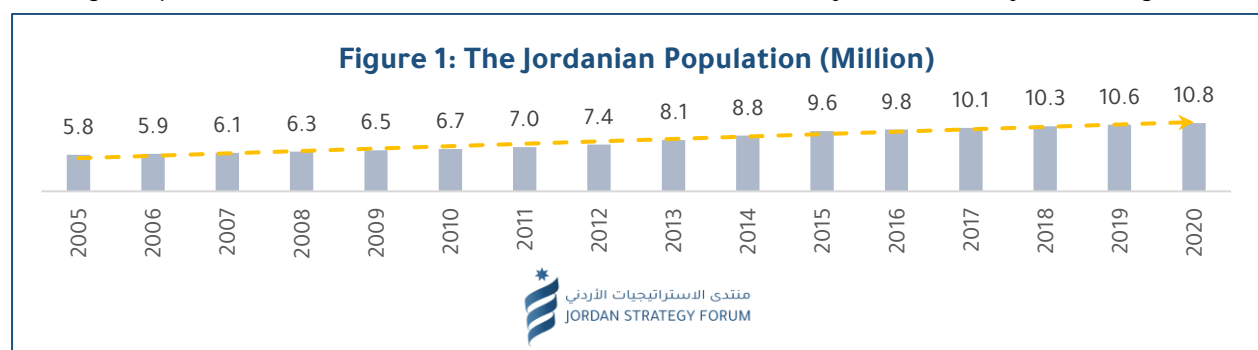
2. Economic Overview:

Before presenting any observations on the urban development sector, it is important to note that there is no specific and internationally agreed upon statistical measure(s) to identify the economic performance of urban development. However, the sector remains of great significance due to its interlinkage with various sectors and its impact on our daily lives.

Moreover, despite the major intersection between transportation and urban development, the Jordan Economic Vision Roadmap covers “Transportation and Logistics” separately. Based on the mentioned above, it is useful to note that the International Standard Industrial Classification (ISIC) lists “Real Estate” and “Construction” as economic activities. Hence, combining construction and real estate activities in this section will be used as a proxy to meet the challenge of data availability and the measurement impediment. Thereby, the progress of “Urban Development” in Jordan is assessed in economic terms.

A. The Population of Jordan:

The Jordanian population has increased from 5.8 million in 2005 to 10.8 million in 2020. Relative to any standard, the Kingdom has experienced high population growth rates. During the period 2012-2015, the unusual increases were mainly due to the Syrian refugees.¹

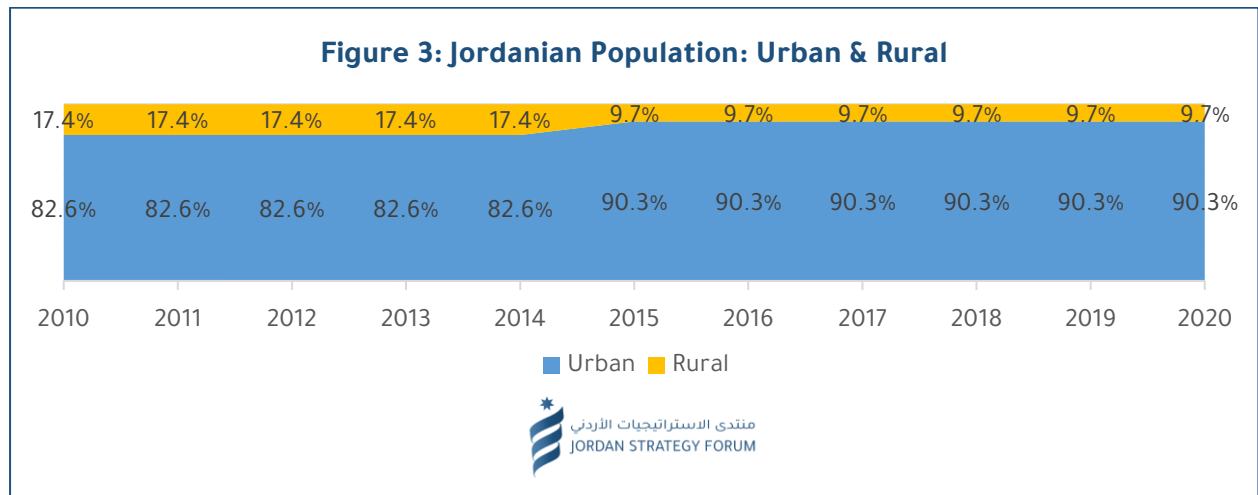


¹Source: Department of Statistics (DoS), Population.

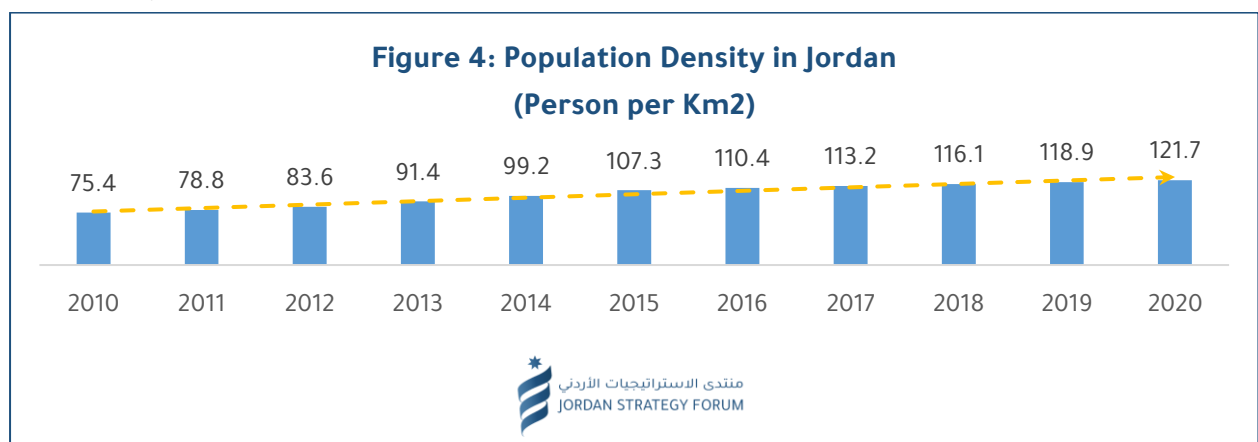
Figure 1: JSF applied a decimal to present the numbers in million.

Figure 2: JSF calculated the percentage change.

1. In 2010, the rural population of Jordan constituted 17.4% of the total population meanwhile the urban population constituted 82.6%. In 2015, Jordan witnessed a sharp decline in the rural population, as the percentage plummeted to 9.7% and the urban population increased to 90.3%. Since then, the percentages remained constant.²

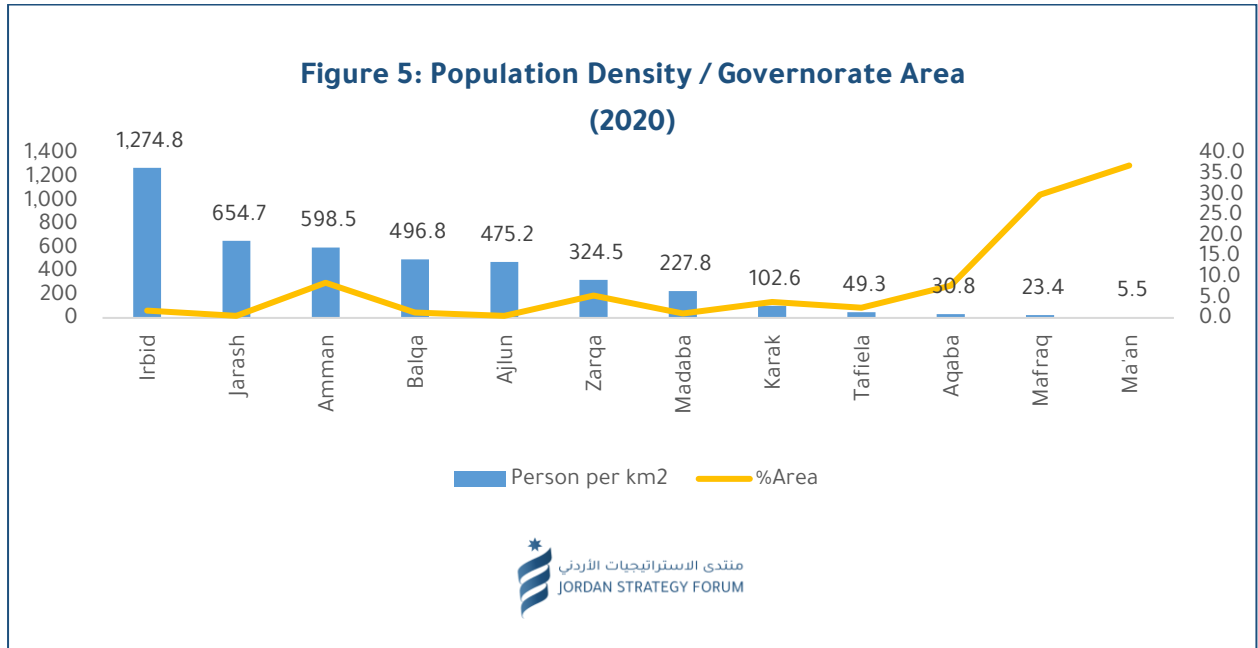


2. The population density in the Kingdom has increased from 75.4 people per Km² to 121.7 people per Km² in 2020. Moreover, a shocking phenomenon emerges when the population density and the area of a governorate is investigated. For example, meanwhile Irbid forms 1.8% of Jordan's total area (88,794 Km²), the population density in the governorate records the highest in the country and amounts for 1,274.8 people per Km². On the other hand, the population density in Ma'an which constitutes 37% of the country's total area records 5.5 people per Km², which is the least among the country.

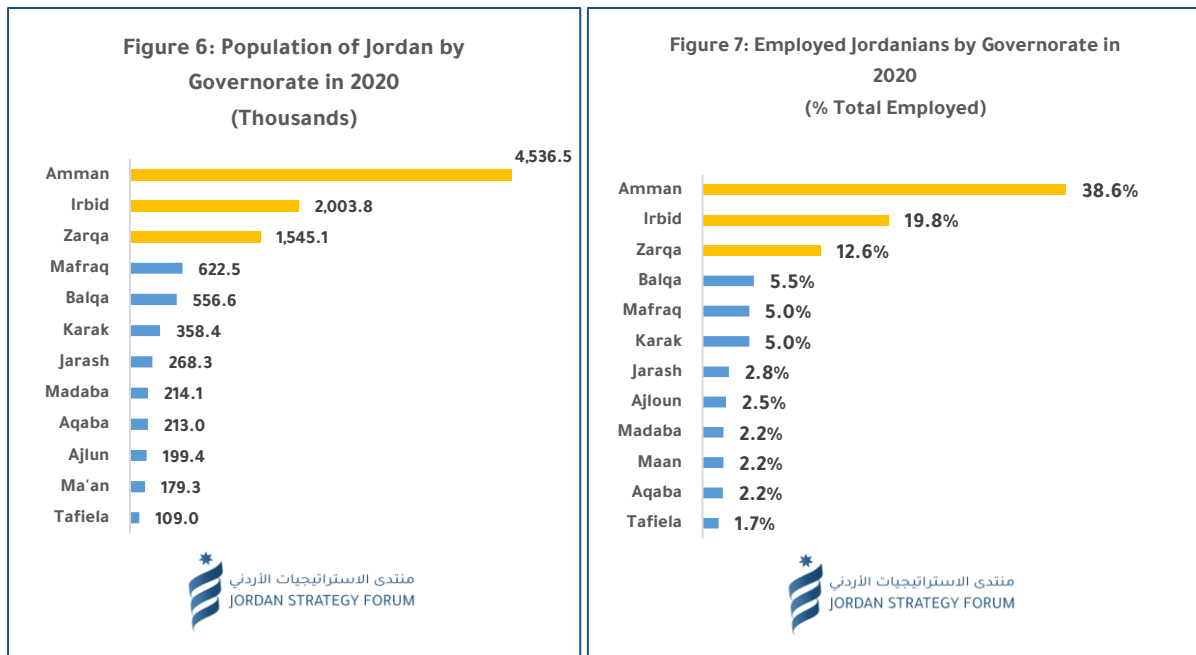


² Source: Department of Statistics (DoS):

Figure 3 - 5: Numbers were extracted from the yearbook "Jordan in Figures".



3. Within the context of the above-mentioned observations, it is also shocking to note that 74.8% of the population in Jordan reside in only three governorates. These governorates are Amman (42.0%), Irbid (18.5%), and Zarqa (14.3%). As one would expect, basic economic sense asserts that the urban sprawl in Jordan is mainly due to the employment level in the mentioned governorates. In more specific terms, the three governorates alone employ 71% of the Jordanian employed population.³



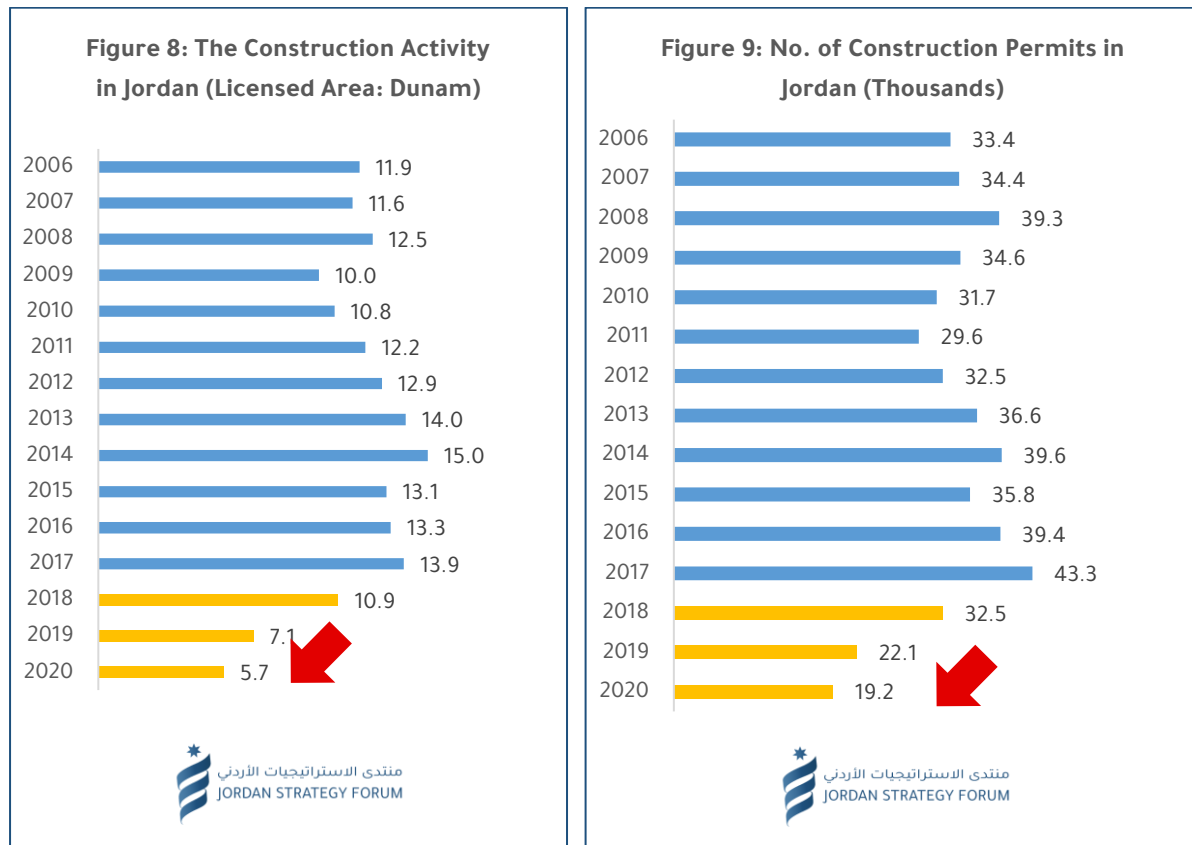
³ Source: Department of Statistics (DoS):

Figure 6: Population, JSF applied a decimal to present numbers in thousands.

Figure 7: Employment and Unemployment, JSF calculated employment per governorate as a percentage of total employed Jordanians.

B. The Business Environment:

1. Notwithstanding the implications the onslaught of COVID-19 had on the construction activity in Jordan, construction was already witnessing a downward trend. Expectedly, the decrease in the number of construction permits in 2017 was followed by a sharp decline of 58.9% in construction activity by 2020.⁴



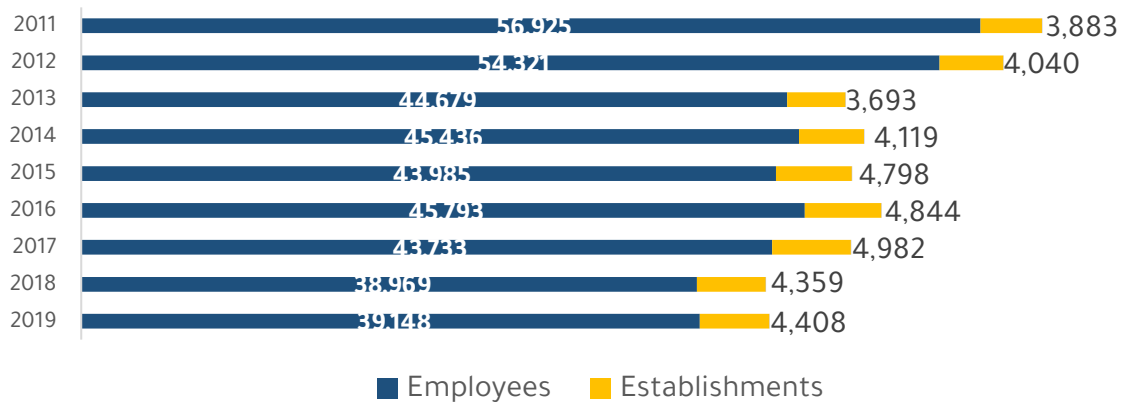
2. In parallel to the increase in the number of construction and real estate establishments from 3,883 in 2011 to 4,408 in 2019, the number of employees in construction and real estate had decreased from 56,925 in 2011 to 39,148 in 2019. Due to mentioned and illustrated above, one can argue that construction and real estate establishments grew only by registration and not by activity.⁵

⁴ Source: The Central Bank of Jordan, Statistical Bulletin, Production, Construction Activity
Figure 8: JSF applied a decimal to convert numbers from Square Meters to Dunams.

Figure 9: JSF applied a decimal to display number of permits in thousands.

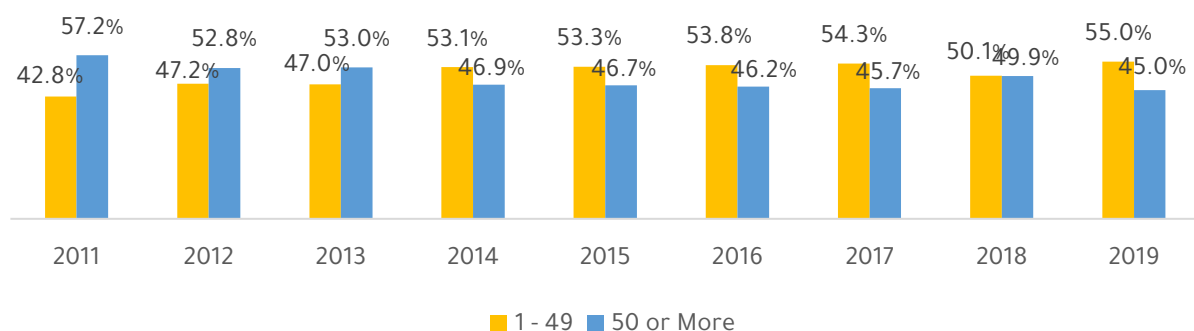
⁵ Source: Department of Statistics (DoS), Employment in Establishment
Figure 10: As mentioned in the introduction, JSF presents a summation of Construction and Real Estate establishments and employment.

**Figure 10: Construction & Real Estate Activities in Jordan
(Employees & Establishments in Public & Private Sectors)**



3. In spite of the decrease in employment in construction and real estate activities, it is observed that the large establishments which employ 50 or more are shrinking in terms of employment. Since 2014, small and medium establishments began outnumbering large establishments in employment, reaching 55% of total employment in construction and real estate in the year 2019.⁶

**Figure 11: Construction & Real Estate Establishments by Size
(Percentage of Employment in Public & Private Sectors)**

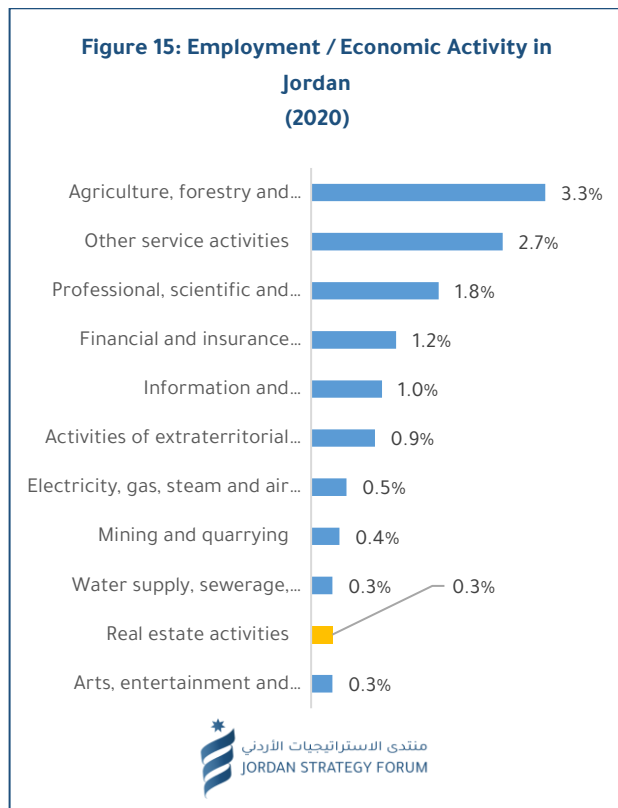
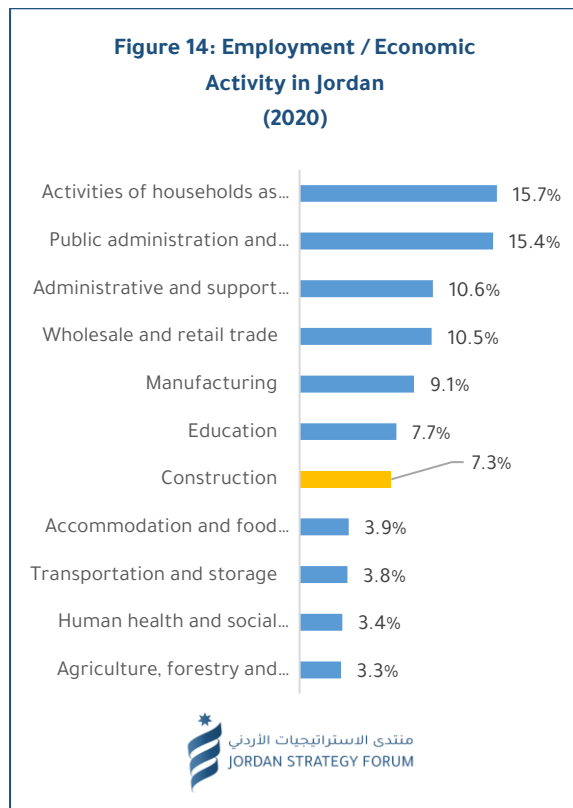


⁶ Source: Department of Statistics (DoS), Employment in Establishment

Figure 11 - 13: JSF classified employment per establishment based on size by merging the establishments from 1 - 49, and 50 - 100 or more. JSF then calculated employment per establishment as a percentage to total employment.

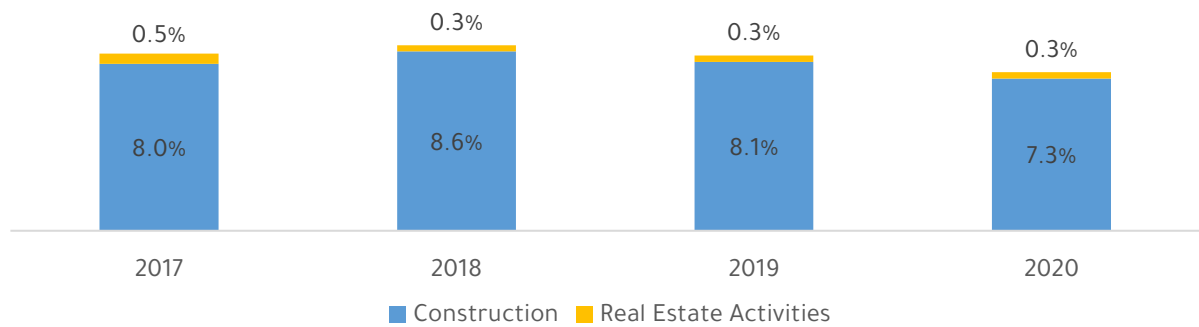


4. Relative to the other sectors in the Jordanian economy, one can argue that the construction and real estate sectors are considered large employers when combined (7.6%). However, it is unfortunate that the level of employment has decreased in both sectors since 2017.⁷



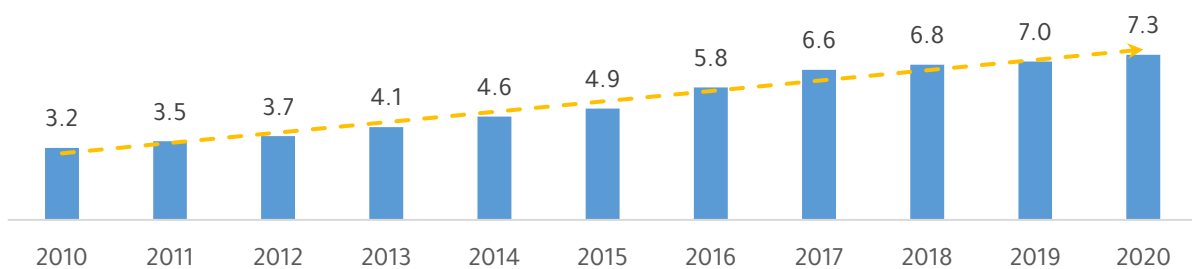
⁷ Source: Department of Statistics (DoS), Employment and Unemployment

Figure 16: Employment in Construction and Real Estate Activities in Jordan



5. Since the year 2010, credit facilities extended to the construction sector have been upward trending and increased by a significant 129% by the year 2020. In fact, the construction sector had always enjoyed high accessibility to finance. The sector's share had never accounted less than 20% of total credit facilities since the past decade. Moreover, the sector is considered the largest recipient of credit facilities in 2020.⁸

Figure 17: Credit Facilities Extended by Banks / Construction Sector (Billion JDs)



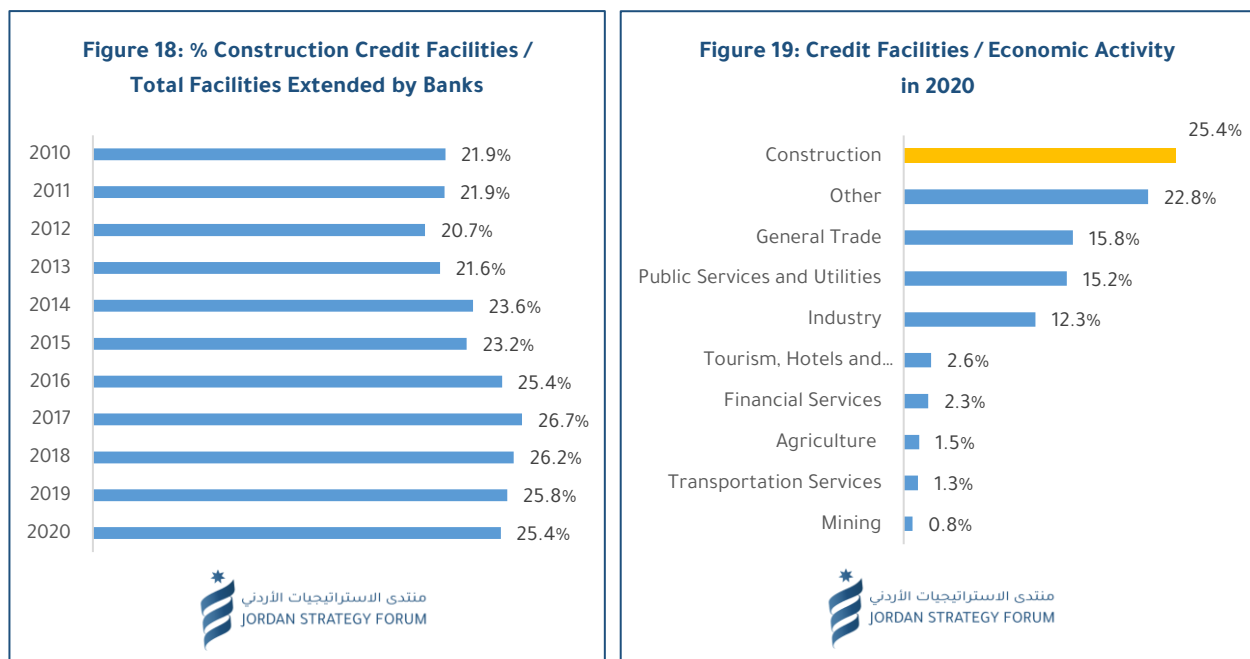
⁸ Source: The Central Bank of Jordan (CBJ), Statistical Bulletin, Money and Banking, Credit Facilities Extended by Banks

Figure 17: JSF applied a decimal to present the numbers in billion.

Figure 18 - 19: JSF calculated the numbers as a percentage of total credit facilities.

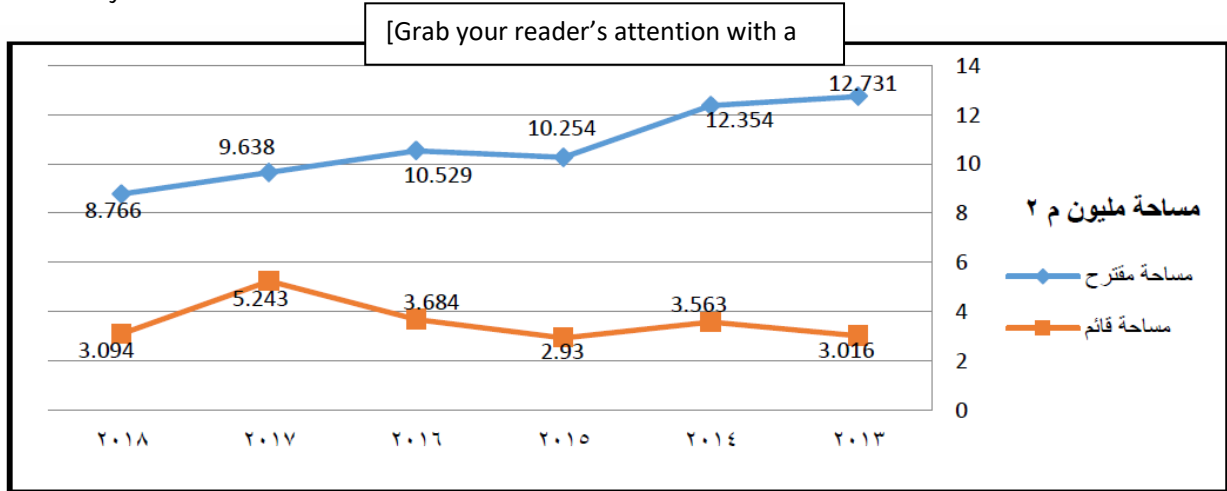
In a Nutshell, although construction is a larger employer than real estate, it is interesting to note that in 2020, construction and real estate contributed by 2.7% and 11.3% of Jordan's GDP respectively. Notwithstanding that both sectors are enablers for other sectors in the Jordanian economy and promote their production, yet, it is a legitimate question to ask why the sector is not witnessing any growth in employment nor by activity while being the largest recipient of credit among all others.⁹

1. Below are two tables from the JEA that can be used as an indicator



⁹ Source: Department of Statistics (DoS), National Accounts, Quarterly Estimates

Whole year 2013-2018:



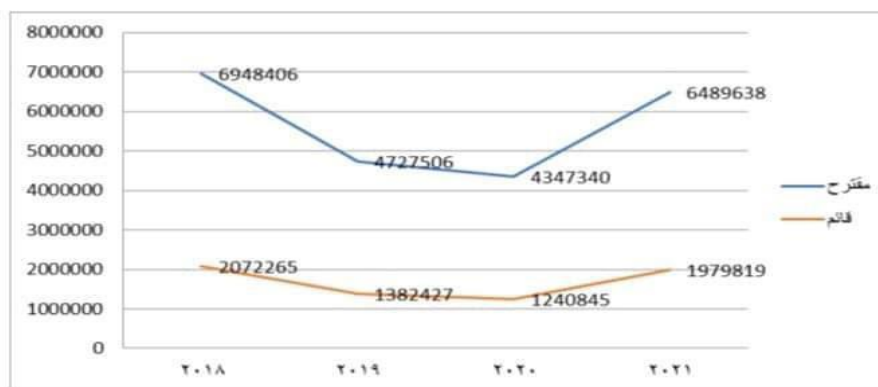
Until end of September (3/4 a year) 2018-2021:

مقارنة مساحة المشاريع المصدقة (ألف متر مربع) إلى

نهاية شهر أيلول للأعوام 2021-2018

دون معاملات إعادة التصديق وإعادة التدقيق

السنة	عدد العقود			المساحة بالآلاف متر مربع			نسبة التغيير
	مقترح	قائم	المجموع	مقترح	قائم	المجموع	
2018	11235	10129	21364	6948406	2072265	9020671	-
2019	9585	8622	18207	4727506	1382427	6109933	-32.27%
2020	9740	8156	17896	4347340	1240845	5588185	-8.54%
2021	14605	13667	28272	6489638	1979819	8469457	51.56%
التغيير	49.95%	67.57%	57.98%	49.28%	59.55%	51.56%	



1. Looking the tables above the drop from 2013 to 2019 is clear and huge, which means that the real-estate development (building) sector has been struggling, which is attributed to the 2008/2009 financial crises followed by the Arab spring and all conflict and instability it brought (Syria, Iraq and Yemen wars)
2. This bleak reality was only exacerbated by the Covid-19 pandemic as shown in the 2020 numbers
3. The 2021 numbers might recover to the pre pandemic numbers of 2018, but still these numbers are very low showing the struggle of the sector
4. The above is from a New Building quantitative point of view, nevertheless from a quality point of view, no real improvement has been noticed other than the proliferation of Solar energy both at a large scale solar farm level and on a private home owner level, however this is currently in limbo due to the oversupply of the solar farm projects and the restrictions imposed on building projects (schools are not allowed to produce more than 20% of their needs using solar), which requires a smarter approach and is also due to the present restrictions imposed on private houses and the new elec. tariff being adopted
5. From an urban, and or community development, during the past 20 years we didn't see any improvement, other than the following:
 - The Amman Metropolitan growth plan, and Urban Envelope Plan and various efforts (2007-2011) some of which have not seen the light and not followed through due to bureaucratic and political challenges
 - The ASEZA various efforts in Aqaba, some of which have seen the light and many that weren't delivered again due to bureaucratic challenges
 - The only thing we saw in the past 5 years was the BRT system in Amman, which is still under development and was delayed by 8-10 years the special economic or development zones that many of them were planned early 2000 and not developed further
6. Until today, we see a sad urban development reality characterized by urban sprawl, consumption of agricultural lands and natural resources, lack of quality, public open green space, mobility, connectivity, accessibility and suitability. A reality that can be attributed to the
 - Grip of the commercial private housing sector (urban development) led by immediate financial gain on expense of quality, safety, suitability and landscape
 - Traditional models of land ownership and subdivision that impede proper master planning
 - The lack of proper regulations, regulatory frameworks, master planning the housing stock that is not corresponding with the demand and the adaptive reuse to provide affordable solutions
7. The Covid-19 pandemic and its lockdowns has exposed the deficiencies and shortcomings of our built environment, that is anything but sustainable and resilient,

and not suited for 21st century. We can only hope that the this has created some sort of shift in the minds of both the public and of those in charge, a shift that will instigate urgent action in addressing these challenges.

3. Stakeholders' Mapping for the Sector: Linkages & Overlaps

Urban Development		
#	Overlaps (sectors where there may be certain conflicts)	Interlinkages (sectors with which there can be synergies)
1	Energy & Climate Change.	Transportation.
2	Water & Environment.	Energy & Climate Change.
3	Agriculture and Food Security.	Water & Environment.
4	Transportation.	ICT.
5	-	Tourism.

4. SWOT Analysis

In terms of the strengths, weaknesses, opportunities, and threats of the Urban Development sector in Jordan, the work stream members see the followings:

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Human Capital 2. Weather/Climate and Natural Context 3. Heritage and Culture 4. Newly Introduced Services and Technologies in Public Transportation 	<ol style="list-style-type: none"> 1. Strategies and legislations 2. Development and Planning 3. Infrastructure and Services 4. Expenditures 5. Environment
Opportunities	Threats
<ol style="list-style-type: none"> 1. Energy, Sustainability and "Greenfication" 2. Institutionalization of Planning-Community Involvement in Decision Making 3. Integration with the International Community 4. Tech-Oriented Urban Development 5. Densification and Intensification 	<ol style="list-style-type: none"> 1. Water, Environment and Food Security 2. Demographic distortions 3. Economics 4. Transportation 5. Governance and Institutional Arrangements

5. Strategic Objectives

Strategic Objectives
1. Institutionalization of the Planning Process
2. Upgraded Livability and Infrastructure in Cities
3. Mobility
4. Inclusion of Local Communities and Human Centered Design:
5. Energy, Environment and Climate Change

6. Initiatives (projects)

Objective 1: Institutionalization of the Planning Process

First Initiative: Updating of the Legal Planning Framework for Cities and Villages

Short Description: Many legal instruments shape the Jordanian planning framework. Some laws and regulations are being established and/or are being updated (ex. Municipalities and Decentralization Law of 2021/2022). This initiative addresses the need to revise the current legal framework and update it to match the pace and patterns of urbanization in Jordan.

Expected Outcome:

1. Assessment Study of Law No. 79 for year 1966
2. Amendment of Law No. 79 for year 1966
3. Adoption of the Jordan National Urban Policies

Second Initiative: Creation of a think tank

Short Description: Setting up an Urban Think Tank: Lack of coordination between government agencies, studies simply shelved, and no obligation to abide by master plans across shifting administrations is an issue that undermines healthy urban growth. The Urban Think Tank will be the "keeper" of urban studies, research and plans across Jordan and its role in the development process should be institutionalized.

Expected Outcome:

- A steering advisory committee
- Guardian/enabler of masterplans and policies
- Help in building capacities of local and central administrations
- Enable local and central administrations towards decentralization. (Institutionalizing the planning process)
- Regulating the planning governance (too many planning bodies) to be governed by one strategic urban planning policy, strategy, and vision

Third Initiative: Approval Procedures

Short Description: A national strategic growth plan (Transport, Environmental, Economic, and Spatial) to direct various approvals from authorities on the planning process (land use, infrastructure, and transportation) should be obtained through one authority.

Expected Outcome:

- Ensuring coordinated plans/designs/execution
- Facilitating cost sharing

- Bypassing of bureaucratic lengthy procedures

Objective 2: Upgraded Livability and Infrastructure in Cities

First Initiative: Focusing on developing green, public open spaces

Short Description: The improvement of public open spaces (green infrastructure networks) in the cities help in improving the living conditions of disadvantaged communities

Expected Outcome:

- Social benefits in building sense of ownership through community engagement and providing spaces for interaction and better psychological and physical health benefits
- Contribution in food production through urban farming and productive planting in public lands or private initiatives
- Increase pedestrianization and ease accessibility and mobility in the neighborhoods.
- Environmental benefits and adaptation to climate change

Second Initiative: Energy transition and reduction of emissions in urban areas

Short Description: A strategy to be developed at a national level and implemented at local levels.

Expected Outcome: Road map that guides further detailed studies and activities with the end goal of reducing emissions to the maximum and yielding a better livelihood.

Third Initiative: Developing and implementing city digitization transformation plans for urban areas including digital infrastructure and services.

Short Description: Digital transformation to improve services and customer experience by developing a strategy and detailed road map including processes re-engineering, capacity building, supporting software development and public awareness.

Expected Outcome: Better services and less cost.

Fourth Initiative: Formation of an Urban Observatory for cities to collect and analyze city data from all sources including deploying remote sensing to improve services and apply new ones and to face all types of shocks and stresses cities might face and to make data available for researchers' planners and investors.

Short Description: Collecting data and analyzing it will support data driven decision making which is very important to guide decisions and align it with goals. Data will also help investors and support economic development.

Expected Outcome: Efficient decision-making, improve city planning, face shocks and stresses with real time information and improve economic development.

Fifth Initiative: Developing a rainwater drainage long-term comprehensive master plan including related projects implementation road map (including green blue infrastructure) to control and avoid flood risks and exploit rainwater for the next 50 years.

Short Description: Cities in Jordan are always facing floods which is risking people life's, causing large economic losses and environmental pollution by mixing rainwater with sewage water. Cities are spending millions in water drainage infrastructure every year without any studies or long-term planning to overcome this phenomenon which becoming acute due to climate change.

Expected Outcome: Mitigate flood risks through proper planning directing capital spending in flood structures avoiding risking people's lives, economic loss, rainwater pollution and pressure on the sewage system.

Sixth Initiative: National urban and economic strategic growth plan

Short Description: Provision of a comprehensive and integrated framework which serves as basis for developing a priority program for implementation of projects (Land Use, Transport, Infrastructure networks, Environmental, etc.). The Master Plan should be multi-sectorial, in a way to coordinate the supply of services with development decisions and demand.

Expected Outcome: Organized and coordinated approach in planning land uses and services provision, including new residential developments, public transport, infrastructure, tourism, and other investments.

Objective 3: Mobility

First Initiative: Increase connectedness in and between Urban Areas

Short Description: Create public transport in and between the cities (inter and intra-city), contributing to economic growth (local/regional/global).

Expected Outcome:

- Increase city inclusiveness through improved accessibility and mobility to vulnerable classes in the society.
- Connect people to existing urban centers and tourism sites as a main driving force to direct growth away from the capital city.
- Facilitate access to and between remote areas, which translates in a more balanced National development.
- Provide further investment opportunities and job creation in governorates.

Objective 4: Inclusion of Local Communities and Human Centered Design

First Initiative: Activate underused lands in urban areas to promote productive uses and to enhance public and social spheres.

Short Description: The aim of this initiative is to promote the use of passive spaces within the urban boundaries in more productive and fruitful manners depending on location as follows: (weather in terms of adding social spaces or urban agriculture or even encourage their development.

Expected Outcome:

- Develop well-serviced locations within urban centers.
- Allow municipalities access to land for social and public spaces within the city.
- Engage communities within neighborhoods to activate lands.
- Utilize CSR opportunities in more inclusive and beneficial projects.
- Promote the uses of lands towards resilience with urban agriculture.

Second Initiative: Rethinking Housing Focusing on affordability, and based on city plans that direct housing and city growth

Short Description: This initiative aims at consolidating between demand and stock in the housing market. There is acute indiscrepancies between housing needs of more affordable nature and the profit-driven supply. The initiative calls for the adaptive reuse and upgrading of existing areas to improve livability. In order to achieve these goals the initiative discusses the restructuring of the housing sector to ensure the lead of city plans to define housing needs and growth directions, as well as the provision of affordable housing instead of profit-driven sprawl.

Expected Outcome:

- Direct housing towards affordability not only in terms of prices but also in terms of access to services.
- Promote housing projects around existing established services within the urban center; utilizing opportunities for adaptive reuse, and opportunities for intensification.
- Direct growth around growth corridors.
- Minimize need for burdening the municipalities and budgets with providing for continuous sprawl.

Objective 5: Energy, Environment and Climate Change

First Initiative: Environment Protection through Adaptation, Mitigation, and Increasing Resilience; revisiting Recycling on All levels and engaging the public.

Short Description: Develop strategies for;

- Waste management: A strategy that tackles waste disposal and management and recycling of materials (i.e., Construction Waste, material recycling).
- Promote recycling across the country through energy-efficient practices/methods.

Expected Outcome:

- Healthier, cleaner, and improved urban living.
- Increase social engagement, especially among youth, and create job opportunities as well.

Second Initiative: Revisit the Green Building Guideline and Rating System and create a comprehensive best in class standards for green building and sustainability within Jordanian building codes (turn the Guidelines to Codes).

Short Description: Since green buildings have a profound impact on our natural environment, economy, health and productivity, the approach of the turning the green building guideline to Codes will have a large impact on the environment in six categories that provide the foundation for green building design by enforcing minimum green building codes.

Expected Outcome:

- Less pollution.
- Less energy and water consumption.
- Sustainable and comfortable structures.
- Long-term more efficient and sustainable buildings.
- Reducing emissions.
- Reducing Jordan's energy consumption in buildings, and ultimately decreasing the burden of the energy on the economy.
- Enforcement of the codes.

7. General Recommendations

The following points were recommended by the committee:

1. Jordan has diverse contexts ranging from metropolitan structures, major urban development, rural areas and scattered villages which need to be taken into consideration in the assessment and recommendations.
2. Initiatives should also take into consideration the upgrading of existing development areas /sectors in addition to the planning for new growth and development. Address the new development/growth but also the upgrading existing underdeveloped sectors/areas.
3. Regulatory reform although it is a very complicated and long-term process yet it is pivotal for any development and drive for change and it could be worked on in parallel to smaller and shorter terms initiatives yet it is highly important to upgrade the outdated regulations to accommodate the new development trends/approaches and accommodate the different typologies not covered by the existing laws.
4. Some of the initiatives can be broken down into several initiatives once the proper assessment is conducted and can facilitate their implementation and reaching the goals.
5. It is very important to integrate the different sectors initiatives with the urban development as most probably there will be overlaps and definitely intersections that can even help their development further.
6. Concentration on cross sectoral initiatives and synergies, and these will stand a greater chance of success.
7. The initiatives proposed are to be considered as a first step for the road map. The need for elaborate study of each of the suggested initiatives to better assess and then formulate solutions.
8. Concentration on public participation, local governance and empowerment.
9. The importance of integrated and sustainable solutions/initiatives.

10. Consider the drivers for development that can also play a pivotal role in upgrading existing centers, and create specialization depending on the assets of the various localities in Jordan.
11. The adoption of the various principles developed by the committee in all development governance frameworks these include:
 - Resilience.
 - Integration of design and governance.
 - Climate change adaptation.
 - Public participation and empowerment,
 - Digitization.
 - Protection and preservation of ecosystems.
 - Connectedness.
 - Adaptability and flexibility.
 - Sustainability.
 - Open, public and greenspace.
 - Inclusivity.
 - Safety.
 - Adaptive reuse.

8. Annex

Annex1:

Strengths:

1. Human Capital

- Qualified Engineers.
 1. One in every 40 Jordanians is an engineer, making Jordan the country with the most engineers per capita globally.
 2. Abundance of proficient local contractors and existence of unified construction practices in Jordan.

2. Weather/Climate and Natural Context

- Ideal weather
 1. Jordan's weather truly consists of 4 seasons: autumn, winter, spring, and summer. There are three distinct climatic zones; the Jordan valley, Mountain Heights Plateau, and the Desert or Badia region.
- Diverse Natural Context
 1. The Dead Sea is the lowest point on the earth, Wadi Rum, the Jordan valley, Mountain Heights Plateau, and the Desert all in one country.
 2. Natural urban poles in North, South and Center with unique identifiers.
 3. Green Infrastructure: Provision of spaces that accommodate social needs, climate effects, environmental restoration, etc.

3. Heritage and Culture

- Rich, unique heritage, history, and cohesiveness.
 1. Due to its location on historic trade routes in the Middle East, Jordan has been home to a mix of cultures and religions all the time. The oldest evidence of hominid habitation in Jordan dates back at least 200,000 years. There are five World Heritage Sites: Petra, Qusayr Amra, M. Umm al-Rasas, Wadi Rum, and Jordan River. 34 different biblical sites. And a long history list occupied the ancient land.
 2. Family, both immediate and extended, plays a central role in Jordanian culture. Islamic society tradition emphasizes the importance of community over the individual, and the family is the building block of community, characterized by a hospitable and generous culture.
 3. Aqaba as a port city, Northern historical cities. Lonely Planet Jordan was ranked among the top 10 touristic destinations in the world for 2019.

4. Newly Introduced Services and Technologies in Public Transportation

- Provision of a reliable and adequate transportation system along the most dense movement routes as per the resident's needs (BRT).
- During the next years, new transportation systems will be available.
- Implemented in Amman, and other plans to be repurposed for other cities in Jordan.

Weaknesses:

1. Strategies and legislations

- A. Absence of a National Urban Policy/ Strategy for Spatial Planning, zoning and subdivision plans are created and approved in the absence of benchmarking against approved and updated national strategies for spatial planning and regional plans.
- B. Lack of continuity in urban policies and growth strategies.
- C. Unregulated small or individual businesses (coasters buses, kiosks) need an upgrade. Past regulated and or enforced attempts worked against the people.
- D. Lack of accountability and enforcement.
- E. Lack of complementarity among bylaws and regulations, as well as a lack of timely updates.
- F. Piecemeal decision-making and application of special regulations as per personal assessments.
- G. Lack of consistency and continuity leads to a lack of predictability.
- H. The disconnection between various official regulators and governmental organizations (operating in silo).
- I. Absence of a national transport plan.

2. Development and Planning

- A. Continuation of minimal development in various Jordanian cities and not attracting residents, thus continuous migration to Amman.
- B. Construction practices are not sustainable, housing affordability is challenging.
- C. Unregulated developments lead by the appetite of the investors /private developers.
- D. Planning chaos in cities.
- E. Fragmented municipal land development due to fragmented land ownership and expropriation costs.
- F. No development outside the main cities, nothing in the rural areas.
- G. Ill-planned cities due to sudden jumps in population/influx of refugees/rural-to-urban migration.

3. Infrastructure and Services

- A. Land-use distribution is not linked to road networks and accessibility options
- B. Urban sprawl
 - Most cities grew with little holistic approach to make them livable and organized. Expansion was haphazard and mostly based on availability of cheaper plots of land. In essence, in most cases city resources were spent to follow growth inspired by the citizens' needs and choice of location.
- C. Inadequate infrastructure (transportation, sewage, water, drainage)
- D. Municipalities' resources, old infrastructure, mobility systems.
- E. Water
 - Decrease in rainfall and low renewable water resources causing depletion of water resources and desertification.
 - "Flooding of water resulting in financial loss for businesses and residents of the affected areas.
 - Flooding of sewage system due to its connection with the Storm water in flash floods"
- F. Transport
 - Extensive delay in achieving transport projects.
 - Lack of supportive reliable and adequate transportation systems within neighborhoods that connect with the BRT.
- G. Lack of clear hierarchy in transportation systems and total absence of some modes i.e., rail.
- H. Neighborhood services vary, from well-serviced units to under serviced units. Inequitable access to urban services and amenities.

4. Expenditures

- A. Urban development is not a priority in terms of budgeting.
- B. Lack of proportionate spending on transportation systems.

5. Environment

- A. Low adaptation of new construction (and green) technologies.
- B. Inefficiency of grey infrastructure i.e., storm water drainage, transportation, services, etc.

Opportunities:

1. Energy, Sustainability and “Greenification”

- A. Innovation in renewable energy:
 - A. Supporting Jordan to adhere to environmental standards, thereby accentuating its role as a center for green services and industries.
 - B. Energy savings from clean sources with low LCOE can be used to countries capacity to accommodate new developments.
- B. Efficient Grey Infrastructure Nature based Supportive System:
 - Reducing risks of floods.
 - Reducing urban heat Island effect.
- C. Introduce urban agricultural practices (for example, urban acupuncture projects):
 - Enables self-sufficiency and resilience.
- D. Enlarging Green Spaces and Parks:
 - Indirect impacts on productivity, mental health, and well-being.
 - Divided by 4.32 million people, residents of Amman enjoy 2.5 square meters of park area per capita, which is 37.5 square meters short of the US standard.

2. Institutionalization of Planning- Community Involvement in Decision Making

- A. Reducing conflictive decision with the change of authority.
- B. Communication and open discussions with civic and official city leaders diminish the number of iterations in the planning and design process.
- C. Clearly identify the role of central government and local councils, their dependencies, linkages, and interdependencies are expected to increase efficiency of execution.

3. Integration with the International Community

- A. Crossroads linking Saudi Arabia (Neom and Alula in particular, to be integrated with Aqaba), Europe, Palestine and Iraq are opportunities for interdependence, where urban development can be designed/planned to lay the ground for land and maritime trade.

4. Tech-Oriented Urban Development

- A. Integration of new building and construction technologies:
 - Cost efficient and adaptable built urban fabric.
 - Improve infrastructure of the urban areas with less cost, low-cost housing, and better quality.
- B. Global technological booming and smart cities systems applications:

- Improve services, interconnectedness, environment, health, safety, culture, entertainment, commerce.
- Improve and upgrade transportation systems which will enhance economic, environmental, and social sustainability.

5. **Densification and Intensification**

A. Specialization of services and potentials in various cities in Jordan:

- Improvement of people's accessibility to work, services, spaces and necessities encourages people to live closer to services and reduces the urban sprawl by developing the available empty plots and densification within the city planning standards.
- Attracts specialized residents and flourishing/improvement of living conditions and services in these areas.

B. Strategic Smart Growth:

- A chance to introduce new affordable housing schemes and sustainable housing typologies in underserved areas that can be later a self-sufficient "sub-municipality".
- Decrease in congestion within main cities.
- Allows land and space in main cities for urban centers, thereby increasing FDI and tourism activity.

Threats:

1. **Water, Environment and Food Security**

- A. Agricultural land being eaten up and destroyed by urban sprawl, thereby impacting food security:
 - Prevents urban resilience through blocking the move towards self-sufficient food and farming practices.
 - Enables further dependence on imported food items.
 - Increasing reliance on foreign supply chains and vulnerability to hikes in global pricing of goods.
- B. Increase of land deforestation:
 - Leads to development of major urban centers along a linear line West of the Kingdom.
- C. Flooding of water resulting in financial loss for businesses and residents of the affected areas.

- Pollution of water resources due to mixture of storm water system with sewage system.

D. Climate change and water scarcity:

- Rising Pollution.
- Desertification.
- Threat of flash floods.
- Heat and dust waves.

2. Demographic distortions

- A. Unstable ever changing neighborhood.
- B. More than half the population live in Amman and are expected to increase if development trends do not change and if there were no equity in development for the other parts of Jordan.
- C. Rapid unorganized growth in urbanization is Erasing historic and cultural urban fabric, and old "texture" of the city.

3. Economics

- A. Unjustified Increasing land prices:
 - Led to increased cost of development and real estate, a rise in housing prices.
 - Dedicating lands for public realms is becoming very expensive. As a result, the bulk of the investment goes to the land price instead of a well-designed quality building.
- B. Global economic crises and the increase of products and amenities cost
- C. Pouring investments only in Amman
- D. Taxation Structure:
 - Without an incentive program and tax reform, urban growth may slow and suffer from over pricing, leading to decreased investment.
- E. Unemployment:
 - Impacts trends of mobility, as well as usage of facilities and services.

4. Transportation

- A. Oil/Energy Prices:
 - Increased running cost for both private and public transportation will impact the mobility of people hence affect the growth of urban settlements.
- B. Continuous shortage of a viable public transport network is expected to decrease livability and increase unhealthy competition between urban communities.
- C.

5. Governance and Institutional Arrangements

- A. Low Public trust in the government:
 - Leads to citizen disgruntle, thereby either introduces obstacles in development and/or possibly vandalism.
- B. Continuous changes in regulatory bodies:
 - Lack of legal and binding document to be followed across cabinets/governments.
 - Duplication of work under different names, methodologies.
 - Cities are spending time and effort in assessing the urban growth via different approaches and coming up with similar recommendations that end up being shelved and not formally utilized.
- C. Lack of legal and institutional coverage (i.e., roles and responsibilities are allocated for multiple regulatory bodies, leading to delays, confusion, and overlaps).
- D. Disruption and delay in public projects.

Based on the results of the SWOT analysis, the work stream members envisage the following five objectives and goals for each:

1. Institutionalization of the Planning Process:

- Creation/implementation of planning tools of existing/ new studies and masterplans that are legally binding (i.e., cross-governmental).
- Synthesize and implement current plans.
- Decentralization of development opportunities and concentrate on marginalized cities/ Governorates.
- Comprehensive planning and governance institutional setup to monitor and control implementation.

2. Upgraded Livability and Infrastructure in Cities:

- Strategic Densification (especially Amman where 40% of land is unused) and intensification existing urban fabric. (i.e., densification around transport corridors as start).
- Increase self-sufficiency and resilience of neighborhoods.
- Expand livability of main cities in Jordan.
- Improving Infrastructure and Urban mobility.
- Transforming urban areas into ICT smart city.

3. Mobility:

- Connected cities and rural communities.

- Improving public transportation networks at all levels (inter-city and intra-city connections).

4. Inclusion of Local Communities and Human Centered Design:

- Natural Metropolitan growth and expansion strategies in cities by involving relevant stakeholders.
- Increase housing affordability while introducing sustainable construction practices.
- Public participation targeting youth
- Innovation center for the built environment.

5. Energy, Environment and Climate Change:

- City resilience towards climate change (Heat and flash floods)
- Applying green building principals
- Upgrade infrastructure (draining, water, sewage)

Annex 2:

Objective 1: Institutionalization of the Planning Process

First Initiative:

Updating of the Legal Planning Framework for Cities and Villages

Type: Regulatory Reform

Short Description: Many legal instruments shape the Jordanian planning framework. Some laws and regulations are being established and/or are being updated (ex. Municipalities and Decentralization Law of 2021/2022). This initiative addresses the need to revise the current legal framework and update it to match the pace and patterns of urbanization in Jordan.

Objective: Streamline the planning process for efficiency

Three aspects of the planning process underlie this initiative:

1. Comprehensive revision and update of the Law No. 79 for year 1966

قانون تنظيم المدن والقرى والأبنية رقم (79) لسنة 1966

Criteria for revision shall include:

- **Identify the aspects in which the law has been functioning:** which clauses have been guiding city planning and are being implemented.
- **Identify the aspects in which the law has been malfunctioning:** which clauses have proven challenging, or impossible to be implemented.
- **Identify the aspects with no legal covering:** acquire for modern day challenges for example, climate and resilience planning for flooding, pandemics, etc.)
- **Identify how law integrates with other relevant laws:** for instance, land-related laws, expropriation law, etc.

2. Pursue the completion and adoption of the Jordan National Urban Policies

The policy is currently being prepared by UN-Habitat with wide stakeholder consultations. In addition to adopting the policy holistically, specific thematic policies need to be pursued: (a) **housing policies:** the recommendations of the Mainstreaming Housing into Jordan's National Urban Policy Thematic Guide, and (b) **local economic development policies:** the recommendations of the Mainstreaming Local Economic Development into Jordan's National Urban Policy Thematic Guide.

3. Establish a legal instrument to introduce participatory planning through creation of local community boards.

The boards shall be divided across municipal districts.

- **Determine the suitable legislative framework** for the legal instrument
- **Pilot roll-out of community boards** in select districts located in 3 municipalities

Expected Outcome:

1. Assessment Study of Law No. 79 for year 1966
2. Amendment of Law No. 79 for year 1966
3. Adoption of the Jordan National Urban Policies

Initiative Owner: Multi governmental and municipal initiative: MoLA, GAM, Department of Lands and Surveying, etc.

Enablers: GAM, Department of Lands and Surveying

Private Sector's Role in Implementation: Involvement in stakeholder discussions

Expected Duration: 1 year

Key Performance Indicators (KPI's):

1. Assignment of entity and team to oversee law amendment
 2. Development of drafts
 3. Assignment of formal process for adoption of the Jordan National Urban Policies
-

Second Initiative:

Creation of a think tank

Type: Public-Private Partnership (PPP)

Short Description: Setting up an Urban Think Tank: Lack of coordination between government agencies, studies simply shelved, and no obligation to abide by master plans across shifting administrations is an issue that undermines healthy urban growth. The Urban Think Tank will be the "keeper" of urban studies, research and plans across Jordan and its role in the development process should be institutionalized.

Expected Outcome:

- A steering advisory committee
- Guardian/enabler of masterplans and policies
- Help in building capacities of local and central administrations
- Enable local and central administrations towards decentralization. (Institutionalizing the planning process)
- Regulating the planning governance (too many planning bodies) to be governed by one strategic urban planning policy, strategy, and vision

Initiative Owner: Prime Ministry

Enablers: Ministry of Local Administration (MOLA), Greater Amman Municipality (GAM), Special zones

Private Sector's Role in Implementation: Contribution in knowledge exchange and capacity development of local administrations

Expected Duration: Continuous

Success Factors:

- Independence of this think tank
- Updating of laws and regulations
- Authority (Regulatory?): Partnership with limited stake?

Key Performance Indicators (KPI's): Institutionalization and stability of the planning process

Dependencies: MOLA, Jordan Development Zones, GAM

Past Attempts: Amman Institute for Urban Development

Reasons / Root Cause(s) for Lack of Success: Previous approaches were addressing the need, but the solutions were not thoroughly thought in terms of legality, regulatory, authority, coordination and management.

How will this Initiative attract Foreign Direct Investment (FDI) & Promote Investment?

It will not be a direct effect, but when decisions are well studied, coordinated and managed, investors will be attracted to invest in a secure, managed and clearly defined areas and localities.

Third Initiative:

Approval Procedures

Type: Regulatory Reform

Short Description: A national strategic growth plan (Transport, Environmental, Economic, Spatial) to direct various approvals from authorities on the planning process (land use, infrastructure, transportation) should be obtained through one authority

Expected Outcome:

- Ensuring coordinated plans/designs/execution
- Facilitating cost sharing
- Bypassing of bureaucratic lengthy procedures

Initiative Owner: Municipal bodies

Enablers: All authorities/Ministries owning utilities, property rights, decisions.

Private Sector's Role in Implementation: Not relevant

Expected Duration: Immediately for 6 months to 1 year

Estimated Budget: Nominal

Success Factors: Consultation with and involvement of various stakeholders

Key Performance Indicators (KPI's): Number of approvals per project and ease (time) of approvals

Dependencies: Initiative dealing with legal and institutional aspects

Past Attempts: No records

Reasons / Root Cause(s) for Lack of Success: Not applicable

How will this Initiative attract Foreign Direct Investment (FDI) & Promote Investment?

Investors would feel much assured when knowing that projects approval procedures are in place and well implemented, which leads to improved quality.

Objective 2: Upgraded Livability and Infrastructure in Cities

First Initiative:

Focusing on developing green, public open spaces

Type: Regulatory reform, public awareness, CSR

Short Description: The improvement of public open spaces (green infrastructure networks) in the cities help in improving the living conditions of disadvantaged communities by:

- Providing public spaces that contribute to the well being
- Improving the Ecosystem
- Supporting the inefficient existing infrastructures
- improving accessibility to services and public transportation
- Reversing the role of the street as places of human interaction and urban dynamics rather than car access

Cities in Jordan suffers from great shortage of green and open areas. According to WHO standards, 9 m² of green area per capita is required in cities whereas green areas in Amman are below 3 m² per capita and less than 1 m² in Zarqa for example.

Sidewalks are also considered as public open areas; walking is a sustainable mode of transportation and because of the poor quality of the sidewalks very small percentage of trips are by walking (in Amman only 24% walking trips out of the total number of trips which is very low compared to other cities worldwide)

Cities in Jordan are always facing floods that effects people's lives, causing large economic losses, and mixing clean water with sewage water. Cities do not have enough studies and planning to come over the risks of floods, millions are spent every year without any studies to come over this phenomenon which becoming sever due to flash floods facing due to climate change.

These developed public spaces can also function to absorb some of the rainwater and reduce the runoff the results in flooding. There are studies that have defined potential areas in Amman that can reduce the flash floods and provide functional open spaces for the communities.

Expected Outcome:

- Social benefits in building sense of ownership through community engagement and providing spaces for interaction and better psychological and physical health benefits

- Contribution in food production through urban farming and productive planting in public lands or private initiatives
- Increase pedestrianization and ease accessibility and mobility in the neighborhoods.
- Environmental benefits and adaptation to climate change

Initiative Owner: Ministry of Local Administration (MOLA), and Greater Amman Municipality (GAM)

Enablers: Ministry of Environment (MoEnv), and Ministry of Public Works and Housing (MPWH)

Private Sector's Role in Implementation:

- Funding
- Design
- Capacity development
- Implementations
- CSR

Expected Duration: Continuous as it needs to keep up with the city and population growth

Success Factors:

- Public space design standards and regulations/guidelines
- Inclusion of Local Communities and Human Centered Design
- Upgraded Livability and Infrastructure in Cities
- Building on existing works that have already been finalized
- updating the outdated regulations that contribute to implementation of most recent plans and policies
- Creation of a network of public spaces from various typologies

Key Performance Indicators (KPI's):

- % of green public spaces in the Jordanian cities
- Upgraded Livability and Infrastructure in Cities

Dependencies: MOLA, GAM MoEnv.

Past Attempts:

- Masterplans: Amman and other major cities
- New by-laws
- National Urban policy/ UN HABITAT
- Climate action plans, Green climate action plans, city resilience, etc.

Reasons / Root Cause(s) for Lack of Success: Lack of funding to provide and utilize public spaces, and no efforts to carry the plans and policies to the legislative level and stopping at the level of completing the work, jumping to donor opportunities/studies that sometimes duplicate the work/efforts and no clear roadmap for any of the initiatives and what are the next steps needed after completion of the work.

How will this Initiative attract Foreign Direct Investment (FDI) & Promote Investment?
Attracting Donor agencies targeting upgrading of living conditions and investment in communities' well-being.

Second Initiative:

Energy transition and reduction of emissions in urban areas

Type: Regulatory Reform, Public Awareness & Social Media Strategy

Short Description: A strategy to be developed at a national level and implemented at local levels. The Study should yield strategies aimed at:

- Transition to cleaner forms of energy and reduction of emissions in urban areas especially for:
 1. Private transport (use of e-cars, hydrogen vehicles, non-motorized mobility options for short trips and feeding the public transport system)
 2. Public transport (decarbonization in public transport, e.g. use of e-buses and hydrogen vehicles)
 3. Domestic, public and company buildings (A combination of awareness campaigns, energy audits, building energy efficiency upgrades and metering/billing measures to encourage shift towards reduced/alternate energy habits)
- Increasing reliance on solar power generation.
- Meeting international commitments.

Expected Outcome: Road map that guides further detailed studies and activities with the end goal of reducing emissions to the maximum and yielding a better livelihood.

Initiative Owner: Ministry of Energy and Mineral Resources, Ministry of Environment.

Enablers: Ministry of Transport, Ministry of Education, Municipalities, NGOs.

Private Sector's Role in Implementation: Private sector involvement in operating associated facilities, such as charging stations for electric vehicles.

Expected Duration: Around 6 months

Estimated Budget: Up to 1 million USD

Success Factors: Commitment of the governing entity(ies), solid legal and regulatory framework

Key Performance Indicators (KPI's): Acceptance by concerned Ministries, measure of emissions (Once the strategies are further developed and implemented).

Dependencies: Updating of the Legal Planning Framework for Cities and Villages, approval procedures

Past Attempts: This has been addressed sporadically, without setting strategies.

Reasons / Root Cause(s) for Lack of Success: Lack of commitment and organization

How will this Initiative attract Foreign Direct Investment (FDI) & Promote Investment?
Demonstrating seriousness in turning strategies into tangible actions.

Third Initiative:

Developing and implementing city digitization transformation plans for urban areas including digital infrastructure and services.

Type: Reform

Short Description: Digital transformation to improve services and customer experience by developing a strategy and detailed road map including processes re-engineering, capacity building, supporting software development and public awareness.

Expected Outcome: Better services and less cost.

Initiative Owner: Ministry of Local Administration (MoLA)

Enablers: Municipalities, Ministry of Digital Economy and Entrepreneurship.

Private Sector's Role in Implementation: Supporting the digital transformation by building public awareness and keeping up with the transformation.

Duration: 4 Years

Estimated Budget: 6 million

Funding: International (financial aid) and Local Funding

Past attempts: Very limited by GAM

Reasons lack of success: Funding and resistance to change.

Fourth Initiative:

Formation of an Urban Observatory for cities to collect and analyze city data from all sources including deploying remote sensing to improve services and apply new ones and to face all types of shocks and stresses cities might face and to make data available for researchers' planners and investors.

Short Description: Collecting data and analyzing it will support data driven decision making which is very important to guide decisions and align it with goals. Data will also help investors and support economic development.

Expected Outcome: Efficient decision making, improve city planning, face shocks and stresses with real time information and improve economic development.

Initiative Owner: Ministry of Local Administration (MoLA)

Enablers: Municipalities, Ministry of Digital Economy and Entrepreneurship.

Private Sector's Role in Implementation: Supporting data collection.

Duration: 3 Years

Estimated Budget: 3 million

Funding: International (financial aid) and Local Funding

Past attempts: GAM observatory but with different objectives.

Reasons lack of success: Funding.

Fifth Initiative:

Developing a rainwater drainage long-term comprehensive master plan including related projects implementation road map (including green blue infrastructure) to control and avoid flood risks and exploit rainwater for the next 50 years.

Type: Infrastructure Environmental project

Short Description: Cities in Jordan are always facing floods which is risking people life's, causing large economic losses and environmental pollution by mixing rainwater with sewage water. Cities are spending millions in water drainage infrastructure every year without any studies or long-term planning to overcome this phenomenon which becoming acute due to climate change.

Expected Outcome: Mitigate flood risks through proper planning directing capital spending in flood structures avoiding risking people's lives, economic loss, rainwater pollution and pressure on the sewage system.

Initiative Owner: Municipal Bodies

Enablers: Ministry of Local Administration and Ministry of Water and Irrigation.

Private Sector's Role in Implementation: Property owners (by providing water harvesting tanks, green spaces and green roofs, permeable pavement and by separating rainwater system from sewer water system)

Duration: 10 years and continues

Estimated Budget: 4 million for the first year

Funding: International (financial aid) and Local Funding

Past attempts: Very limited by GAM

Reasons lack of success: Funding

Sixth Initiative:

National urban and economic strategic growth plan

Type: Investment Opportunity, Infrastructure Project /PPP

Short description: Provision of a comprehensive and integrated framework which serves as basis for developing a priority program for implementation of projects (Land Use, Transport, Infrastructure networks, Environmental, etc.). The Master Plan should be multi-sectorial, in a way to coordinate the supply of services with development decisions and demand.

Expected Outcome: Organized and coordinated approach in planning land uses and services provision, including new residential developments, public transport, infrastructure, tourism, and other investments.

Initiative Owner: Ministry of Planning & International Cooperation, Ministry of Public Works and Housing, Ministry of Transport.

Enabler: Municipalities, NGOs, Private Investors.

Private Sector's Role in Implementation: The Master Plan should include financing proposals including PPP modes. This plays a major role in facilitating the implementation.

Expected Duration: 18 to 24 months

Estimated Budget: 3 to 3.5 million USD

Success Factors: Inclusion of all relevant public and private stakeholders, coordination with urban planning studies, proper data availability.

Key Performance Indicators (KPI's): National development and growth indices.

Dependencies: Updating of the Legal Planning Framework for Cities and Villages, creation of a think tank.

Past Attempts: Urban studies have been conducted for Amman at various stages, but none was a comprehensive master plan coordinated with Urban development.

Reasons / Root Cause(s) for Lack of Success: Lack of coordination and commitment by implementing agencies.

How will this Initiative attract Foreign Direct Investment (FDI) & Promote Investment?
Master Plans should demonstrate tangible benefits of implementing projects at optimized costs.

Objective 3: Mobility

First Initiative:

Increase connectedness in and between Urban Areas

Type: Infrastructure Project /PPP, Public Awareness & Social Media Strategy

Short Description: Create public transport in and between the cities (inter and intra-city), contributing to economic growth (local/regional/global), involving:

- Public Transport Master Plan containing reform measures such as; integrating current individual operators in a new transportation system, updating of the fare structure, incorporating Intelligent Transport Systems
- Develop a parking strategy and congestion charging measures to support the transition to public transport
- Prepare Policies for planning, regulating, and operating public transportation that consider inclusiveness and gender non-discrimination supported by design and operational standards
- Recommendations for increasing the use of non-motorized transport modes and facilitating more pedestrian and cycling environment
- Increase capacity of Ministry of Transport to be able to plan/implement/monitor/operate urban and inter-urban Public Transport

Expected Outcome:

- Increase city inclusiveness through improved accessibility and mobility to vulnerable classes in the society
- Connect people to existing urban centers and tourism sites as a main driving force to direct growth away from the capital city.
- Facilitate access to and between remote areas, which translates in a more balanced National development
- Provide further investment opportunities and job creation in governorates

Initiative Owner: Ministry of Transport, Ministry of Public Works and Housing, Ministry of Planning & International Cooperation

Enablers: Municipalities

Private Sector's Role in Implementation: Develop policy on role of private sector in the transport industry and decentralization of public transport under an overall transport and mobility master plan for the country. Furthermore, private sector can play a role in developing and operating transport facilities and transit-oriented development.

Expected Duration: around 1 year for study and 2 to 5 years for implementation.

Estimated Budget: Study around USD 10-15 million; implementation depending on study outcomes.

Success Factors:

- Cultural awareness to the use of public transport in daily and non-daily journeys
- Regulation and implementation mechanism
- Easily accessible system using smart technologies

Key Performance Indicators (KPI's):

- Rideability numbers should increase
- Percentage of private passenger vehicles should decrease

Dependencies: Updating of the Legal Planning Framework for Cities and Villages

Past Attempts to implement this initiative (if any): Various initiatives to promote and organize public transport, including the latest BRT project in Amman

Reasons / Root Cause(s) for Lack of Success: Lack of attractiveness of the system from one side and cultural habits on the other

How will this Initiative attract Foreign Direct Investment (FDI) & Promote Investment?
By linking various investment opportunities and accessing new areas.

Objective 4: Inclusion of Local Communities and Human Centered Design

First Initiative:

Activate underused lands in urban areas to promote productive uses and to enhance public and social spheres.

Type: Restructuring, CSR project, Infrastructure project/PPP, Public Awareness

Short Description: The aim of this initiative is to promote the use of passive spaces within the urban boundaries in more productive and fruitful manners depending on location as follows: (weather in terms of adding social spaces or urban agriculture or even encourage their development.

The initiative is two-fold:

1. Identify appropriate method to promote the use of these under used lands within the urban areas based on priorities of each urban context. The suggested methods can vary between incentive or taxation (or penalty) systems.
2. Develop implementation strategies including restructuring of regulations to integrate the decisions of the study.

The initiative can have the following elements:

- Drive the development of lucrative urban spaces especially around well services urban centers.
- Promote creative uses of spaces for social and productive uses (such as urban agriculture) in participation with local communities and local NGO's

Expected Outcome:

- Develop well serviced locations within urban centers.
- Allow municipalities access to land for social and public spaces within the city.
- Engage communities within neighborhoods to activate lands.
- Utilize CSR opportunities in more inclusive and beneficial projects.
- Promote the uses of lands towards resilience with urban agriculture.

Initiative Owner: Municipalities, local communities

Enablers: Private sector through CSR / NGO's

Private Sector's Role in Implementation: CSR, Under-used lands' owners

Expected Duration: On-going (small multiple projects)

Estimated Budget: 2,000-10,000 JoD per project depending on size.

Success Factors: Municipalities successful in providing incentives. Local communities engaged.

Key Performance Indicators (KPI's): Geared CSR projects for more beneficial and inclusive investments, active engagement of local communities in their built environment, improved economic conditions for local communities, and improved environmental indicators.

Past Attempts: Sporadic initiatives some recorded very good reviews.

Reasons / Root Cause(s) for Lack of Success: Private property values provide active defense against large application of these initiatives.

How will this Initiative attract Foreign Direct Investment (FDI) & Promote Investment?
Improved livability of the city encourages the attraction of foreign investment and invites them to settle in the city.

Second Initiative:

Rethinking Housing Focusing on affordability, and based on city plans that direct housing and city growth

Type: Restructuring of housing sector

Short Description: This initiative aims at consolidating between demand and stock in the housing market. There is acute inconsistencies between housing needs of more affordable nature and the profit-driven supply. The initiative calls for the adaptive reuse and upgrading of existing areas to improve livability. In order to achieve these goals the initiative discusses the restructuring of the housing sector to ensure the lead of city plans to define housing needs and growth directions, as well as the provision of affordable housing instead of profit-driven sprawl.

Expected Outcome:

- Direct housing towards affordability not only in terms of prices but also in terms of access to services.
- Promote housing projects around existing established services within the urban center; utilizing opportunities for adaptive reuse, and opportunities for intensification.
- Direct growth around growth corridors.
- Minimize need for burdening the municipalities and budgets with providing for continuous sprawl.

Initiative Owner: Ministry of Public Works and Housing (MoPWH), Housing & Urban Development Corporation (HUDC).

Enablers: جمعية المستثمرين في قطاع الاسكان الأردني

Private Sector's Role in Implementation: PPP

Expected Duration: 2 years

Estimated Budget: 2 M

Success Factors: Cooperation of housing sector

Key Performance Indicators (KPI's): lowered housing prices, directing housing, lowered sprawl

Past Attempts: Housing & Urban Development Corporation (HUDC) projects in the 80's and 90's

Reasons / Root Cause(s) for Lack of Success: lack of funding

How will this Initiative attract Foreign Direct Investment (FDI) & Promote Investment?

The provision of housing variety allows for multiplicity and choice not only based on economic conditions but also different livability conditions.

Objective 5: Energy, Environment and Climate Change

First Initiative:

Environment Protection through Adaptation, Mitigation, and Increasing Resilience; revisiting Recycling on All levels and engaging the public.

Type: Public Awareness & Social Media Strategy

Short Description:

Development and implementations of road maps, feasibility studies, pilot scale projects, and full-scale projects related to the following:

- Reducing the use of single use plastics (SUPs) such as plastic bags, food containers, cutlery and so on and replace them with reusable products.
- Promoting the concept of circular economy which aims to reduce waste production through changes in the full life cycle of products manufacturing, use, and waste management.
- Promoting organic waste composting through collection of source separated organic waste for composting and reuse in agriculture instead of waste landfilling.
- Promoting recycling across the country through development of recycling programs covering the full recycling cycle including collection of source separated recyclables, development of material recovery facilities, and reuse markets for recyclables. Recycled products to include metals, plastics, paper and cardboards.
- Developing and implementing awareness campaigns for the public in order to increase their participation in waste separation and recycling activities and reduce waste littering.
- Developing technical solutions for recycling of “difficult to recycling” products in Jordan including PET and Glass.

Expected Outcome:

- Diversion of waste from landfilling which promotes healthier, cleaner and improved urban living
- Increase social engagement, especially among youth, create job opportunities and drive growth
- Reduce the need of natural resource exploitation for raw materials, and directly conserve natural resources
- Reduce overall energy consumption and greenhouse gas emissions that contribute to the global climate change, and reduce the incineration or landfilling of the materials that have been recycled

Initiative Owner: Ministry of Environment, Ministry of Transport, Ministry of Energy and Mineral Resources

Enablers: Municipalities

Private Sector's Role in Implementation: Contracts for private entities in collection of waste and operating recycling facilities.

Expected Duration: Around 6 months

Estimated Budget: Up to 2 million USD

Success Factors: Awareness of public through campaigns and cooperation of concerned governmental entities.

Key Performance Indicators (KPI's):

- Acceptance by the public
- Pollution measurements

Dependencies: Updating of the Legal Planning Framework for Cities and Villages

Past Attempts: Many attempts aiming at developing waste recycling programs. For example, several initiatives provided bins for waste separation

Reasons / Root Cause(s) for Lack of Success:

- The recycling programs did not cover the entire waste recycling cycle and did not provide a suitable recyclables collection program. Basically the separated waste in the provided bins was mixed again with general waste in the collection process.
- Low public engagement and awareness activities. The feasibility and quality of waste recycling depends on waste separation and decontamination which is to be done by the public. Therefore, when recycling programs are implemented without proper public engagement, they do not succeed.
- Development of mixed waste (dirty) material recovery facilities was demonstrated to have low recycling efficiency and low recover rates. Instead, clean material recovery facilities which utilize source separated waste is the more feasible and efficient alternative.

How will this Initiative attract Foreign Direct Investment (FDI) & Promote Investment?

A cleaner and more environmentally sound urban setting is key to promote the direct investment by providing a good image of the country.

Second Initiative:

Revisit the Green Building Guideline and Rating System and create a comprehensive best-in-class standards for green building and sustainability within Jordanian building codes (turn the Guidelines to Codes)

Type: Regulatory Reform

Short Description: Since green buildings have a profound impact on our natural environment, economy, health and productivity, the approach of the turning the green building guideline to Codes will have a large impact on the environment in six categories that provide the foundation for green building design by enforcing minimum green building codes.

- Green Building Management.
- Site Sustainability
- Water Efficiency
- Energy Efficiency
- Healthy Indoor Environment
- Materials and Resources

The high-energy demand of the construction sector with shortage of energy resources in Jordan is the main concern for the need of creating such an initiative.

Expected Outcome:

- Less pollution
- Less energy and water consumption
- sustainable and comfortable structures
- long-term more efficient and sustainable buildings
- reducing emissions
- reducing Jordan's energy consumption in buildings, and ultimately decreasing the burden of the energy on the economy
- Enforcement of the codes

Initiative Owner: Jordan National Building Council, Ministry of Public Works

Enabler: Jordan Engineers Association, Civil Defense, Municipalities, Ministry of Local Administration (MoLA), and all government institutions.

Success Factors:

- Government convection as well, public and private sector awareness of the necessity of applying and law enforcement.
- Coordination between GAM, Ministry of Environment, MOLA, and Jordan Engineering Association.

Key Performance Indicators (KPI's):

- % Of new buildings considered green
- new standards developed and adapted;
- Number of contractors/architects with green expertise.

- All public buildings and new private buildings apply Green Building Guidelines 2030.

Past Attempts:

National Green Growth Action Plan:

- Improve the market for green building and construction services market
- Develop and implement a National Green Building Strategy and Action Plan

Amman Resilience Strategy:

- Incentivize application of green building codes
- Develop public awareness campaigns relating to green building solutions and technologies

Climate Action Plan:

- Create a building energy rating and label program
- Increase participation in green building incentive program (Density bonus)
- Rebate program for energy efficient appliances
- Implement green building strategies in public schools, universities, and religious institutions
- Implement green building strategies in public hospitals
- Improve enforcement of building codes

Reasons / Root Cause(s) for Lack of Success: Not aggressively enough implementation and adjustment to code.

How will this Initiative attract Foreign Direct Investment (FDI) & Promote Investment?

Indirectly by creating a more sustainable urban environment. Clean and sustainable urban areas will attract foreign investment.



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