Global Smart City Partnership (GSCP) Program Activities

Responding to Smart City Challenges and Needs

September 2021

Isaac KIM NICON Company Smart City Consultant

Challenges of Developing Smart City Activities

Project Initiation	 Need for combination of political will as well as specific technical direction How should the project be designed that meets the needs of the stakeholders? 	
Stocktaking and current situation analysis	 What is the current situation. Where are the gaps, where are the potential areas for intervention? Who is doing what? What area does the government already have plans for? 	GSCP Support Activities
Direction of Development	 What are the priorities? What technologies should be used? Need for development of a "Smart City Portfolio" 	

Dhaka North Neighborhood Upgrading Project - Component 2 Project Development (Project Initiation)

Asset Management

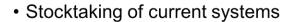


- Waste bins
 City-owned utility
 City-owned assets
- Traffic data
 distance, time
- Asset list and items requested for movable or immovable properties of DNCC
- Linkage with Shobar Dhaka and Safetipin
- Process mapping of key asset management related processes
- Initial plans for modernization/digitalization of services

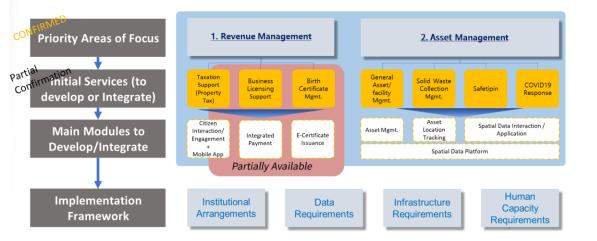
Spatial Data Platform

E	Building	Owner	Data Linkage
/stem	information	information	Citizen Building
SDP Sy	Address information	Business information	DB DB Address Business DB DB

- Current situation assessment including current existing revenue management system(RMS) developed by Bangladesh Rural Development
- Cataloging data necessary for DNCC activities including spatial data and other data necessary for Revenue collection, asset management, and other DNCC services
 Understanding of linkage and integration requirements with existing systems



- Stakeholder engagement to identify priority areas for development, stakeholder consensus development and alignment
- Identification of integration areas, development of strategy and roadmap
- Input for internal project documentation (PAD, ToRs, etc.)



Smart Palestine Municipalities – Assessment and Setting of Future Direction

Categorization	Level	Main Contents
ICT Governance (policy, organization, investment)	O	Decentralized approach, coordination challenges between municipalities (funding issues) - Challenges with vertical and horizontal integration of data and services - Policies on ICT available but not fully accepted by participants - Investment on ICT services competing with other serious priorities
Human Resources Development (HRD)		General capacity is relatively high (but staff capacities vary according to municipalities) - Technical capacity is relatively high overall, but there are gaps in some specific technical areas where exposure is not available (service development expertise, enterprise architecture, personal data protection/privacy) - Central capacity development initiatives not visible
Administrative Efficiency		Ongoing process of administration modernization - Paper based manual processing mixed with some automated services - Limited process reengineering/process innovation activities - Some municipalities have started physical "one-stop-centers" and even e-Municipalities
Civil Services		General trend towards improving services delivery for citizens - e-Municipality services as a pilot - One-stop center as a pilot and developments ongoing, but only in large municipalities - Small municipalities do not have back-end systems, but are utilizing Social media for interactions with citizens
Infrastructure		Decentralized approach for infrastructure development - Separate and secure government/municipal network not available - Government Network Connectivity
Databases, Registries		Decentralized approach for databases and registries (Underdeveloped data governance) - Duplicate databases, issues with "one" database and "once-only" principal - Each organization keeps its own set of data as needed, central government has not shown willingness to share data with municipalities - <i>GeoMOLG</i> established as strong starting point for Regional SDI (Spatial Data Infrastructure), but concerns with operational sustainability

E-MUNICIPALITY Draft ICT GOVERNANCE CAPACITY BUILDING E-Municipality Values ICT Standards ICT Training (Vision, Mission, Goal, and Strategies) SERVICES *(FRONT OFFICE)* SERVICES [BACK OFFICE] One Stop Center CITIZEN & BUSINESS SERVICES Integrated Administrative Information System **F** Online Citizen Service Portal Human Resource Management System Electricity and Water Management Citizer Municipality IFMIS (Already Available) Health and Environment SMART CITY SOLUTIONS Certificate Services Disaster Management System & ITS Fees and Taxes Other Offices Business Architectural Administration Information Craft and Industry System (GIS-Based) PRIVATE ORG PUBLIC ORG Tax Solutions INFRASTRUCTURE INFORMATION RESOURCE MANAGEMENT Ministries Health Orgs INTEGRATED DATABASE Financial Other Data Center Security E-Payment Gateway Enterprise Architecture Institution Municipalities

1. Decentralized but uncoordinated approach to services delivery

- Central government (including Ministry of Local Governments) strategies, frameworks and guidelines not fully accepted by municipalities*
- Duplication of activities, and limited coordination with central and municipal government (Silo based development by individual municipalities)
- Services delivery boundaries have been established, but not clearly understood by citizens, and limited integration of services among, central, municipal, and other neighboring municipal government. (Differing opinions on effectiveness of joint services committees)

2. Gaps in digital value-chain

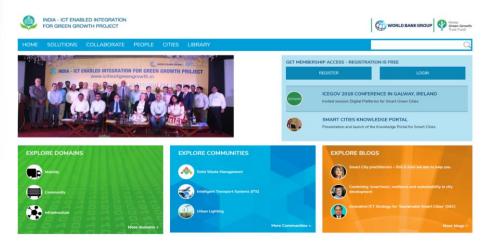
- Financial payment mechanisms currently not possible due to legal framework, other international payment mechanisms not available within Palestine
- Channels for digital interaction with citizens limited in rural areas, paper based transaction still prevalent

3. Sustainability, Operations and Maintenance (O&M)

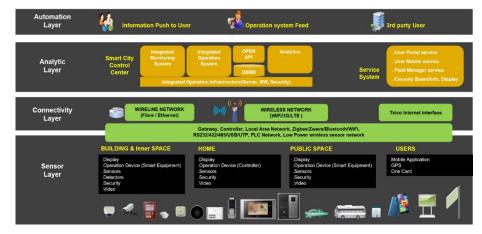
- Difficulties in securing resources for O&M
- Vender lock-in and licensing concerns for certain systems, SW, and HW (Example: GeoMOLG)
 - Assessment of current situation
 - Identification of challenges
 - Setting of future technical model and future direction
 - Additional smart city integration review of existing initiatives

Smart Cities Pillar of Kazakhstan SCAI Project – Sharing Examples of Future Development

(3) New Smart City Policy (2018~) "Smart City Promotion Strategy" for urban innovation and future growth engine ('18.1) Human-centric, Innovative Growth, Sustainability. Key Leading Global Smart City Vision Citizen Engagement, Competence Innovation Customization, Openness, Hyper-Connectivity Strategy 1 Differentiated Approach to Urbanization Maturity 1 Green Field : Test Bed (2 Cities : Sejong, Busan), Hub of Regional Development (2) Brown Field : Smart City Regeneration (5 places per year), Use Cases, Living Labs (3) Smart Infra : Integrated Operation Center, Data-Centric Management, 5G & LPWAN Strategy 2 Customization for Improving the Value of CITIES and Quality of Life (1) Technology : Adaptable to the City Environment and 4th Industrial Innovation Technology(AV, AI, IoT, Big Data) (2) Service : Crowd Sourcing, Open Innovation, Self-sufficient Services and Solutions(Healthcare, Safety, Education) Strategy 3 Public-Private-People Partnership () Private Sector : Creative Smart City Eco-System, Business Development(Energy, Transportation, Environment) 2 Citizen & People : Smart Community, Open Innovation, Living Labs, Crowd Sourcing & Funding (3) Government : Central-Local Government Collaboration, Integrated Operation Center, Regulation Sandbox



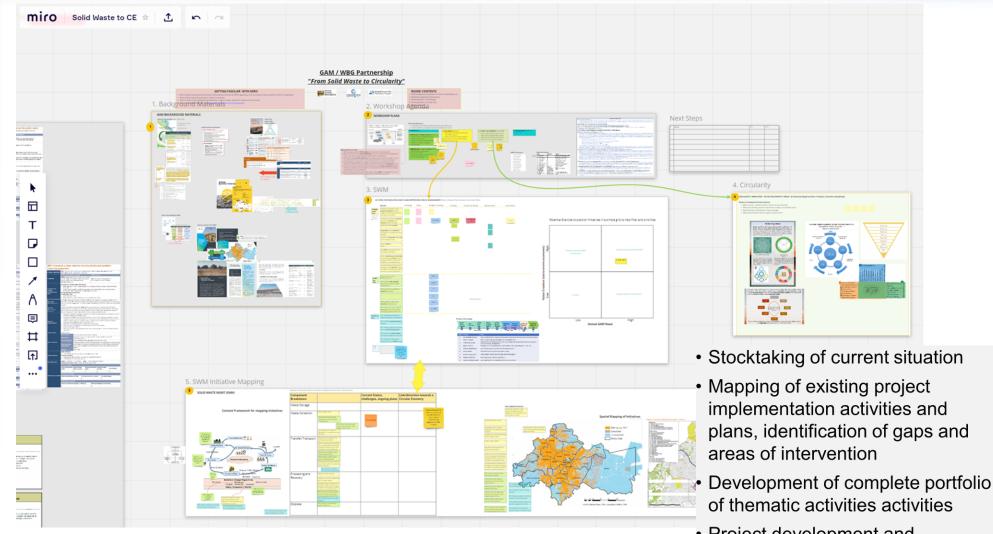
Conceptual Smart City Layer



- Review of existing strategies and documents and feedback for improvement
- Providing examples of case studies for direction forward
- National Smart City Promotion Strategy
- National Smart City Knowledge sharing platform
- Technical design of Smart City
- Etc.

 \rightarrow Provides specific references for ideation of future development

Towards a Smarter and Greener Amman (ongoing) – Comprehensive Project Development Support (Portfolio Development)



 Project development and packaging