

Assignment / Terms of Reference

GIS Database for Dreib Unions of Municipalities, Akkar, Lebanon

Position description	
Object	GIS Database for Dreib Unions of Municipalities, Akkar, Lebanon
Name	
Activity name	<p>SO1: To improve the capacities of subnational governments to engage in holistic, area-based planning and consider different scenarios that respond to the needs of the host, refugee and IDP populations.</p> <p>1.4.3 Procurement of supporting tools & data for GIS and planning unit</p>
Project background	<p>MASAR for Local Governments is a programme funded by the EU MADAD trust fund and implemented in Lebanon and Iraq. The overall aim of the programme is to strengthen the long-term resilience of targeted subnational governments and their host, refugee and IDP populations to deal with displacement.</p> <p>MASAR has three objectives:</p> <ul style="list-style-type: none"> – To improve the capacities of subnational governments to engage in holistic, area-based planning and consider different scenarios that respond to the needs of host, refugee and IDP populations. – To improve service delivery to generate greater social stability outcomes based on the needs of host, refugee and IDP populations. – To empower subnational governments and service providers to facilitate local economic development and to have better access to municipal investment that benefit the extension of safe public services and create economic opportunities for host, refugee and IDP populations. <p>In Akkar, Lebanon, MASAR supports three Unions of Municipalities: Dreib el Gharby, Dreib el Awsat, and Akkar El Chemali. .</p> <p><i>Background specific to the assignment:</i></p> <p>In December 2020, a study exploring requirements and feasible scope of GIS implementation in the Dreib Unions of Municipalities (<i>GIS Assessment</i>) was finalized providing a thorough assessment of the their databases. The scope of this assignment has been defined based on the study, which will be a part of background materials for the assignment. In May, Expert in GIS Capacity Building started their assignment working with the Dreib Unions of Municipalities on operationalization of planning units and training of their staff.</p>

	<p>GIS implementation is a part of MASAR activities, alongside activities related to strategic planning, road safety, wastewater management and local economic development. As a part of his/her assignment, the Expert will be available to experts conducting complementary activities for consultancy aiming at a better understanding of context and alignment of interventions.</p>
Specific background materials	<ul style="list-style-type: none"> – MASAR information package – <i>GIS Assessment for the Dreib Unions of Municipalities</i> – Relevant recommendations of the GIS capacity building expert
Aim of this assignment	<p>The aim of the assignment is to provide the three Dreib Unions of Municipalities (29 municipalities) with an up-to-date and reliable GIS database suitable for municipal planning and public information purposes. The database should support institutionalization of planning units at the Unions, and therefore the Expert should work in close coordination with their supervisors and staff.</p> <p>According to <i>GIS Assessment</i>, no cadastral, zoning, decree and planning maps or satellite imagery are available at any of the 29 municipalities. However, elevation, road network and land use maps have already been acquired as a part of the assessment. The Expert will integrate them into the database.</p>
Geographical scope of the assignment	<ul style="list-style-type: none"> – Union of Municipalities of Dreib El Gharby (7 municipalities) – Union of Municipalities of Dreib El Awsat (12 municipalities) – Union of Municipalities of Northern Akkar (10 municipalities)
Key Responsibilities	<p>The Expert will be responsible creating a database of GIS maps and satellite imagery for the three Dreib Unions of Municipalities (29 municipalities in total) as well as introducing the Unions' employees to the database.</p> <p>The database will include:</p> <ul style="list-style-type: none"> – Cadastral maps, – Decree and zoning maps, – Planning maps and regulations, – High resolution satellite imagery, – Database development and design. <p>Moreover, the Expert will integrate the already acquired elevation, land use and road network maps into the database.</p> <p>The database should be up-to date, and should comply with the specification provided further. The Expert should include the Dreib Union Engineers in the process of obtaining the data and database design.</p> <p>The expert will introduce the Unions' employees to the database through individualized workshops for each of the Unions (3 workshops).</p>
Main activities	<p>The main activities have been ordered by deliverables.</p> <p>Deliverable 1: GIS Cadastral Maps</p>

	<ul style="list-style-type: none"> - Request, follow-up and acquire the updated paper maps for the 29 municipalities of the Dreib, with all the additional land subdivision and land pooling until the date of the contract; - Gather all the digital CAD maps and convert them into GIS data - Update the GIS maps to include every subdivision and land pooling - Rectify the maps and fix topology errors. <p>Deliverable 2: Basic GIS Zoning Maps, Decree/Planning Maps and Regulations</p> <ul style="list-style-type: none"> - Request, follow-up and acquire the updated paper maps for 29 municipalities - Data must be georeferenced and rectified - Land-use planning regulations for each zone including specifications <p>Deliverable 3: High Resolution Satellite Imagery</p> <ul style="list-style-type: none"> - Acquire 2020 Cloudless High Resolution Imagery 30 cm resolution for 29 municipalities (Area around 157 sq. km). <p>Deliverable 4: Database design and development</p> <ul style="list-style-type: none"> - Design and develop a complete database schema compatible with both open source and commercial GIS to include all the deliverables mentioned above with their attributes. This database should allow for data maintenance and update as well as ensure security. The data base should cover all 29 municipalities. - Integrate the already available maps (elevation, land use and road network) into the database. - Hyperlink all the Land Register records related to all land subdivision and land pooling to its designated Real Estate in the cadastral maps. - Add the georeferenced and rectified paper maps (Zoning, Cadastre) to the database. - Add the CAD maps to the database. - All the GIS layers must have Metadata. - The Database must be available in Stereographic Projection and in WGS-UTM Zone 36 Projection. <p>Deliverable 5: Presentation of database and availability for consultancy</p> <ul style="list-style-type: none"> - Meet with the representatives of the Unions of Municipalities and present the database for the relevant Union to them; - Coordinate with the topographer for the area throughout the assignment and present the database to him/her once it has been completed; - Remain available to representatives of the Unions of Municipalities for consultancy regarding the data throughout the assignment.
<p>Outputs / Deliverables</p>	<ol style="list-style-type: none"> 1) GIS Cadastral maps in GIS Shapefile or Feature Class format 2) GIS Zoning, decree and regulation maps in GIS Shapefile or Feature Class format 3) High resolution satellite images in Georeferenced Raster Format (.tif) 4) Database design and development in two formats: PostgreSQL (for open source GIS) and ESRI Geodatabase (for commercial GIS)

	<p>5) Presentation of database to Dreib Unions' employees and availability for consultancy.</p> <p>Each of the deliverables listed in points 1-4 shall cover all 29 municipalities.</p>
Reporting requirements	<ul style="list-style-type: none"> - Brief report from the assignment, based on PCPM template - GIS database
Coordination	<p>Throughout his/her assignment, the Expert will cooperate with:</p> <ul style="list-style-type: none"> - Representatives and staff of the three Dreib Unions of Municipalities; - Topographers for the area; - PCPM's Front Officer, Project Manager, Thematic Coordinator, and Focal Point Officer, who will introduce the Expert to the MASAR project as well as support him/her in coordination tasks; - Experts conducting complementary consultancies in the fields of strategic planning, GIS capacity building and touristic mapping. <p>Coordination between the Expert and the local governments' representatives and experts working on complementary consultancies shall be arranged by PCPM.</p>
Minimum qualifications	<p><u>Education:</u></p> <ul style="list-style-type: none"> - Expertise in GIS and CAD software, topography, cartographic modelling, surveying, aerial and satellite imagery, and cadastral planning, - Higher education diploma in disciplines related to spatial planning, cartography, geography or municipal governance; - At least 3 similar consultancies (GIS for municipal governance) over the last 4 years; - Excellent knowledge of the municipal mandate in Lebanon; - Fluent English and Arabic in reading, writing and speech. <p><u>Competencies:</u></p> <ul style="list-style-type: none"> - Reliability: fulfilling obligations in a highly responsible manner; - Self-control and maintaining composure; - Attention to detail, proper information management; - Excellent communication skills; - Tolerance and adaptability.

Terms and Conditions

Period of the assignment	45 days from the signature of the contract over the period of 2 months, whereby deliverables 1-3 should be completed by the 20 th day of consultancy.
Submission	All bidders participating in the procurement should submit a technical proposal.
Location of the Assignment	Akkar, Dreib Area (3 Unions of Municipalities – UoMs).

Relevant contact details	<ul style="list-style-type: none">- Front Officer, Dominika Michalak: dmichalak@pcpm.org.pl- Project Manager, Joanna Byszewska-Zapletal: jbyszewska@pcpm.org.pl- Thematic Coordinator, Pascale Beainy: pbeainy@pcpm.org.pl
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