

**RFP/2020/14: UN-Habitat for Developing a Preliminary Design for
Flood mitigation measures and performing a Flood Risk Assessment
and Flood Hazard Mapping for Downtown Amman**



Q&A

Question	Answer
There are very strict requirements regarding the language skills (English and Arabic) and local experience in Amman for the team members. Would it be sufficient that we have in our team Arabic speaking (Jordanian) members with the local knowledge, however the specialist knowledge of hydrologic and hydraulic modelling would be brought in by our European experts who don't have the required language skills and local knowledge?	Some of the project team members are required to be proficient in Arabic but it's not a requirement for all. As long as some team members can read and understand Arabic and are able to communicate with the Jordanian employees of the local Authorities to obtain data and communicate and translate reports and information that should be sufficient.
Can you confirm that sufficient baseline information is available in Amman to support the study (detailed DEM, hydrological data, historical floods)? Is there already a hydrological model which could be used for this project?	A 10x10 meter DEM that covers the watershed is available and a topographic survey is being conducted for a portion of the water path in the watershed and for the targeted area with cross sections perpendicular to the flow direction in the targeted area. This information will be made available to the consultant at the start of the project. Other information needed such as the rainfall records data, additional stormwater infrastructure data and any other needed information will be under the consultants responsibility to obtain from the official sources. If some needed information is missing from the topographic survey the consultant may propose sources to supplement the data, request the data from GAM or propose interpolation methods to supplement the topographical data and information needed for modeling.. Developing a hydrological model is the responsibility of the Consultant, and is an essential part of the work.
The time table for the project is very ambitious. You request to collect a lot of information from different organizations which in our experience can be a slow process. Is the required information readily available and can be provided directly at start of the project?	The readily available information will be provided at the start of the project to start the initial tasks. Some information is available at Greater Amman Municipality and rainfall data is available at the Ministry of Water and Irrigation. It is the responsibility of the Consultant to obtain that information, However UN-Habitat will provide support to help obtain that information if needed.
There are several process steps which require interaction with other parties (including UNDP) which can introduce delays to the program, has this been considered? What is the reason for this very short time for the project?	It is the intention of UN-Habitat to start implementing the intervention measures and complete their construction within a strict deadline as part of the overall UN-Habitat Project:

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	<p>“Strengthening the Social Stability and Resilience of Vulnerable Jordanian Communities and Syrian Refugees in Amman against Flash Floods”. Therefore the preliminary design should be completed within the specified time period in the RFP so as not to delay the subsequent steps needed to implement the measures. The interaction needed with UN-Habitat is to provide feedback and coordinate efforts of the different stakeholders. Both UN-Habitat and Greater Amman Municipality must approve the proposed measures and therefore interaction with these stakeholders is required to provide direction on what proposed interventions may be preferred to focus efforts on them.</p>
Social acceptance of the proposed solutions is often an issue, what is your expectation in this case, and how this to be managed?	<p>The proposed solution should consider zero to very minimal impact on private properties. It is preferred that the intervention be implemented on public property that is under the authority of GAM after obtaining their approval. The aim of the intervention is to reduce the risk and hazard of flooding to the general public. the solutions should be presented to the public in a positive perspective as part of the community outreach portion of the UN-Habitat Project: “Strengthening the Social Stability and Resilience of Vulnerable Jordanian Communities and Syrian Refugees in Amman against Flash Floods”.</p>
Should the consultants submit a technical and cost proposal or just a technical proposal and wait to be contacted to submit the cost proposal after technical evaluation.	<p>As mentioned in the RFP document, just technical proposal. Following the technical evaluation, you will be contacted to provide the financial offer only if you have passed the score of 70%</p>
The consultant requested for a site visit to be organized.	<p>The targeted site is a large area that extends over 6 km in downtown amman. The work also includes the watershed of the targeted area which includes a large portion of Amman. The targeted area is well described in the TOR and a map of its location is provided. The area is accessible to the public. the consultant may visit the area without need for an organized site visit.</p>
In Page 21 under Deliverables, the expected project of submissions was shown. The schedule of submission is very	<p><u>Collecting the data is part of the consultant’s responsibility</u>, readily available data such as</p>

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<p>tight schedule. Based on this very tight schedule it is expected that all the data, surveys, previous studies, 2070 master plan and target area survey shall be made available to the Consultant at the contract signing. Delaying of these data handling will entail delayed submission of the deliverables.</p>	<p>topographic survey information for the targeted area, survey of the water path from point D1 to point E1 shown in Figure (4) of the RFP, a 10mx10m DEM for the watershed and other plans and information needed to start the hydrological and hydraulic modeling will be made available to the consultant at the start of the project. This information is sufficient to start with the initial steps required for modeling. However, collecting all the information needed and supplementing the readily available data using approved methods to meet the standards required is part of the consultant's responsibility <u>and should be completed within the time period listed in deliverable schedule in the ToR in the RFP</u></p>
<p>As per the requirements of the RFP a rigorous 1D/2D hydraulic modeling shall be required to cater for the piped network flow in addition to the surface flow. This model requires the availability of - Comprehensive high-resolution survey data for the catchment (survey with DEM 10m x 10m might not be enough to cover the required tasks mentioned in the RFP) - Planimetric mapping, 3D, building footprints, break lines at road edges as well for the targeted area - All as built drawings for the piped network information (pipes sizes, levels, slopes and alignment) in an editable format.</p>	<p>The RFP requires the use of a 1D hydraulic model, and the use of surveyed topographical information for the hydraulic modeling not the use of a DEM for hydraulic modeling. 2D modeling is not required. All output required from the hydraulic modeling can be obtained from the 1 D hydraulic model using surveyed topographic information, building elevation information and data extracted from areal imagery and other information to build the geometry input of the hydraulic model. This geometry input fall under the consultant's responsibility to collect and extract.</p>
<p>The RFP calls for qualitative vulnerability assessment for the targeted area which will lead to the qualitative risk assessment of the targeted area. This work shall require additional survey works and additional analysis that will require more allocated time to complete a proper study</p>	<p>Determining the risk is associated with the rainfall frequency analysis, the rainfall temporal distribution and the results of the hydrological and hydraulic models after inputting the rainfall events associated with a risk value. The hazard is associated with the flood properties at the targeted area that are obtained from the hydraulic model. Both the risk and hazard should be evaluated quantitatively not qualitatively from the modeling and analysis conducted and described in the RFP. Knowledge and familiarity with the land use and urban nature of the targeted area will be helpful in assessing other factors needed for the risk and hazard assessment but the main input needed for this</p>

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	assessment is quantitative information obtained from the required analysis and modeling described in the RFP
<p>In page 24, the TOR requests that the consulting firm submit all reports in English and Arabic. The tight schedule shown in the RFP force the Consultant to consider the following:</p> <ul style="list-style-type: none"> o The English version of the reports shall be submitted as per the RFP o The Arabic version of the reports shall be submitted 10 days following the submission of the English version <p>It should be noted the original very tight schedule of the submission and the queries mentioned above.</p>	<p>The RFP requests two main comprehensive Reports at the end of Phase 1 and Phase 2. The other weekly reports required are interim reports needed to measure and monitor progress of the work and provide feedback and direction to the consultant. The proposal to submit the Arabic versions of the report 10 days after submission of the English version as per .the RFP is acceptable</p> <p>The schedule in the RFP is reasonable considering that the tasks listed in the RFP will be conducted by a team of engineers and experts not and individual engineer and that many of the tasks can be performed in parallel to each other, such as building the hydrologic model, the rainfall analysis and the hydraulic model geometry input. While the tasks that are dependent on completion of previous tasks to start are relatively short duration tasks or have been assigned reasonable sufficient durations.</p>
<p>In page 24, the TOR requests that the scope of work of the project manager includes other tasks requested by UN-Habitat. Please specify these tasks.</p>	<p>The project manager assigned to the project should be one of the key personnel assigned to perform the tasks of project. Other tasks requested by UN-Habitat are the technical tasks that should be performed by the key person in relation to his technical role in the project, in addition to the roles mentioned on page 24.</p> <p>Developing a preliminary design for flood intervention measures is part of the work required to be performed by the consultant. The location of type of the measures are not currently determined, therefore all the engineering designs and tasks required to develop the preliminary design such as stability analysis of the proposed structure and other engineering technical work are part of the scope of work and might fall under the Project Manager's</p>

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	<p>responsibility if it is part of his technical expertise.</p> <p>Tasks and assignments listed on page 24 and tasks related to the scope of work, in the spirit of the scope of work and task list in the RFP in addition to the typical role of the project manager will be required from the Project Manager.</p>
<p>In page 21 the deliverables schedule shows that all the reports shall be submitted in 9 weeks while in page 27, it is mentioned that the duration of services is expected to be 12 weeks from the date of contract signing. Please clarify.</p>	<p>The three week after the competition of the final deliverables are for inquiries UN-Habitat or GAM might have after submitting the Final report. Only questions, clarifications and tasks that are part of the consultant's responsibility will be asked to be performed by the consultant in that three week period if needed. <u>The consultant shall complete his work as per the ToR in the 9 week period per the deliverable schedule on page 21.</u></p>
<p>"With Reference to TOR, Phase I: Development of Preliminary Design and Feasibility Study for an Immediate Flood Mitigation and Intervention Measure, page 9, Task 2 Data collection. Its mentioned that we will need meteorological data such as hourly rainfall records. It may be available in Ministry of water for free but in case if these data not sufficient we need them from Jordan Meteorological Department, which need fees. Please clarify who will pay the fees?"</p>	<p>The data collection is the consultant's responsibility including the cost and fees to obtain the needed data to perform the work.</p>
<p>With Reference to Minimum qualification for the firm and proposed project personnel, page 24 it is mentioned that " The consultancy firm shall identify a project Manger among the key personal below " . Please confirm that the project Manager will be one of the key personal which are mentioned in page 25-27 not an additional staff</p>	<p>Yes the Project Manager will be one of the key personal not an additional staff.</p>
<p>Please confirm that the data to be collected in Task 2, Item 2.1, will be provided by GAM to the Consultant free of charge.</p> <p>Data collection is the consultant's responsibility. This responsibility includes the cost and fees to obtain the</p>	

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<p>needed data to perform the work. The consultant shall coordinate with GAM and other official authorities to obtain the data necessary to perform the work in accordance with the Tor in the RFP</p>	
<p>Please confirm that the topo survey and as-built drawings will not require verifications or field measurements by the Consultant and will be ready to use as received.</p>	<p>Some field verification may be required. It is the consultants responsibility to review the collected data including topo surveys and as-built drawings and fill gaps in that data if needed by conducting field measurements or supplementing the data if needed using approved interpolation such as kringing or other scientifically justified methods and/or data extraction methods</p>
<p>Please confirm that the 10mx10m DEM in Task 3, Item 3.3, will be provided by GAM at no additional cost to the Consultant.</p>	<p>A 10x10 DEM will be provided to the consultant at the start of the project</p>
<p>Please confirm that the observed flooding information requested in Task 3/Item 3.3 for the validation and calibration of the hydraulic model will be provided by GAM at no additional cost to the Consultant.</p>	<p>Data collection including observed flooding information is the consultant's responsibility. This responsibility includes the cost and fees to obtain the needed data to perform the work. The consultant shall coordinate with GAM, other official authorities and other sources to obtain the data necessary to perform the work in accordance with the TOR in the RFP</p>
<p>Please confirm that the data to be collected Task 9, Item 9.1, 9.2, and 9.6, will be provided by GAM at no additional cost to the Consultant</p>	<p>A topographic survey is currently being conducted. The elevation data in this survey may contain some gaps or missing information and some field verification may be required. It is the consultants responsibility to review the collected data including topo surveys and as-built drawings and fill gaps in that data if needed by conducting field measurements or supplementing the data if needed using approved interpolation such as kringing or other scientifically justified methods and/or data extraction methods</p> <p>Conducting a topographic survey is not part of the work required by the consultant under this RFP, however, filling gaps and supplanting some elevation data in addition to conducting approved interpolation and kringing techniques and other data extraction methods to estimate elevations between surveyed cross sections and</p>

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	fill gaps in the cross sections is part of the consultants responsibility including the cost associated with these methods and the field visits and verifications that may be needed.
: Please confirm that the specifications mentioned in Task 6 are not detailed technical specifications for tendering documents but rather for the preparation of a reasonable cost estimate.	Preparing tender documents are not part of the scope of work. Developing a preliminary design for flood intervention measures is part of the work required to be performed by the consultant. The location and type of the measures are not currently determined, part of the work required in the RFP is to determine a site and type of intervention(s) then developing a preliminary design for that or those interventions. Therefore, all the engineering designs and tasks required to develop the preliminary design such the hydraulic and hydrologic calculations for the intervention, the dimensions, layout plans sections, profiles and details of proposed structures including spillways, the type and dimensions of the spillways, the materials to be used and general specifications of these materials, site clearing requirements, cut and fill requirements, engineering calculations for the structure stability, integrity anchoring requirements foundations...etc, details of the stability anchoring and foundation requirements, concrete work requirements, needed work to develop a detailed design and tender documents, should be part of the feasibility study and preliminary design of the proposed intervention. The cost of all the work required to implement the proposed intervention(s) including costs of detailed design work, geotechnical explorations, site surveys, detailed structural designs, preparing detailed designs, preparing detailed specifications, preparing tender document for construction, construction cost, including mobilization and demobilization, demolition (if required) site clearing, material quantities and cost, labor cost, construction management cost, contractor overhead and profit, testing and supervision cost...etc should be included in the BOQ and cost estimate. The cost estimate should be based on market study of the current rates and material costs and should be reasonably accurate for a project definition level of 20%.

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<p>Please confirm that the BOQ in Task 6 is for cost estimate, not to be part of tender documents.</p>	<p>Yes the BOQ is for Cost Estimate (see answer to question 6 above)</p>
<p>In page 12, task 4.1, it is mentioned that the cost and time required to implement the intervention.... Shall be within limits set by UN-Habitat. Please specify.</p>	<p>UN-Habitat Project: “Strengthening the Social Stability and Resilience of Vulnerable Jordanian Communities and Syrian Refugees in Amman against Flash Floods” includes several goals to be achieved within a specific time and cost limit. One of these goals is to construct a physical flood innervation measure or measures. Developing a detailed design, tender documents and constructing the intervention measure(s) are all goals within this mother project in which specific budget and time is allocated for. The work associated with the RFP for “Developing a Preliminary Design for Flood Mitigation Measures and Performing a Flood Risk Assessment and Flood Hazard Mapping for Downtown Amman” (the current RFP) includes the Preliminary Design which is the first step to achieve the goal of constructing the intervention measure(s). The preliminary design should consider the cost and time limitations for achieving the construction goal. The details of which will be made available at the beginning of the project. However, the cost of implementing the immediate measure which this RFP seeks to develop a preliminary design for is in the range of approximately 400,000 USD including detailed design and supervision and the preliminary design should consider an intervention that will take approximately 4 months to construct</p>
<p>Please confirm that the topo survey in Task 6, Item 6.1. will be provided by GAM at no additional cost to the Consultant.</p>	<p>A topographic survey is currently being conducted. The elevation data in this survey may contain some gaps or missing information and some field verification may be required. It is the consultants responsibility to review the collected data including topo surveys and as-built drawings and fill gaps in that data if needed by conducting field measurements or supplementing the data if needed using approved interpolation such as kringing or other scientifically justified methods and/or . data extraction methods</p>

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	<p>Conducting a topographic survey is not part of the work required by the consultant under this RFP, however, filling gaps and supplanting some elevation data in addition to conducting approved interpolation and kriging techniques and other data extraction methods to estimate elevations between surveyed cross sections and fill gaps in the cross sections is part of the consultants responsibility including the cost associated with these methods and the field visits and verifications that may be needed.</p>
<p>We note the request that one-dimension modelling software should be used to model the flood flow dynamics in the Downtown Amman culvert and the surface flow in the targeted area. We draw your attention that this type of modelling requires two-dimensional modelling software.</p>	<p>The RFP requires the use of a 1D hydraulic model, and the use of surveyed topographical information for the hydraulic modeling, 1D modeling is appropriate and suitable for the flow in the targeted area and the data available, the application of the modeling effort and the data availability. 2D modeling is not required. All output required from the hydraulic modeling can be obtained from the 1 D hydraulic model using surveyed topographic information, building elevation information and data extracted from areal imagery and other information to build the geometry input of the hydraulic model. This geometry input fall under the consultant's responsibility to collect and extract</p> <p>The consulting firm may propose modeling methodology suitable for this application as long as it achieves the standards in the ToR with the time and data availability constraints. The proposed methodology should include justification of the model proposed, the input data requirements and methods to obtain that data. The proposal will be evaluated as part of the methodology evaluation in the Quality of technical proposal, methodology and work plan in the technical evaluation criteria table in the RFP</p>
<p>Please confirm that the 50-year projected urbanization plans, land use and stormwater runoff drainage and conveyance systems needed to adjust the hydrological model in Task 10, Item 10.2, will be provided by GAM at no additional cost to the Consultant.</p>	<p>Data collection including future plans and future projected conditions is the consultant's responsibility. This responsibility includes the cost and fees to obtain the needed data to perform the work. The consultant shall coordinate with GAM, other official authorities</p>

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	and other sources to obtain the data necessary to perform the work in accordance with the TOR in the RFP
In the deliverables schedule on page 21 of the TOR, the relation between the submission dates of deliverables for Phase 2 and Phase 1 is not clear. Kindly clarify.	<p>The deliverable submission table includes Submission of reports (in weeks from the date of contract signing). The submission in weeks assumes that the work for phase 1 and 2 may overlap. Since the data for developing the geometry input of the hydraulic model may be available early in the project and the task of developing the geometry input and reporting on it (tasks 9.6 and 9.7) are in the critical path of developing the mapping tasks. It required to start with this task which falls under Phase 2 early in the project along with the tasks .to complete Phase 1</p> <p>The consultant may propose a work plan depending on the availability of the resources availability of the technical team assigned to the project, however the delivery schedule should assure that all tasks required to complete Phase 1 should be completed within 5 weeks from the date of contract signing and all tasks required to complete phase 2 should be completed within 9 weeks of .contract signing</p> <p>The consultant's proposed work plan will be evaluated based on criterion (e), (g), (h) and (i) in the Quality of technical proposal, methodology and work plan in the technical evaluation criteria table in the RFP</p>
We believe that the project duration proposed in the TOR is inadequate to fully achieve and address all project requirements and deliverables in the project's scope. Please consider increase the total project duration to six months	It is the consulting firm's responsibility to allocate and commit adequate resources including adequate experienced technical personnel and staffing needs to achieve the project requirements and deliverables in the scope within the duration specified in the ToR
As understood from RFP page 25, the project manager role will be occupied by one of the 5 key experts proposed (Senior Hydrologic/Hydraulic Engineer). Please confirm if this is correct.	The project manager can be any one of the five (5) key experts required to be assigned to the project. As long as the project manager processes the technical expertise and management skills required to perform the duties of project management

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On page 22 of the TOR, mandatory documentation and supporting documents, CVs and profile of key staff (management). Please clarify if these are referencing the company's management staff.	<p>Yes this references the company's management staff and please note that the required information includes both the</p> <p>- CVs and profile of key staff (management) – Company management staff and</p> <p>-CVs of proposed Experts (project) –key personnel of the team assigned to the project</p>
In addition, due to the short duration and sensibility of the project, kindly advise if an extension to the deadline for the proposal submittal will be considered.	The deadline for submitting the proposals is August 3, 2020 at 12 noon
In reference to the staffing requirements, can a consultant's CV be included in two different companies proposals, provided that he/she agrees to be available in case of successful awarding of the project?	The consultant CV should only be included in one offer.