

Minaret NEXUS projects in Karak, Jordan : A Value chain approach to pilot and socio-economic design and product definition.

Final Technical Report

Prepared by: Q perspective

Submitted to: Minaret Project Team.

Executive Summary: During the fourth reporting period (two months), the Q perspective team worked on finalizing the assignment and producing the final versions of the value chain mapping and clusters, and developed and finalized the detailed action plans, budgets and bills of quantities for the socio-economic projects and the water pilot action in Jordan and Tunisia. Furthermore, intensive engagements with the major stakeholders for the socio-economic project and water pilot action in Jordan were conducted, including workshops in Jordan and Karak. Major stakeholders were oriented and trained on different aspects of value chain analysis and clustering, prioritization of major activities, prioritization and finalization of results-based budgets, and development of detailed action plans. The delineation of roles and responsibilities for activities, tasks, and budget allocations was also conducted through close coordination and intensive participation of the major stakeholders.

High level meetings with decision makers at the major stakeholder level were conducted to ensure full understanding of the role of each stakeholder, to ensure expectations from Minaret consortium implementing partners were realistic, and to receive commitments from each major stakeholder on the dedication of expertise, level of effort and time to the project they are involved in. Mechanisms for coordinating implementation activities amongst partners were established to ensure smooth implementation.

Important notes regarding delay in finalization of the assignment: There are three main developments that happened during the finalization stage that imposed delays on the project; those points were the subject of discussion and deliberation with Horizons and other Minaret consortium partners:

- 1- Departure of the Minaret project Manager: The Minaret project Manager at RSS-NERC left the project in May, 2019.

How this impacted the project: This caused delays to the process of developing the terms of reference for the technical implementing partner for the water pilot action (as mentioned in the third report). As such, internal approvals at RSS-NERC and approval of the donor to incorporate the National Agricultural Research Center (NARC) as a technical implementing partner for the water pilot action were not conducted within the finalization time of this assignment. Nonetheless, the Q perspective expert team extensively worked in the meanwhile with NARC on developing and advanced version of the water-pilot action value chain map, on expanding the concept note for the nurseries project into a value-chain based detailed project document, and assisted RSS-NERC in June 2019 in finalizing the terms of reference for the water pilot-action technical partner.

As such, the second half of June 2019 involved intensive work to finalize the design of the water pilot action in Jordan with all major stakeholders and culminated in the production and approval of the final design documents, and the relevant contracting processes were initiated by RSS-NERC.

- 2- Tunisia delays: Agreements to dedicate a piece of land by the municipality of Monastir to Notre Grande Bleu for the purposes of the socio-economic project

of Minaret, as well as agreements between major stakeholders in the same project that were drafted and fine-tuned during the field visit to Tunisia were not signed during this reporting period. As such, it was not possible to engage in detailed design work related to action and budget planning for the socio-economic project in a manner that allows for clear distribution of actions and allocation of budgets amongst the different stakeholders of the socio-economic project. If and when agreements are signed, the process of developing the required level of details for the budget and the action plan, including the delineation of roles can be implemented quickly in the presence of all major implementing stakeholders. Templates produced for the socio-economic project in Jordan can be easily adapted and used, especially that there are many commonalities between the socio-economic project in Tunisia and the socio-economic project in Jordan.

Not Regarding the water pilot action in Tunisia: As mentioned in previous reports, the water pilot action in Tunisia is a simple straightforward water harvesting system for the municipal stadium. The action does not justify a full value chain process and is a straightforward direct contracting effort. Nonetheless, it is in line with NEXUS parameters and presents opportunities through the water savings gained through its implementation. A summary of the benefits and opportunities of the water harvesting tank are detailed in the Tunisia section below.

Jordan overview: As first month of the finalization of the assignment intersected with the Holy month of Ramadan, Q perspective expert team efforts concentrated on developing the final detailed drafts of the elements of the water pilot action and the socio-economic project in Jordan. The stakeholder engagements during May and the first half of June, 2019 were limited due to the short working days and the absence and travel of many of the relevant team members of the major stakeholders. Nonetheless, engagements over the phone and where possible, in person were conducted with Mumia Cooperative Society and with NARC to ensure that the detailed elements of the design were concurrent, realistic and responsive to NEXUS parameters.

After the end of Eid Al Fiter, extensive preparations and execution of final stakeholder engagements and workshops for the finalization of the assignment in Jordan were conducted. A workshop at RSS-NERC was conducted with NARC and Minaret consortium members to bring the water pilot action value map to a semi-final format, and to fine tune and bring to a semi-final draft the detailed action plan and budget.

A similar workshop was conducted at Q offices with members of the Mumia Cooperative Society, and the Minarets' projects' selection and prioritization workshop was conducted for all major stakeholders in Karak, involving a large number of relevant Greater Karak Municipality staff.

All final feedback from all stakeholder engagements were incorporated into producing the final documents for the Jordan socio-economic project and water pilot action. Those are included in this report.

Tunisia overview: Following the second field visit to Tunisia, the Q perspective team worked on developing advanced versions of the value chain map and cluster for the socio-economic project in Tunisia. It was anticipated that the legal frameworks required to implement the socio-economic project would be finalized during the reporting period so that detailed design actions can commence, but constant communication by the Horizon team with Tunisian stakeholders did not culminate in formal agreements. Q perspective expert team were informed to work with what they have until the issue is resolved.

Horizons team members moved in parallel to finalize the architectural design and the costing of the setup of the proposed socio-economic project in Tunisia. The results of this process are also presented in this report.

Finalization period:

1.1: Finalization of assignment as it pertains to the Jordan Socio-economic project:

Several meetings and field visits regarding the socio-economic project were conducted during the reporting period culminating in the development of final versions of different design elements (value chain map, cluster detailed maps, detailed action plans, detailed budgets, detailed capacity building requirements and recommended capacity building programs and advanced recommended eco and adventure tourism packages).

Specifically, stakeholder engagements related to the socio-economic project in Mumia during the reporting period are:

Wednesday May 15, 2019: Field visit to Mumia: A field visit to Mumia Cooperative Society was conducted by Q expert team to observe developments on the ground and to work on further identifying cost elements and where required, bills of quantities for the socio-economic project in light of the recent updates to the value chain map.

Main highlights of the meeting:

- Updated versions of the value chain map and clusters were explained to Mr. Jaafreh.
- Mr. Jaafreh explained that he understood the documents and provided valuable inputs. He mentioned that the issue of the refurbishment of the renovated homes at the old village was a priority, as well as finishing the remaining infrastructure and landscape work.
- Mr. Jaafreh informed the team that he was working on getting additional funding from the small JEF fund as well as from JOHUD-lead GIZ project implemented by GOPA whom they have been working on over the past years.
- Mr. Jaafreh was presented with bills of quantities for a full industrial kitchen but he insisted that a regular kitchen would be sufficient and that savings could be used in refurbishing the other operations as well as buying some adventure tourism equipment and tools deemed necessary for the tour.

- It was agreed that Mr. Jaafreh will work on identifying the specifications of all procurement required and will be assisted by Q perspective team members during the coming period.

Sunday 16 June,2019: Meeting at Horizons office for realignment and agreement on next steps towards finalization.

Q expert team met at Horizons offices to discuss finalization of the assignment.

Main highlights of the meeting:

- Mr. Rami El-Akhras explained the circumstances of the delays as they relate to the departure of the Minaret project manager, the low productivity during the Holy Month of Ramadan, and the situation in Tunisia where major stakeholders to the socio-economic project have still not signed the required legal agreements agreed upon during the last mission to Tunisia.
- Mr. El-Akhras explained that RSS-NERC are in the process of hiring a new manager, and that they had not developed the full terms of reference for water pilot action, a necessary step to gain internal and donor approvals to incorporate NARC. He mentioned the RSS-NERC expected Q perspective to develop the terms of reference.
- Yazan Majaj of Q perspective explained that the agreement with RSS-NERC was for Q perspective to work with NARC on developing the duties and responsibilities of NARC only, and that RSS-NERC were supposed to share the TOR draft, upon which Q perspective will incorporate the duties and responsibilities of NARC and send a semifinal version to RSS-NERC so that they finalize the TORs and share them with NARC.
- Q perspective also explained that during the past period, they have collaborated with NARC on expanding and detailing the design documents related to the water pilot action while the TORs are being finalized. The outcomes of that work will expedite the process of NARC's responding to the TORs and moving towards finalization.
- Regarding the socio-economic project in Jordan, a discussion on how to work on finalizing the project yield concrete action points.
- Both parties agreed to the following:
 - a- Mr. El-Akhras will contact RSS-NERC and convey Q perspective offer to help them with the full process of developing the TORs (this happened during the following week).
 - b- Q perspective will work with Mumia Falls Cooperative Society on detailing and finalizing all aspects of the value chain mapping and all relevant design elements (detailed action plans and budgets).
 - c- Two workshops will be held on Thursday June 27,2019 in Karak with relevant major stakeholders attending each workshop (one for the socio-economic project and one for the water pilot action) where final fine tuning of both projects as well as the selection and prioritization of activities for both projects will be conducted. The final deliverables for the assignment will be conducted based upon the workshop.

- d- Regarding Tunisia, it will be put on hold until clarity is gained on how to move forward. Nonetheless, Q perspective will work on preparing the details that would eventually be filled out in collaboration with the socio-economic project stakeholders in Tunisia, and Horizons will work on the final architectural design and costing of the socio-economic project.
- e- Regarding the water pilot action in Tunisia, it was again reiterated that it will not require the full value chain process and that all efforts would be directed towards the socio-economic project as per the above limitations.

Monday 17 June, 2019: A conference call was conducted between Q expert team and Mr. Rami Jaafreh to work on finalizing the socio-economic project design and to discuss the upcoming project selection and prioritization workshop in Karak.

Main highlights of the conference call:

- Mr, Jaafreh informed the expert team that they received an additional 5,000 JDs through JOHUD and GOPA and are using it to finish the tiling of the old village locations as well extending all electric wiring.
- We agreed that he will send the Q expert team detailed bills of quantities for furniture for the restaurant and accommodations areas, kitchen equipment and tools, and requirements for setting up a tent camp near the old houses (in the olive grove), and/or in the cave in the land he owns where he has already been receiving overnight tourists.
- Mr. jaafreh informed the Q expert tam that he confirms the attendance of Mumia Cooperative Society in the proposed workshop next Thursday June 27,2019. (workshop was later postponed to Thursday July 4,2019 based on the need to conducted a water pilot action workshop with RSS-NERC and NARC before proceeding with the Karak project selection and prioritization workshop for both the socio-economic project and water pilot action in Karak).
- Mr. Jaafreh mentioned that they might also be receiving additional funds from the "small GEF fund" and we agreed that whatever is covered through other parties will allow for funds to be used for other stages of the value chain and for the clusters and prospective collaborations with qualified and interested implementing partners like Caritas Jordan and the Karak Women Cooperative.
- Mr. Jaafreh informed the Q perspective expert team that there are six women members of the cooperative society who can work in the different stage activities of the Mumia value chain, including but not exclusive to, reception, food preparation, fresh juice preparation, sales, housekeeping, bookkeeping and any other functions that would be required for operating the final agreed upon activities. He will provide a list of their names and a short bio (or a CV on each of them by the end of the week). He also informed me that three of the women are members of board and if the collaboration happens, they will not run for another term during the elections in September.

-Mr. Jaafreh also accepted an invitation to spend the day at Q offices the following week to finalize the detailed action plan and budget (detail the bills of quantities as well as the cost allocations for the entire project as per the updated value chain map).

Thursday July 4, 2019: Socio-economic project finalization of detailed value chain map and clusters, action plan and budget, and selection and prioritization of final activities and budget details.

Main highlights of the workshop:

- Representatives of all stakeholders of the socio-economic project attended the workshop (Mumia Cooperative Society, JOHUD Karak Center, Greater Karak Municipality and Minaret Consortium members).
- The semi-final version of the value chain map and clusters was presented. An ensuing discussion on the map and clusters provided final adjustments, and value chain activities and clusters were prioritized as per the following:

Inputs stage:

Infrastructure sub stage activities: All activities were seen as a first priority.

Operational Infrastructure sub stage activities: Kitchen refurbishment and furniture for accommodations, restaurant and showroom received first priority. Installing a shaded area for the space in front of the old houses received second priority. Stables for twenty animals to be used in the excursion was removed entirely.

It was agreed amongst all that a photovoltaic system will be added to the activities at the operational infrastructure stage to be installed above the shaded area in front of the old houses with an estimated budget of JD 4,000.

It was also agreed that a signage system leading to the old village, within the village and also throughout the eco-and adventure tourism track in Wadi Al Karak would be added to the project and budgeted for.

Provision of water sub stage: Received first priority.

Provision of energy for lighting and heating: Received first priority.

Marketing stage:

First priority: Social and digital media activity.

Second priority: Publications activity.

Third priority: Video activity

Process stage (all the clusters included in this stage) :

First priority: Kitchen.

Second priority: Restaurant.

Third priority: Accommodations.

Fourth priority: Deli.

Fifth priority: Souvenir shop.

At this point, it was agreed that the rest of the stages and activities will be prioritized and implemented directly by Mumia Cooperative Society as the available budget through Minaret will barely be sufficient to cover the above.

- The role of Greater Karak Municipality in the socio-economic project was discussed, and the following points were raised. The municipality agreed to collaborate with Mumia Cooperative Society on facilitating all agreed upon points.
 - a- Issuing municipality licenses for water and electricity.
 - b- Issuing municipality licenses for accommodations and for serving food.(Vocations and artisans license for each.)
 - c- Maintenance and upgrade of road leading to the old village.
 - d- Paving the parking at the entrance of the village to serve as a parking space.
 - e- Providing approvals for road signage and assisting in putting the signs up as per the standards of Greater Karak Municipality.
 - f- Collaborating with the water pilot action on providing seedlings and other agricultural products from the project to be used in landscaping of the socio-economic project. The plants would be provided at a highly discounted rate or even for free.

It was agreed that members of Mumia Cooperative Society will systematically follow up with relevant municipal divisions in the coming period to ensure all of the above points are implemented.

Thursday July 11, 2019: Full day workshop regarding socio-economic project at Q perspective offices: Mr. Rami Jaafreh visited Q offices in the early morning and spent the day with the Q expert team.

Main highlights of the workshop:

- Following up on the workshop on July 4, 2019 , the final detailed action plan as per the final value chain was developed, and a clear time frame for all activities and tasks was developed with clear delineation of roles.
- The final detailed budget was also developed with final thorough identification of items, specifications, bills of quantities and realistic cost estimates as well as actual price quotes received from different vendors.

Wednesday July 17,2019: Budget finalization meeting at Horizons office. Mumia Falls Cooperative Society president Rami Jaafreh joined the Q perspective expert team lead at a workshop at Horizons offices to produce the final approved budget for the socio-economic project in Mumia. The final value chain map, action plan and budget were shared with Horizons based on the full day workshop held at Q perspective on Thursday July 11,2019.

Main highlights of the meeting:

- A thorough discussion of each budget item was conducted, lead by Mr. Rami El-Akhras.
- There were some changes in actual cost estimates throughout the budget. Additional budget items were also incorporated while others were deleted.
- A draft of the final version was produced and shared with Q perspective with some minor requests for amendments and comments. (those were finalized and shared with Horizons, and formal agreements and implementation of the socio-economic project commenced closely after).

1.2: Finalization of assignment as it pertains to the Jordan water pilot action:

The finalization stage for the water pilot action in Jordan was challenging; several delays occurred as explained in the overview, but the challenges and delays were overcome and the water pilot action assignment was successfully included.

The step-by-step process for finalizing the design of the water pilot action are:

Q perspective worked with NARC on detailing the concept note for the nurseries water pilot action as per the value chain approach. It was agreed, in alignment with all other stakeholders, that the second project (public park/garden using treated waste water) was not a priority, and if sufficient funding was provided at the final stage, it would be incorporated within the nursery project as the dedicated space of 5,000 m² for the nurseries project would logically allow for a small public park/pilot within the same premises and will significantly reduce the related setup and operational costs. (This was based on a meeting with Greater Karak Municipality at Horizons office during the third reporting period and detailed in the third technical report).

A detailed draft of the value chain map for the nurseries project was produced and finalized through two main workshops, one between the Minaret consortium partners and NARC on Thursday June 27, 2019 and the second involving all major stakeholders (adding the Greater Municipality of Karak) on July 4, 2019.

A detailed action plan and budget template was developed. Both were filled out to a semi-final draft during the June 27th workshop and finalized during the July 4th workshop.

As the steps below were being implemented, parallel steps were also being undertaken as below:

Terms of Reference for incorporating NARC as a technical implementing partner in the water pilot action were developed, reviewed, finalized and issued to NARC. Q perspective expert team worked with NARC and RSS-NERC throughout the process to ensure that the TORs are comprehensive, reflective of the capacities of all parties, and sufficient for RSS-NERC to include in the internal and donor requests to add a new technical implementing partner to the water pilot action.

Following up on engagements with RSS- NERC during the third reporting period, the energy pilot action was integrated into the water pilot action as part of the value chain

map, the action plan and the budget. This is reflected in the final version of all three documents.

A technical and financial proposal responding to the TORs issued by RSS-NERC was prepared and submitted by NARC within the deadline stipulated in the TORs. Q perspective expert team worked closely with NARC on developing the technical and financial proposal.

Stakeholder engagements related to the Jordan water pilot action:

Thursday 27, June 2019: Technical planning and design workshop at RSS-NERC: A workshop comprising all members of Minaret consortium team (RSS-NERC, Horizons and IUCN) with the tentative new technical implementing partner (NARC) was organized at RSS-NERC.

Main highlights of the workshop:

- Q expert team presented the detailed value chain map and proposed delineation of duties and responsibilities amongst major stakeholders. A thorough discussion followed whereby RSS-NERC provided in-depth technical inputs to integrate the energy pilot action within the Water pilot action. The elaborate feedback, through in-depth technical discussion with NARC team member, provided direct feedback on adding value chain sub stages and major activities on the value chain map. These need to be reflected by the Q perspective expert team in the updated final draft of the value chain map, in the detailed action plan and the detailed budget.
- The detailed action plan exercise was thoroughly discussed. Feedback on the modification and fine tuning of major activities, tasks, delineation of roles and responsibilities, and on designating a realistic time frame for each activity was provided by participants. Though Greater Karak Municipality did not attend the session as it was a highly technical session, updated semi-final versions of all documents will be discussed during the upcoming design finalization workshop the following week in Karak. The role of Greater Karak Municipality had also been identified and detailed in all the drafts, and a detailed discussion and agreement with them on their role as a project owner as well as a major stakeholder in the project will be elaborately defined during the workshop in Karak.
- The detailed budget template was also thoroughly discussed, and realistic cost estimates were input into the budget. Additional technical specifications related to the additional activities and tasks (mostly energy-related) were defined and cost estimated. As with the above, Q perspective expert team will update and fill all documents in the Arabic language and prepare all necessary material for the design finalization workshop in Karak scheduled for the following week.
- A thorough discussion on the financial and operational feasibility of the project proved valuable insights that would support the access to finance component of Minaret. The proposed water pilot action is very promising as it would provide 2 -3 harvests a year, estimated at 80,000 – 100,000 ready-to-sell

- ornamental and decorative plants during each harvest. The capacity of production as per the detailed design allows for such intensive harvests.
- It was agreed that products would be decorative and ornamental plants. The detailed definition of the varieties under each categories will be done through a scientific consultative process between NARC and Greater Karak Municipality at the first stage of implementation; the municipality would provide details on the varieties, quantities and prices of ornamental and decorative plants they procure throughout the year, and NARC would analyse the data, advise on the best varieties to be included in the project, and also advise on other high value varieties that can succeed in the particular environment of Karak and that are also in good demand and can be sold at a good profit.
 - The process of securing internal and donor approval for incorporating NARC as a technical implementing partner was also thoroughly discussed. RSS-NERC informed NARC that they started the process and that they will share with them the official TORs within a few days. It was agreed that Q expert team would provide the required assistance in both formulating the TORs and in developing a detailed technical and financial proposal that NARC would submit to RSS-NERC. This would ensure proper alignment with the NEXUS and value chain approach, and also upgrade the practical capacities of NARC in proposal writing.
 - NARC were informed that the implementation of the project, if all goes well in the few next week, needs to be done before the end of 2019, but that their involvement in the project beyond 2020 was possible, especially that there is significant knowledge transfer to Greater Karak Municipality staff that was required. As such, NARC need to account for that restriction when developing their proposal.
 - NARC ascertained that they are a non-profit entity that is part of the Jordanian Ministry of Agriculture, but enjoys a high level of independence. An essential part of their mandate is to implement similar projects, and they are not allowed to make profits. They have a highly experienced and significantly large and specialized team that would invest all the required time and effort into implementing the project. NARC also operates an applied agricultural research station in Al-Rabba, Karak, and some of its team members , as well as external workers, will be dedicated to the project full time. They informed all present that there will be no gaps in their presence on the ground (as the senior team members for this particular project would be stationed at NARC's headquarters in Amman).
 - NARC confirmed their attendance at the water pilot action finalization workshop the following week in Karak.

Thursday July 4, 2019: Water pilot action project finalization of detailed value chain map and clusters, action plan and budget, and selection and prioritization of final activities and budget details.

Main highlights of the workshop:

- Representatives of all stakeholders of the water pilot action attended the workshop (Greater Karak Municipality, NARC and Minaret Consortium members).

- The semi-final version of the value chain map produced after the technical workshop at RSS- NERC the previous week was presented. As the value chain was already updated based on the outcomes of the previous workshop, the discussions concentrated on explaining the full scope of the value chain map to Greater Karak Municipality, and on defining the role of the Municipality in the project as the project owner, as the eventual operator, and as a major stakeholder during implementation (before hand-over).

- Greater Karak Municipality emphasized the following points:

a- They will provide in kind support, to the utmost of their ability, and will closely work with RSS-NERC and NARC on providing the required in-kind support according to priorities of the project.

b- The municipality will, if and when the project is implemented, dedicate all necessary staff to receive intensive training during the implementation in preparation for hand-over.

c- The dedicated staff will correspond to the recommended capacity profiles presented by NARC, and will be dedicated to the project on full time bases.

d- The municipality will work closely with NARC and RSS-NERC on all technical details of the project, including but not limited to:

d.1: Identification of all decorative and ornamental varieties to be included in the project.

d.2: Development of the final detailed design of the project, and provision of in-kind support for any infrastructure and operational requirements that fall within the mandate of the municipality.

d.3: Ensure that the Greater Karak Municipality would develop the proper legal and administrative structures to manage the project successfully, and to procure from the project all products, at pre-set quantities and prices, as per the agreed upon varieties and production plan that would be developed during the early stages of implementation. The municipality will pay the fair price for the products and all revenues will be reinvested into the project and, if possible, in NEXUS-compliant actions.

e. The municipal representative were quite keen and clear on understanding the distribution of the Minaret allocated budget as per the detailed budget. They regularly emphasized that they need to review and approve the final detailed budget, and allocations of the project resources, before moving forward.

f. The municipality explained that it understood that the project needs to be established and operational before the end of the year, and that NARC will continue with their work after the end of 2020 to ensure proper transfer of knowledge, successful operations and harvests, and systematic hand-over to municipality dedicated staff.

- Additional entities were invited to attend the workshop by the municipality (please check participants' list). They represent relevant governmental and civil society organizations operating in Karak. All information related to the workshop was not previously shared with them by the Municipality, even though it was shared in advance, but their presence proved useful after they understood the workshop objectives and got a chance to read through the documents.

- It was agreed that RSS- NERC will follow up on all matters related to the project with the Greater Karak Municipality, as it is the water pilot action project lead.

Final deliverables: The following are the final deliverables as per the assignment. Some attachments have been shared in earlier reports but are presented here in their final version.

In some cases, the deliverables have also been translated into the Arabic language. This process was introduced to ensure that all stakeholders of the water pilot action provide feedback and interact with the different stakeholder engagement activities in their mother tongue, and that they proceed with implementing their project using the Arabic language, as many of them are not well-versed in the English language.

1.3: Finalization of assignment as it pertains to Tunisia socio-economic project:

Overview: As of the date of this final report, legal agreements between major stakeholders for the socio-economic project in Tunisia had not been signed.

As the Q perspective team was instructed by Horizons to halt any direct engagements with stakeholders in Tunisia until contracts are signed, the Q perspective expert team concentrated on the Jordan socio-economic project and produced the required templates that could be easily adapted and used if and when the Tunisia stakeholders decide to move ahead with the socio-economic project. Moreover, the Q perspective team developed a detailed value chain map with clear delineation of roles amongst major stakeholders based on the outcomes of the two missions conducted as part of this assignment. One cluster related to the nature shop "Dukkaneh" also logically presented itself and a detailed cluster map was produced for it.

1.4: Finalization of assignment as it pertains to Tunisia water pilot action:

The water harvesting tank serving the stadium of the municipality will serve to harvest significant amounts of water that will be used to irrigate the natural grass of the stadium.

All design and costing related works were conducted by Horizons, and as mentioned previously, value chain based design is not possible for this project as it is a simple activity.

Below are recommendations for the overall management of the project:

- Developing a mechanism to monitor actual financial savings incurred by implementation and operationalization of the tank.

- Reaching agreement prior to implementation with the municipality on dedicating savings from the project towards NEXUS-related activities. As the action requires negligible operational expenses, savings could be used to expand the project capacity, incorporate a photovoltaic pumping system, or initiating NEXUS related projects in other areas in Monastir.
- Depending on the financial savings, it might be possible to also design an integrated project serving the stadium itself, whereby the project can incorporate more intensive energy-saving systems across the whole operations of the stadium. It is possible to build an operational structure were the lit stadium is rented out during off-season evenings, as the electricity costs could drop significantly, creating attractive profit margins. This means that an integrated NEXUS approach around the stadium could be developed gradually where water, energy and economic security components are addressed. In an ideal case, this could become a national model (a stand-alone case study) that could be shared with other municipalities and athletic facilities operators in Tunisia.

Final deliverables: The following table categorizes and explains the final deliverables as per the assignment. Some annexes have been shared in earlier reports but are presented here in their final version.

In some cases, the deliverables have also been translated into the Arabic language. This process was introduced to ensure that all stakeholders of the socio-economic project and water pilot action in Jordan provide feedback and interact with the different stakeholder engagement activities in their mother tongue, and that they proceed with implementing their project using the Arabic language, as many of them are not well-versed in the English language.

Table of Final Deliverables:

Annex Code	Annex Title
CB	Capacity Building Related Annexes
Annex CB SEJ 1	Training needs and recommended capacity building programs for Jordan Socio economic project main stakeholder May 2019
Annex CB SET 1	Training needs and recommended capacity building programs for Tunisia Socio economic project main stakeholders June 2019
Annex CBG 1	capacity building initial recommendation 1 march 2019
Annex CBG1.1	Aggregate recommendations for capacity building activities for socio economic projects in jordan and tunisia july 2019
GXP	Integrated NEXUS and Value Chain Parameters Related Annexes
Annex GXP1	Minaret generic value chain parameters 4 may 2019
Annex GXP2	Minaret Value chain parameters compliance measurement template sheet 4 may 2019
LR	Literature Review Related Annexes
Annex LRJ	Jordan Literature Review
Annex LRT	Tunis literature review February 2019
SEJ	Jordan Socio-Economic Project Related Annexes
Annex SEJ 1	Mumia tour packages first draft 26 February 2019
Annex SEJ 1.1	Updated Mumia tour packages english langue and write up April 2019
Annex SEJ 1.1A	Updated Mumia tour packages Arabic May 2019
Annex SEJ 2	Mumia socio-economic project draft logical framework February 2019

Annex SEJ 3	initial mapping of mumia eco-tourism project value chain february 2019
Annex SEJ 3.1A	Updated Mumia value chain and relevant suppliers and stakeholders map Arabic May 2019
Annex SEJ 3.1	Final Mumia value chain and relevant suppliers and stakeholders map English July 2019
Annex SEJ 3.1	Updated Mumia value chain and relevant suppliers and stakeholders map English April 2019
Annex SEJ 3.1.1	fresh juice cluster detailed map English April 2019
Annex SEJ 3.1.1A	fresh juice cluster detailed map Arabic 24 June 2019
Annex SEJ 3.1.2A	traditional snacks cluster detailed map Arabic June 2019
Annex SEJ 3.1.2	traditional snacks cluster detailed map English April 2019
Annex SEJ 3.1.3A	traditional meals cluster detailed map Arabic 23 June 2019
Annex SEJ 3.1.3	traditional meals cluster detailed map English April 2019
Annex SEJ 3.3.4	hot drinks cluster detailed map English April 2019
Annex SEJ 3.3.4A	hot drinks cluster detailed map Arabic 2019
Annex SEJ 3.3.5	souvenirs cluster detailed map English April 2019
Annex SEJ 3.3.5A	souvenirs cluster detailed map Arabic June 2019
Annex SEJ 4	Description of Mumia eco tourism project VC and clusters March 2019
Annex SEJ 5	Arabic Agenda water pilot action and socioeconomic project selection and prioritization workshop in karak on 26 June 2019
Annex SEJ 6	karak Socioeconomic project workshop participants list 4 July 2019
Annex SEJ 7	Semi Final Detailed budget socio economic project 11 July 2019
Annex SEJ 7.1A	Final Detailed budget socio economic project Arabic 11 July 2019
Annex SEJ 8A	Final Detailed action plan socio economic project Arabic 11 July 2019
Annex SEJ 9	karak Socioeconomic project workshop participants list 4 July 2019
SET	Tunisia Socio-Economic Project Related Annexes
Annex SET 1	Initial concept note monastir socioeconomic project March 2019
Annex SET 2	Tunisia logical framework March 2019
Annex SET 3	detailed value chain and stakeholder mapping Tunisia May 2019
Annex SET 3.1	Nature hub dukkaneh cluster map English June July 2019
Annex SET 4.1	Ground floor plan for proposed site in Monastir
Annex SET4.2	First floor plan proposed site in Monastir
Annex SET 4.3	Table of surfaces
WPJ	Jordan Water Pilot Action Related Annexes
Annex WPJ 1-1	upstream and down stream lajjoun water tests Feb 20,2019
Annex WPJ 1-2	continued upstream and down stream water tests lajjoun feb 20,2019
Annex WPJ 3	lajjoun lands owned by Greater Karak Municipality topograhpy and plotting February 2019
Annex WPJ 4-1	nurseries project inital concept idea February 2019
Annex WPJ 4-1.1	nurseries project detailed concept April 2019
Annex WPJ 4-2	map of proposed sites for nursery and park proposed projects lajjoun March 2019
Annex WPJ 5-1	park project using treated water concept March 2019
Annex WPJ 5-1.1	park project using treated water detailed concept April 2019
Annex WPJ 5-2	high level design for garden park project march 2019
Annex WPJ 6	Justification for partnering with National Center for Agricultural Research May 2019
Annex WPJ 7	Draft Technical Duties and responsibilities of NARC May 2019
Annex WPJ 8	Final TOR for Pilot action in Karak -WEF Final edits without track changes1 July 2019
Annex WPJ 9	Final Technical and financial proposal NARC edits without track changes1 July 2019 project technical and financial proposal final 14 July 2019

Annex WPJ 9.1	Detailed financial proposal NARC 1 July 2019
Annex WPJ 10.1	Semi Final Draft Water pilot action value chain map and detailed stakeholder map and roles 26 June 2019
Annex WPJ 10.1A	Semi Final Draft Water pilot action value chain map and detailed stakeholder map and roles Arabic 24 June 2019
Annex WPJ 10.2	Final Water pilot action value chain map and detailed stakeholder map and roles 1 English July 2019
Annex WPJ 10.2A	Final Water pilot action value chain map and detailed stakeholder map and roles Arabic 30 June 2019
Annex WPJ 11	English Agenda workshop with NARC at RSS NERC June 27, 2019
Annex WPJ 12	Activity based detailed budget exercise for technical workshop at RSS lajjoun nursery project Arabic June 24 2019
Annex WPJ 12A	Activity based detailed work plan exercise for technical workshop at RSS lajjoun nursery project Arabic 25 June 2019
Annex WPJ 13	Activity based detailed budget lajjoun nursery project June 2019
Annex WPJ 13.1	Lajjoun nurseries project detailed action plan and stakeholder specific roles June 2019
Annex WPJ 14	Activity based detailed budget exercise for technical workshop at RSS lajjoun nursery project June 24 2019
Annex WPJ 14.1	English updated Activity based detailed budget lajjoun nursery project 30 June 2019
Annex WPJ 15	English invitation and Agenda water pilot action and socioeconomic project selection and prioritization workshop in Karak English draft on 26 June 2019
Annex WPJ 15A	Arabic invitation and Agenda water pilot action and socioeconomic project selection and prioritization workshop in Karak draft on 26 June 2019
Annex WPJ 16	Activity based detailed budget exercise for technical workshop in Karak on 4 July lajjoun nursery project 1 July 2019
Annex WPJ 16A	Activity based detailed budget exercise for technical workshop in Karak on 4 July lajjoun nursery project Arabic 1 July 2019
Annex WPJ 17	English updated Activity based detailed action plan and stakeholders detailed roles lajjoun nursery project 29 June 2019
Annex WPJ 17.1A	Activity based detailed workplan lajjoun nursery project July 2019
Annex WPJ 17A	Activity based detailed workplan exercise for technical workshop in Karak on 4 July lajjoun nursery project Arabic 1 July 2019
Annex WPJ 18	Water pilot action workshop participants list 4 July 2019