



- 
Manouba Municipality
Raoued Municipality
- 
Ajloun Municipality
Ma'an Municipality
- 
As Semqaniyyeh Municipality



First Progress Report

2021-2022

Table of Contents

<i>Table of Contents</i>	2
EXECUTIVE SUMMARY	4
1. PROJECT OVERVIEW	7
<i>Section One</i>	11
REALIZED vs. PLANNED 2021 - 2022	11
1.1 Overall Achievements by Pillar Component.....	12
<i>Section Two</i>	15
<i>Project Implementation</i>	15
2. Project Activities	16
2.1 Project Commencement	16
2.2 Criteria Development.....	19
2.3 Identifying Municipalities and Securing Commitment.....	20
2.4 Establishing an Appropriate Governance Structure	22
2.5 Baseline Emission Inventory Development	23
2.4 Identifying and Engaging Stakeholders	26
3. Progress in TUNISIA	32
3.1 Field Visits (BEI Data Analysis)	32
<i>Section Three: WAY FORWARD</i>	37
.....	39
.....	40
.....	40
4. HIGHLIGHTS 2022	41
4.1 Social Media.....	41
4.1 Access to Finance Consultancy.....	41
5. Challenges	41
5.1 Institutional Challenges	41
5.2 Environmental Challenges	42

LIST OF ABBREVIATIONS

MINARET	The MENA Region Initiative As a Model of NEXUS Approach and Renewable Energy Technologies
MENA	Middle East and North Africa
RSS	Royal Scientific Society
NERC	National Energy Research Center
SDG	Sustainable Development Goals
NGO	Non-Governmental Organization
CoM	Covenant of Mayors
WEF	Water, Energy and Food
BEI	Baseline Emission Inventory
GHG	Greenhouse Gas
SECAP	Sustainable Energy and Climate Action Plan
LED	Light-Emitting Diode
PV	Photovoltaic
EE	Energy Efficiency
RE	Renewable Energy

EXECUTIVE SUMMARY

Countries in the (MENA) region are faced with the challenges of a growing population, high unemployment, surging demand for electricity, and limited investments in new generation capacity, and in certain countries limited or no supply of indigenous hydrocarbon resources. In particular, Jordan, Lebanon and Tunisia currently face acute scarcity of energy and water resources, fast growing population and exhibit an ever-greater demand for energy to fuel their social and economic development. The issues in these three countries have been exacerbated by the influx of significant numbers of refugees, resulting from the continuing Syrian crisis (Jordan and Lebanon), as well as political and economic instability in various countries (Tunisia and Lebanon) and Covid-19.

To face these challenges, "The MENA Region Initiative as a model of the NEXUS Approach to Renewable Energy Technologies" (MINARETII), is designed to address the unique sustainability challenges and opportunities for MENA region by increasing local and regional sustainability capacities using the synergies between renewable energy technology and efficiency, water management and food security. This project is funded by the government of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and is being implemented by the Royal Scientific Society/National Energy Research Center (RSS).

MINARET project is enhancing the municipal resilience to climate change through RE/EE technologies, water management techniques and food security approaches, strengthening the municipal institutional capacities, promoting inter-municipal regional cooperation, enhance the good governance, and developing better understanding of NEXUS approach through developing a sustainable energy and climate action plan.

The project implementation process started as planned in November 2021. Starting by developing criteria for choosing the municipalities, identifying municipalities and securing commitment, then validating with municipalities the baseline emission inventory development process that will feed into the SECAP report. Then, the project will proceed with registering the targeted municipalities in Jordan, Lebanon, and Tunisia in the Covenant of Mayors. The project will also improve people's lives through equipping the municipalities with the tool and capabilities to secure climate investments.

Many challenges were faced by the project, such as data collection difficulties, lack of interest, political and economic unrest, different regulation in different countries and the consequences of COVID-19, however, suitable measures were taken to mitigate and tackle each of these challenges which helped to overcome them and achieve the desired outcome.

1. PROJECT OVERVIEW

Context and Overall Objective:

Access to natural resources and healthy ecosystems is essential for human wellbeing, dignity and sustaining livelihoods. Sustainable natural resource management is, however, highly complex and today's water, food, and energy availability and accessibility challenges are multifaceted. Climate change, the exploitation and degradation of scarce natural resources and the environment as well as population growth and socio-economic dynamics are putting at risk the ability to provide water, energy and food security for all, while staying within the ecological and planetary boundaries. The Water, Energy, Food security and Ecosystem Nexus approach represents a paradigm shift from sectoral development interventions towards an integrated resource-use approach, acknowledging the intricate interlinkages that arise in the usage of the resources. The Nexus approach seeks to identify possibly negative trade-offs and identify measures to maximize synergies where possible. Early work in the first phase of the project has focused on applying a set of context-specific critical interlinkages between water, food and energy used as inputs into systems for providing essential services to habitants. These natural resources were deeply intertwined and interconnected to come out with NEXUS model that was locally and regionally applied in municipalities (Jordan, Lebanon and Tunisia) for the purpose of obtaining a value and determining the future needs. In addition, MINARET succeeded to understand the developmental and consumer role of municipalities, their core mandate, opportunities, as well as challenges in order to catalyse municipalities to apply NEXUS thinking to increase resource efficiency and improve the livelihood and resilience of citizens within municipalities.

The challenges faced on a national level in all three countries trickle down to the municipal level. All municipalities surveyed experience a remarkable population growth within the same range in all three surveyed countries. The tradition top-down decision making and delivery mechanism without the involvement of relevant stakeholders when determining how to secure funds and opportunities. The next step is to develop a model that combines the existing asset base and associated revenue streams with the capital and operating requirements going forward, and to apply the principles in determining how these could be financed.

Early work in the first phase of the project has focused on applying a set of context-specific critical interlinkages between water, food and energy used as inputs into systems for providing essential services to habitants. These natural resources were deeply intertwined and interconnected to come out with NEXUS model that was locally and regionally applied in municipalities (Jordan, Lebanon and Tunisia) for the purpose of obtaining a value and determining the future needs. In addition, MINARET succeeded to understand the developmental and consumer role of municipalities, their core mandate, opportunities, as well as challenges in order to catalyse municipalities to apply NEXUS thinking to increase resource efficiency and improve the livelihood and resilience of citizens within municipalities.

The results of the assessments conducted during the implementation of phase I showed that municipalities face several challenges due to the increased stress on natural resources and infrastructure in the area, and the limited availability of resources. Noting, for example, that energy and water grids are old and require repair and upgrading.

RSS commits to continue its work to strengthen municipal governance structures and capacities through the MINARET II initiative “Empowering Municipal Self-Governance towards Climate Resilience”. In MINARET II, RSS will work in Tunisia, Egypt and Jordan and will spread the approach to 1-2 new municipalities per selected country. As in MINARET I, the main beneficiary will be municipalities, in particular their departments related to water, energy and food security as well as combating the effects of climate change. In MINARET II, RSS will also collaborate with a business development organization (either internal at RSS or external) in order to promote WEF Nexus solutions among private sector actors in the territorial mandate of the respective municipalities. On top of this, MINARET II seeks a strong dialogue with financiers and aims at strengthening municipal capacities in the field of investment planning in order to secure sufficient funding for identified actions.

MINARET II aims to improve people’s lives by helping municipal governments to secure the funds and develop the skills they need to deliver high-quality public services, in particular with regard to natural resources management. The project intends to build the involved municipalities’ resilience to climate change by adopting renewable energy resources, energy efficiency practices, water management techniques, and food security tools. In addition, through promoting policy dialogue, implementing capacity-building programs as well as providing inter-municipal regional cooperation to enhance good governance, the project in its second phase attempts to strengthen the institutional capacities of relevant governmental authorities involved in the project. Using a participatory approach, project stakeholders and partners developed the NEXUS Model, for use in building several demonstration projects, which were designed to respond to the needs of the municipalities and to ensure an improved sustainable livelihood status

MINARET II with its innovative tools continues to improving living conditions for people affected by environment and climate change through environmental improvement, reduced climate impact and increased resilience to environmental impacts, climate change and natural disasters. It offers a framework of a coherent and inclusive regional strategy to support local authorities, municipalities, the community-based organizations and civil society in promoting renewable energy and energy efficiency, clean water accessibility and food security by applying the “NEXUS” approach. NEXUS schematically achieves a sustainable livelihood where a household achieves “well-being”; this means:

1. **Survival:** households have secure access to basic services (e.g., food, water, and energy) to sustain their primary needs.
2. **Well-being:** The next step for households to secure access to additional important (e.g. job access) that improve their lives and make them less vulnerable to sudden shocks (e.g., economic, climate change).

The primary objective of the Project “*Empowering Municipal Governance for Climate Resilience Using the WEF Nexus Approach*” to improve people’s lives by helping municipal

governments to secure funding and develop the skills they need to deliver high-quality services, in particular with regards to natural resources management. This overall objective is defined by the following benchmarks:

- ✓ Municipal Action Plans aimed at climate resilience and integrated natural resources management (via cross-sectoral working groups) are developed
- ✓ Results and lessons-learned from cross-sectoral planning and project development in the context of climate change are disseminated to the national and regional level/
- ✓ Funding is secured for integrated projects targeted at climate resilience facilitated through an increased dialogue between financiers and public and private project developers, capacity development and targeted advisory support.

In order to achieve this objective, the following measures are planned to be undertaken:

Component One:

- Identify, collected data and develop baseline for energy, water, food/agriculture, transportation & GHG emissions at the national and municipal level and consult stakeholders for validation.
- Conduct WEF Nexus training (how to integrate cross-sectoral planning into Action Plan development and other relevant processes and identification tools.
- Develop SECAP technical plan through a cross-sectoral working group and using the spatial planning/landscape approach, including an implementation and monitoring and evaluation plan.
- Conduct consultation workshops in each municipality in Jor, Tun, Leb to validate and update the final SECAP Report.
- Register for the Covenant of Mayors (COM) membership.

Component Two:

- Support multi-stakeholder policy dialogue and knowledge transfer through networking events between municipalities in a country, between municipalities and associated ministries at national level as well as at regional events through the League of Arab States.
- Develop municipal-led communication Action Plans
- Conduct WEF Nexus training at national level (as part of the policy dialogue) (1 advanced training/each municipality)
- Conduct WEF Nexus training at national level (as part of the policy dialogue) (1 advanced training/each municipality)

Component Three:

- Conduct a capacity needs assessment of municipalities with regards to investment planning and project development.
- Conduct the affiliated capacity development event.
- Provide targeted advisory support to the beneficiary group (municipalities) for the development of the SECAP
- Plan (providing advice and technical assistance on the financial feasibility of the projects; identification of adequate business models; identification of measures to create an enabling

- environment for public sector engagement) and support the beneficiary group to develop at least 1 project proposal for a WEF Nexus project (deriving from an action in the SECAP) per municipality to present to a financier
- Facilitate dialogue sessions between investors/financiers (local and international) and beneficiary group (as well as other necessary stakeholders from the private and public sector, civil society organization etc) and propose policy actions to accelerate funding/financing of (integrated) projects to strengthen the climate resilience of WEF Nexus projects at a decentralized level

Purpose:

This progress report details MINARET II accomplishments and activities over the period November 2021 to May 2022. All activities identified in this progress report are clearly connected, identified and described directly to support a corresponding objective.

The progress report describes the updated status of objectives and activities during the last updated budget period as reflected in the approved financial plan.

Report Structure:

This report mainly consists of a narrative overview of the activities that have been carried out so far.

Section one presents a detailed overview of the progress achieved under component 1 during the mentioned period. It highlights the achievements at the countries level, compiled in chronological order of the activities and with focus of result to be achieved under each period.

The last section explains the challenges that faced the project during this year.

List of Activities; Described in this report Nov 2021 - May 2022

Section One: Realized vs. Planned 2021 - 2022

Section Two: Project Implementation

1. Project commencement.
2. Project Activities
3. Progress in Tunisia Lebanon and Jordan.

Section Three: Way Forward

Section One

REALIZED vs. PLANNED 2021 - 2022

Completed 

In progress 

Postponed 

1.1 Overall Achievements by Pillar Component

Component 1: Climate resilient municipalities: Membership in Covenant of Mayors - Strengthening municipal capacities to plan and manage climate change adaptation and mitigation measures (development of SECAP)

Overall objective: Initiating the project with the selection of municipalities, hold kick-off meeting to familiarize the municipalities with the project, and setting the proper environment and identifying key factor for effective implementation and proper BEI formulation.

Develop Selection Criteria					
Expected Results	Proposed Activities	Indicators	Accomplished Activities	Timeframe	Status
<ul style="list-style-type: none"> Developed Selection Criteria 	<ul style="list-style-type: none"> Exploring key aspects that are essential for municipalities to participate in SECAP 	<ul style="list-style-type: none"> Selection criteria developed Pre-selection survey in places 	<p>Result (1): Selection criteria and Survey Developed</p>	Nov 2021	

Desktop Research					
Expected Results	Proposed Activities	Indicators	Accomplished Activities	Timeframe	Status
<ul style="list-style-type: none"> Built knowledge and background on municipalities' mandates and services 	<ul style="list-style-type: none"> Desktop Review for all the municipalities 	<ul style="list-style-type: none"> Inputs and overall view for the preparation of the BEI 	<p>Result (1): Data collected from various resources</p>	Nov 2021	

Identify municipalities/ Secure commitment

Expected Results	Proposed Activities	Indicators	Accomplished Activities	Timeframe	Status
<ul style="list-style-type: none"> 5 municipalities identified (1 in Lebanon, 2 in Tunisia, 2 in Jordan) 	<ul style="list-style-type: none"> Communication with several municipalities that meet the initial criteria. Investigating on the municipalities' readiness and will to be involved in Climate Change actions 	<ul style="list-style-type: none"> Official letters were sent by RSS to the identified municipalities 	<p>Result (1): Signing a letter of cooperation from chosen municipalities</p>	<p>Nov 2021 (Jordan & Tunisia)</p> <p>Mar 2022 (Lebanon)</p>	

Hold kick-off meetings with relevant stakeholders

Expected Results	Proposed Activities	Indicators	Accomplished Activities	Timeframe	Status
<ul style="list-style-type: none"> 5 kick off meetings conducted prior and after signing off cooperation letter 	<ul style="list-style-type: none"> Online/ virtual meetings 	<ul style="list-style-type: none"> Meetings were with all the municipalities 	<p>Result (1): All municipalities have developed a clear understanding of the project objectives and activities</p>	<p>Nov-Dec 2021</p>	

Establish Taskforces in each municipality to ensure the continued effective follow upon the SEAP activities

Expected Results	Proposed Activities	Indicators	Accomplished Activities	Timeframe	Status
<ul style="list-style-type: none"> Identified stakeholders and beneficiaries needs, and capacities relevant to the promotion and implementation of sustainable development measures and activities. 	<ul style="list-style-type: none"> Develop NEXUS municipality task force mandates, governance structures & operating procedures 	<ul style="list-style-type: none"> Established and operational task forces at 5 municipalities in Jor, Leb, & Tun 	<p>Result (1):</p> <ul style="list-style-type: none"> National NEXUS & municipalities' players identified and prioritized. Decision maker committees are activated and taking effective role 	<p>Nov-Dec 2021</p> <p>May - 2022</p>	

Assign Project Team & Develop Work Plan

Expected Results	Proposed Activities	Indicators	Accomplished Activities	Timeframe	Status
<ul style="list-style-type: none"> • Technical staff assigned from (RSS) side • Developed work plan & timeline 	<ul style="list-style-type: none"> • Set criteria for the selection of project staff and nominate engineers • Conduct internal meetings to set the scene and agree on preliminary steps • Agree on the appropriate implementation methodology and milestones 	<ul style="list-style-type: none"> • Assignment Letter • MoM • Work plan & timeline in place 	Result (1): <ul style="list-style-type: none"> • Common understanding of the mission established • Roles and responsibilities identified • Work plan and timeline were developed 	Dec - 2021	

Identify Stakeholders

Expected Results	Proposed Activities	Indicators	Accomplished Activities	Timeframe	Status
<ul style="list-style-type: none"> • Identified stakeholders to engage in the SECAP development 	<ul style="list-style-type: none"> • Contact various authorities' public entities and other agencies at the national and regional level within the geographical scope of the project 	<ul style="list-style-type: none"> • Contributions from several stakeholders • Obtained data and statistics • Stakeholder map 	Result (1): Site visits and data collection from different parties	Nov 2021	

Development of Baseline Emission Inventory

Expected Results	Proposed Activities	Indicators	Accomplished Activities	Timeframe	Status
<ul style="list-style-type: none"> • Identified key definitions and methodologies • Developed structure (report) 	<ul style="list-style-type: none"> • Review requirements by Covenant of Mayors. • Endorse report structure 	Determine the appropriate structure and layout for the SECAP	Result (1): Identify approaches to tackle the BEI	Nov 2021 - Jan 2022	



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MINARET II

Empowering Municipal Governance for Climate Resilience Using WEF Nexus Approach



nexus



Section Two

Project Implementation



2. Project Activities

2.1 Project Commencement

Upon the signing of the cooperation agreement in November 2021:

1. RSS team was assigned for MINARE II project. The team members were assigned in the beginning of November and were given a thorough orientation on the project objectives, clarifying the overall picture and devising a plan for moving forward.

The technical team were introduced to the outputs and lessons learned from MINARET I project, and their desired roles and responsibilities were identified. At later stage a quick desktop review was conducted by the team to familiarize themselves with the current situation of each of the municipalities. This was a crucial step to kick-start the project and to collect sufficient data about the municipalities.

1. Project workplan was formalized against deliverables and clear milestones. [see Figure no.1]
2. As part of donor M&E control mechanism, an agreement to conduct bi-weekly meeting With GIZ coordinator was made.
3. Development of municipalities selection criteria was initiated by the project management.

MINARET II - Workplan 2021 - 2022

Component No.	Component	Objective	Activity No.	Activities	Milestone	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23					
1	Climate resilient municipalities: Membership in Covenant of Mayors - Strengthening municipal capacities to plan and manage climate change adaptation and mitigation measures (development of SECAP)	Municipal Action Plans aimed at climate resilience and integrated natural resources management (via cross-sectoral working groups) are developed.	1.1	Identify municipalities	5 municipalities identified (1 in Egypt, 2 in Tunisia, 2 in Jordan)	█	█																			
			1.1.1	hold meetings with potential municipalities to be involved		█																				
			1.1.2	Initiate official communications with selected municipalities		█																				
			1.1.3	Receive comment letters from selected municipalities			█																			
			1.2	Hold kick-off meetings with relevant stakeholders to discuss way forward (logistics, communication etc) with concerned staff at municipalities				█	█	█	█	█														
			1.2.1	Preparation for kick-off meetings (agenda, presentations, invites list, ...) with coordination from the municipality staff				█	█																	
			1.2.2	As possible, hold in-person kick-off meeting to ensure relevant stakeholders involvement and networking					█	█																
			1.3	Identify, collect data and develop baseline for energy, water, food/agriculture, transportation & GHG emissions at the national and municipal level								█	█	█	█	█	█	█	█	█	█					
			1.3.1	Agree on a template for the baseline report with GIZ and according to relevant guidelines								█	█													
			1.3.2	develop working data collection forms								█	█	█												
			1.3.3	Identify data collection methodology									█	█	█											
			1.3.4	preparation of first draft of baseline report											█	█	█	█	█							
			1.4	Validate and update the baseline study through meeting / workshop with each municipality in each country and finalize final baseline report																█	█	█	█			
			1.4.1	Hold an extended meeting with each municipality for baseline report validation																█	█	█				
			1.4.2	receive approvals from each municipality on its baseline study																	█	█				
1.5	Conduct WEF Nexus training (how to integrate cross-sectoral planning into Action Plan development and other relevant processes & identification of NIA tools that can be introduced)																	█	█	█	█					
1.5.1	preparation for the training with each municipality staff (Agenda, training material, evaluations) + logistics																	█	█							

Component No.	Component	Objective	Activity No.	Activities	Milestone	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23				
1	Climate resilient municipalities: Membership in Covenant of Mayors - Strengthening municipal capacities to plan and manage climate change adaptation and mitigation measures (development of SECAP)	Municipal Action Plans aimed at resilience and integrated natural resources management (via cross-sectoral working groups) are developed.	1.5.2	evaluate the effectiveness of the training																					
			1.6	Develop SECAP technical plan through a cross-sectoral working group and using the spatial planning/landscape approach																					
			1.6.1	identify each cross-sectoral working group for each municipality	In total, 5 mandate descriptions of the cross-sector working groups have been elaborated (or minutes of meeting are elaborated for the convening of these cross-sector working groups)																				
			1.6.2	Conduct meeting with working group																					
			1.6.3	report the results/feedback																					
			1.7	Conduct consultation workshops in each municipality in JD, TU, and EG to validate and update the final SECAP Report	In total 5 SECAP plans have been developed through cross-sectoral working groups and using the landscape/spatial-planning approach																				
			1.7.1	preparation for the workshops with each municipality staff (Agenda, presentations, feedback forms) + logistics	*their financial viability is also secured through targeted advisory support provided through Component 3																				
			1.7.2	review the final SECAP report																					
			1.8	Covenant of Mayors (COM) registration process																					
			1.8.1	Identify registration process requirements/needed documents	CoM registration is completed for all 5 municipalities																				
			1.8.2	submit needed documents + SECAP																					
			1.9	Set up SECAP implementation plan with municipalities																					
			1.9.1	Prepare a draft implementation plan for each municipality	In total, 5 SECAP implementation plans are developed																				
			1.9.2	Discuss the plan with relevant staff and finalize it																					
			1.9.3	receive approvals from each municipality on its implementation plan																					
			1.10	Monitoring and evaluation plan for SECAP implementation progress																					
			1.10.1	Prepare a draft evaluation plan for each municipality	In total, 5 M&E plans are developed																				
1.10.2	Discuss the plan with relevant staff and finalize it																								
1.10.3	receive approvals from each municipality on its evaluation plan																								

Figure 1: MINARET II, Workplan/Component One

2.2 Criteria Development

Selection of the municipalities is a pre-requisite for the success of the registration at Covenant of Mayors and for the implementation of Sustainable Energy and Climate Action Plan (SECAP). The criteria for selecting the municipality was developed to ensure higher level of readiness from the side of the municipalities to commit to the implementation of climate change action plan.

The criteria for evaluating the municipalities were based on two main pillars:

A) Consistency with Country's Economic and Social Priorities

This factor is neutralized due to the fact that the social and economic effects are similar for all municipalities. However, this factor will be taken into consideration when selecting the pilot municipality in rural/vulnerable areas.

B) Impact of Municipality

The following factors were taken into consideration while building the survey, in order to reach the most accurate results and select the right municipalities to be part of MINARET II project:

- Socio-economic and institutional context (e.g. population size, resources)
- Nature of climate hazards faced
- Stage of mitigation and adaptation work (e.g. implementation, design phase)
- Interests in sectors/areas of intervention
- Leadership and accountability
- Preparedness and forward thinking
- Coordination with NGOs/CSOs for implementing services within municipalities
- Communication and planning
- Readiness (municipal capacity in terms of staffing skills, structure IT capacity, quality concern, etc).
- Clearness of processes: in terms of existing documentation for the current processes in conjunction with the staff awareness and implementation of the documented processes.

The assessment was based on multi-dimensional survey sent to vulnerable municipalities in Jordan, Lebanon and Tunisia that highlights municipalities 'needs, and abilities. Additionally, focus group meetings (actual and virtual) were conducted with the management of the shortlisted municipalities: mayors, vice-mayors and municipal staff to learn more about previous and current efforts to build municipal abilities through understanding the type of support they receive (capacity building, material support, etc.); who provides support (national, international or multilateral actors); what projects were developed or implemented; funding mechanisms; existing social capital, and emergency preparedness.

2.3 Identifying Municipalities and Securing Commitment

Although the project agreement was signed in mid-November 2021, but the preparations for the project were initiated from the beginning of the month. The first and most important task was to identify the relevant suitable municipalities that are willing to commit to undertake climate actions and adopt integrated solutions to enhance resilience to sudden shocks. The purpose of this activity is to select pilot municipalities, which shall serve as a model to other municipalities within the targeted countries.

After the development of selection criteria survey, local authorities in Jordan, Tunisia, and Egypt were contacted to request recommendations for municipalities that have potentiality and readiness to join MINARET II. In Jordan, the Jordanian Ministry of Local Administration was officially contacted, in Egypt, Ministry of Environment, Ministry of Local Development, in addition to the Embassy of Egypt in Jordan, and in Tunisia, the Head of Municipalities Council was contacted to recommend potential municipalities.

As for Lebanon, at later stage after frequent attempts to select a municipality in Egypt. The decision was jointly made with GIZ management to switch to Lebanon and select one municipality to be on-board with MINARET II and replace Egypt. Accordingly, local authorities were contacted to nominate one municipality.

For Tunisia the recommendations were made for:

1. Chebba Municipality in Tunisia
2. Raoued Municipality in Tunisia
3. Manouba Municipality in Tunisia

The above three municipalities in Tunisia were provided by the pre-selection survey to fill into it. Based on the data analysis. the successful municipalities were Raoued and Manouba.

For Lebanon the recommendations were made for:

1. Semqanieh Municipality in Lebanon
2. Batloun Municipality in Lebanon
3. Seghbin Municipality in Lebanon

Two municipalities responded and filled the surveys from Lebanon (As Semqanieh and Batloun). The successful municipality was As semqanieh.

For Jordan the recommendations were made for:

1. Greater Ajloun Municipality in Jordan
2. Greater Maan Municipality in Jordan

Before the final selection was made; online meetings were conducted with the mayor of each municipality to introduce MINARET II to them, and learn more about internal governance, early work on climate change/WEF project, achievements in sustainability, and challenges.

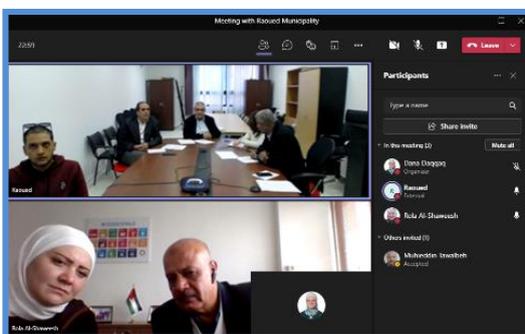
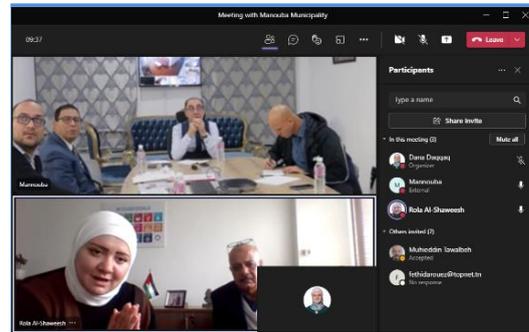


Figure 2: MINARET II, kick off Meetings

The first meetings were conducted virtually with the municipalities due to COVID-19 cautionary measures and travel ban. Once the restrictions were relaxed RSS team started organizing site visits.

The discussions during the meetings have led to the development of an analysis tool. This tool summarizes all the data that needs to be collected and the baseline year. This tool will act as a bridge between RSS team and the municipalities' taskforce to clarify the objectives of the teams and to pave the way for municipalities to understand and provide the required data in a smoothly.

Accordingly, official letters were sent to each municipality informing them on the selection, in turn, the municipalities sent back official letters confirming their interest and commitment to join the project.

MINARET Project Manager presented the objectives and activities that will be carried out. MINARET II project and discussed the various aspects of food, water and energy challenges at the municipality level. Such exchange knowledge has ensured that both parties are on the same page of understanding for paving a clear path for the implementation.

2.4 Establishing an Appropriate Governance Structure

The objective of developing a governance structure for municipalities on energy efficiency and water interdependence, and food security, is to ensure the effective and efficient performance of municipalities in the field of energy efficiency and application of the concept of the nexus between energy security and water and food security (Nexus Security Food - Energy - Water), where these include Governance Institutional arrangements and coordination mechanisms at the municipality level and their linkage at the local and national levels, and all appropriate arrangements, in order to support the implementation of energy efficiency strategies, policies, programs and action plans and the interrelationship between energy, water and food in municipalities.

Given that, the team joined the introductory meeting with municipalities and started setting the bold lines for the way forward. RSS team stressed on the importance of creating a dedicated team by the municipality (Task Force) as most of the tasks and data require a constant follow up by the municipalities' specialised teams. RSS team explained that developing a SECAP is a challenging and time-consuming process. It requires well-planned and continuous collaboration and coordination among local authorities and administrative departments.

Sufficient support from the municipal staff in charge of the SECAP produces the highest levels of commitment and key factor to its success, as they are driving forces of the overall process.

The purpose of forming the Force Task Force (specialized in the interrelationship between water and energy, food security and energy efficiency is to support the municipality to ensure the effective and efficient performance in the field of energy efficiency and to implement the concept of interdependence between the security of Energy and Nexus Security Food - Energy - Water, as well as assistance in preparing local sustainable plans, and encourage participatory planning at the local and national level.

The composition of the Task force is based on ensuring the representation of a specialize spectrum of municipal employees and community participation. The Task Force's goals purpose, responsibilities and their relationship to the implementation of the various project activities are defined in participatory basis between the municipality, group members and project management

One of the main tasks of the specialized working group is to contribute to a proposal of a governance model includes institutional arrangements, coordination mechanisms, legislative frameworks, financing mechanisms across the sectors.

The Task Force is commissioned to support the implementation of water-energy-food nexus strategies, policies and programmes, as well as efficient action plans, and how to raise the commitment needed at the local level such as ministries, national agencies, future partners, specialized committees, etc.

2.5 Baseline Emission Inventory Development

2.5.1 Introduction to Covenant of Mayors & SECAP Plans

The Covenant of Mayors is the world's largest movement for local climate and energy actions. Its vision is that, by 2050, to be living in decarbonised and resilient cities with access to affordable, secure and sustainable energy. As part of the Covenant of Mayors - Europe movement, we are committed to:

1. Reduce greenhouse gas emissions on territories,
2. Increase resilience and prepare for the adverse impacts of climate change, and
3. Tackle energy poverty as one key action.

The Covenant of Mayors initiative adopts a holistic approach to climate change mitigation and adaptation. With respect to climate mitigation, local authorities are guided to address all the different consumers in their territory (Figure 3 below). Sectors such as the 'Residential', 'Tertiary', 'Municipal' and 'Transport' are considered to be the key mitigation sectors. Local authorities focus on reducing the energy demand in their territory as well as on matching energy demand with supply by promoting the use of local energy resources.

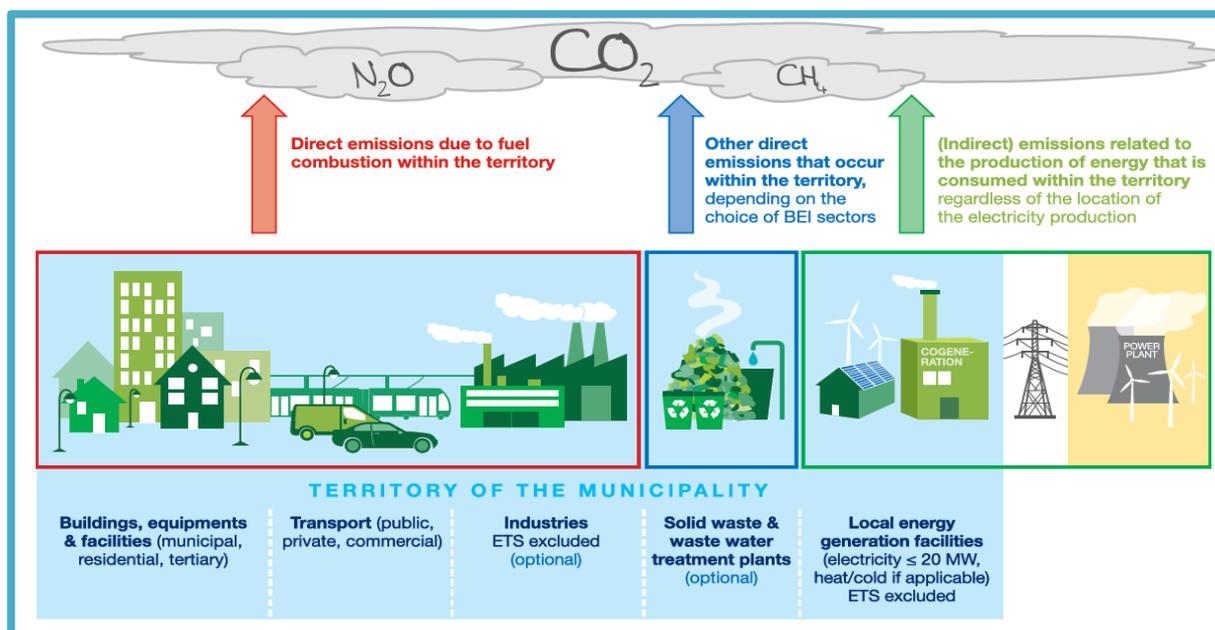


Figure 3: Covenant of Mayors, Holistic approach

In order to translate their political commitment into practical measures and projects,

Covenant signatories commit to submitting, within two years following the date of the local council decision, a Sustainable Energy and Climate Action Plan (SECAP) outlining the key actions they plan to undertake.

The plan will feature a Baseline Emission Inventory to track mitigation actions and a Climate Risks and Vulnerability Assessment. The adaptation strategy can either be part of the SECAP or developed and mainstreamed in a separate planning document. The main objective are to:

1. **COMMIT** to setting mid- and long-term targets, consistent with the EU objectives and at least as ambitious as EU's national targets. The goal will be to achieve climate neutrality by 2050. Considering the current climate emergency, we will make climate action our priority and communicate it to our citizens.
2. **ENGAGE** citizens, businesses and governments at all levels in the implementation of this vision and in the transformation of our social and economic systems. The aim is to develop a local climate pact with all the players who will help us reach those objectives.
3. **ACT**, now and together, to get on track and accelerate the necessary transition. Develop, implement and report -within the established deadlines, an action plan to reach targets. The plans will include provisions on how to mitigate and adapt to climate change, while remaining inclusive.
4. **NETWORK** with fellow Mayors and local leaders, in Europe and beyond, to get inspiration from each other, and encourage them to join the Global Covenant of Mayors movement, wherever they are in the world, would they embrace the objectives and vision described herein."

2.5.2 Baseline Development

The structure of the report is designed with a purpose for making municipalities decarbonized and resilient, where citizens have access to secure, sustainable and affordable energy.

The report structure embraces different sections: starting with an introduction that introduces the municipalities' overall situation and aspects that are relevant to the baseline emission inventory and to the report as a whole such as location, climate, demography, employment, education, infrastructure and economy.

This report will help the local authorities to take into account the diversity on the ground and translate this diversity into quantifiable emissions baseline in order to be able to have a positive action where municipalities can turn their emission reduction ambitions into reality. As through the SECAP municipalities will be offered the opportunity to collect and analyse data in a structured and systematic manner, that serve as a basis for good climate and energy management and for tracking progress in implementation.

The next important section is the baseline emission inventory section. This section is very important, as it tells thoroughly about the interaction methodology between the

municipality and the outer sphere vertically and horizontally, it further gives a thorough elaboration about the interlinkages, dynamics, barriers, and challenges among the vital sectors water-energy-food. It also put forward proposals for integrating Nexus solutions for natural resources management.

The baseline year is determined for each municipality (2018). The baseline importance lies in providing all the data required for the BEI section. Hence, the most attractive year would be the year that has the most relevant and recent data.

The endorsed BEI methodology relies on an integrated and inclusive climate and energy planning, in which local stakeholders have an active role to play. To extract the data, the sectors at municipal level are classified to: municipal residential and commercial buildings, equipment and facilities, public lighting, water and wastewater facilities, industrial sector, transport and solid waste management. Subsequently, each sector was categorized to extract the required data. An example of that would be the types of fuel each is consuming and how much.

2.5.3 BEI Key definitions

While tackling the BEI, there are several definitions that are key to understanding, evaluating and properly selecting data for the BEI, consequently, constructing the emission inventories.

- Inventory year: refers to the baseline year, that is the year against which the achievements of the emission reductions in your target year are measured.
- Number of inhabitants: specify here the number of inhabitants in the inventory year as in the future the municipality will be able to track emissions relative to the population.
- Emission factor: Emission factors are coefficients which quantify the emissions per unit of activity. CO₂ emissions are calculated for each energy carrier by multiplying final energy consumption by the corresponding emission factor.

Two approaches can be adopted:

- IPCC (Intergovernmental Panel on Climate Change) - emission factors for fuel combustion - based on the carbon content of each fuel;
- LCA (Life Cycle Assessment) - emission factors for the overall life cycle of each energy carrier.

For reporting purposes, the IPCC approach has been chosen.

- Emission reporting unit: the emission reporting unit adopted is tonnes CO₂.
- Methodology: considering the most relevant for the understanding of the emission inventory. This includes the data sources used to collect final energy consumption, energy production or other relevant data (e.g. national statistics bodies, energy suppliers and grid operators, surveys, etc.).
- Results of the Emission Inventory includes three main parts:
 - i. Final energy consumption: final energy consumption data is reported by sector; the table below describes the various sectors that will be addressed.

Sector	Description
Municipal buildings, equipment/facilities	Buildings and facilities owned by the local authority. Facilities refer to energy consuming entities that are not buildings, such as wastewater treatment plants.
Non-municipal buildings, equipment/facilities	Buildings and facilities of the tertiary sector (services), for example offices of private companies, banks, commercial and retail activities, hospitals, etc.
Residential buildings	Buildings that are primarily used as residential buildings.
Public lighting	Public lighting owned or operated by the local authority (e.g. street lighting and traffic lights).
Industries	Refers to manufacturing and construction.
Others	Buildings, facilities and machinery of the primary sector (agriculture, forestry and fisheries), for example greenhouses, livestock facilities, irrigation systems, farm machinery and fishing boats.

ii. Energy supply: data related to municipal electricity purchases and local energy production, if applicable.

iii. CO2 emissions - in which you should report the emission factors applied - making possible the automatic computation of CO2 emissions.

2.4 Identifying and Engaging Stakeholders

Several tools were used in the stakeholder analysis for MINARET II to identify and assess the importance of key people, groups of people, or institutions that may significantly influence the success of an activity or implementation of a project.

The main objectives of the stakeholder analysis are:

- To have a clear understanding of the different stakeholders involved at local level, their roles and responsibilities.
- To identify potential gaps or overlaps in the roles of different stakeholders.
- To understand the links among different stakeholders, particularly in terms of sharing and using information.

Public participation of different stakeholders in the decision-making process introduces a range of ideas, experiences and expertise that motivate the development of alternative solutions. This in turn enhances the knowledge of the actors involved in decision-making and implementation of the project.

The importance of stakeholder participation should be recognized in a number of aspects of project implementation. These aspects include:

1. The identification of stakeholders' interests in, importance to, and influence over the project;
2. The identification of local institutions or processes upon which to build support for the municipalities and the project.

It is crucial for the stakeholders to take part of the entire stages of the SECAP analysis process: building the vision, defining the objectives and targets, setting the priorities and if possible, contributing with the necessary human and financial resources. Such stakeholder involvement creates a sense of ownership and

- Transparency of decision-making.
- Extensive knowledge sharing.
- Participation in planning.
- Consensus on vision, strategies, goals and actions.
- Support from stakeholders outside the municipality.
- Attract media attention.

The followings were some - but not limited to- the targeted stakeholders:

- Relevant representatives of national or regional administrations and/or neighbouring municipalities.
- Institutional stakeholders such as chambers of commerce, professional organizations, universities, professionals and research centres and experts.
- Local energy agencies, suppliers, utilities, facilities management companies, energy services companies and national energy agencies.
- Financial partners, banks, private funders;
- Transport/mobility actors (e.g. private/public transportation companies);
- Businesses and industries.
- NGOs and other civil society representatives.

High level meetings with decision makers at the major stakeholder level were also conducted to ensure full understanding of the role of each stakeholder, and that expectations from Minaret II are realistic.

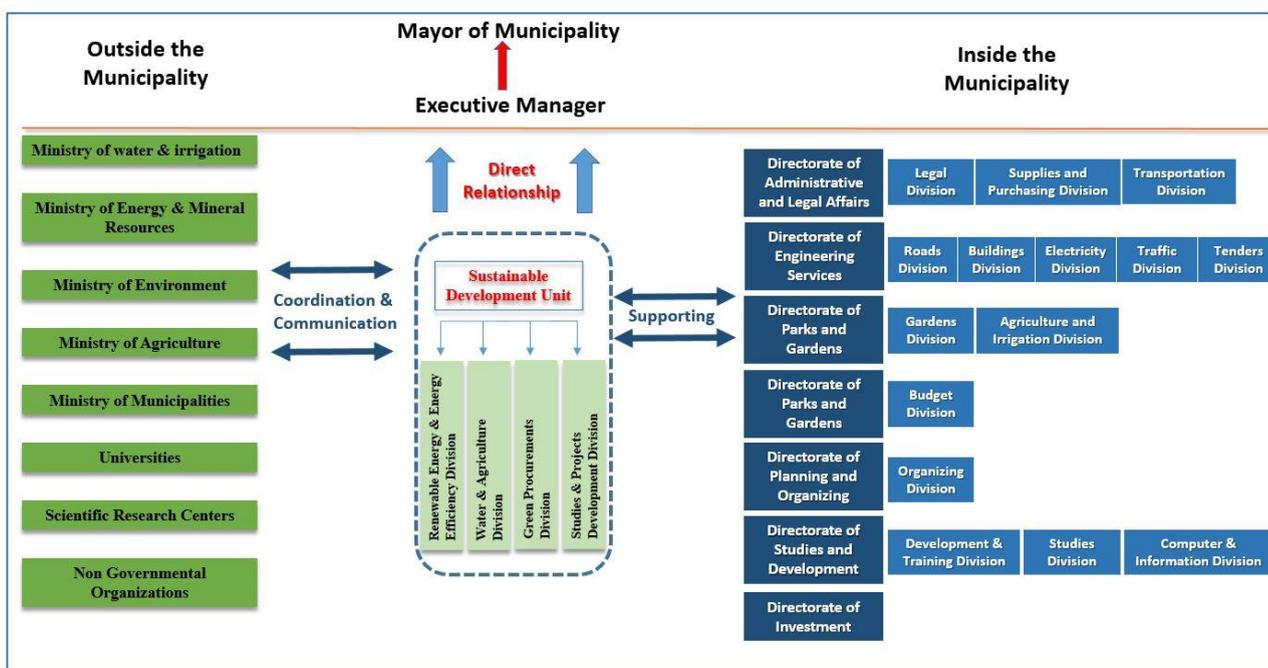


Figure 4: MINARET II Map of Stakeholders

MINARET II project is a municipal project being carried out within the scopes of national and regional debates.

This means that the project is likely to have a diverse group of stakeholders from or related to the municipality as well as national and even regional players.

At the municipality level, stakeholders include officials, civil society organizations (environmental, cooperative, charitable, farmers' associations, women groups), private companies and universities. Moving further away, at the national level, stakeholders include: governmental ministries such as the Ministries of Water and Irrigation, Agriculture, Energy and Mineral Resources, etc.; at the regional level, stakeholders include the municipalities / organizations in Lebanon and Tunisia.

In the context of the MINARET II, stakeholders are defined as everybody/organization who is involved or whose work or interest is affected by the sectors of water, food and energy

Figure 5 shows Stakeholders Identification

Stakeholder	Primary / Secondary	Role & Responsibilities	Interest	Problems
Directorate of Water	Primary	<ul style="list-style-type: none"> Overall monitoring of the water sector, Water supply, wastewater systems and related projects, Planning and management, establishing national water strategies and policies, Research and development, information systems and securing financial resources. Provision of centralized water-related data, standardization and consolidation of data. 	<ul style="list-style-type: none"> Covering people's water needs within WHO standards, Managing water and sanitation issues. 	<ul style="list-style-type: none"> Water resources shortage, Weak public water awareness, Weak coordination with other relevant institutions.
Directorate of Agriculture	Primary	<ul style="list-style-type: none"> Achieving integrated agricultural development in terms of production and productivity Increasing agriculture outputs both quantitatively and qualitatively (food security) 	<ul style="list-style-type: none"> Conservation of agricultural resources 	<ul style="list-style-type: none"> Water shortage, desertification, Infringements on agricultural resources, urbanization, climate change and land ownership fragmentation.
Directorate of Energy	Primary	<ul style="list-style-type: none"> Comprehensive planning process of the sector, setting general plans, ensuring their implementation in a way that achieves the general objectives of the energy sector, and most importantly: providing energy in its various forms, 	<ul style="list-style-type: none"> Provision and management of energy and mineral resources. 	<ul style="list-style-type: none"> High fuel cost, limited funds, limited energy resources and weak public awareness.

		for the development process, organizing energy issues, exchanging electricity power with neighboring countries and attracting international capital for investment in this field, especially the generation of electricity power, the production of oil derivatives, transportation of oil and gas and utilizing of local energy sources.		
Directorate of Environment	Primary	<ul style="list-style-type: none"> • Maintain and improve the quality of environment, conserve natural resources and contribute to sustainable development through effective policies, strategies, legislation, monitoring and enforcement. • Mainstreaming environmental concepts into all national development plans. 	<ul style="list-style-type: none"> • Environmental protection and conserving natural resources. 	<ul style="list-style-type: none"> • Weak public awareness and weak law enforcement.
Environment Associations	Secondary	<ul style="list-style-type: none"> • Protecting the environment at the local level through public awareness and local scale projects 	<ul style="list-style-type: none"> • Environmental protection 	<ul style="list-style-type: none"> • Limited fund and poor staff capacity.

Cooperative Associations	Secondary	<ul style="list-style-type: none"> Improving and maintaining members' social and economic situations. 	<ul style="list-style-type: none"> Improving members situations. 	<ul style="list-style-type: none"> Limited funds.
Civil Society Organizations and Charitable Associations	Secondary	<ul style="list-style-type: none"> Initiatives and strengthening roles of the civil society. 	<ul style="list-style-type: none"> Strengthening the civil society. 	<ul style="list-style-type: none"> Limited funds.
Research Centres and Universities	Primary	<ul style="list-style-type: none"> Developing the community through scientific researches and studies. 	<ul style="list-style-type: none"> Guidance and awareness. 	<ul style="list-style-type: none"> Weak coordination and cooperation with relevant institutions, Limited fund.
Ministry of Education	Primary	<ul style="list-style-type: none"> Education plays a vital role in enhancing human development; it creates a balance between quantitative inputs and qualitative outputs Focusing on modernizing curriculum and textbooks to include modern concepts covering information on populations, environments, health, etc. Dedicate concepts on democracy and human rights; while emphasizing national, patriotic and human dimensions Boost students scientific research skills. 	<ul style="list-style-type: none"> Increase the level of education and improve its quality. 	<ul style="list-style-type: none"> Weak coordination and cooperation with relevant institutions.
Ministry of Interior	Primary	<ul style="list-style-type: none"> Coordination between all parties. 	<ul style="list-style-type: none"> Public safety. 	<ul style="list-style-type: none"> Reduction of authority.
Private companies Sector	Primary	<ul style="list-style-type: none"> Improve the financial situation of owners. Contribute in the developing communities. 	<ul style="list-style-type: none"> Increase the production and improve the economic situation. 	<ul style="list-style-type: none"> High cost of product inputs.

3. Progress in **TUNISIA**

3.1 Field Visits (BEI Data Analysis)

Manouba and Raoued Municipalities

The team conducted visit to the Tunisian municipalities [Manouba and Raoued] to = to have a clear understanding of the infrastructure in the two municipalities learn more about the challenges faced in water-energy-food sectors. The field trip for Tunisia was conducted between 14-21/3/2022. Three days were spent in each municipality. The activities and location in each municipality varied. (visit video through the following link): <https://www.youtube.com/watch?v=9zDhbXjIY-I>

Through the field visits, RSS team had extensive communication with municipality team to ensure the effective involvement of the key stakeholders at the national level, and to reinforce the inclusiveness and the participatory approach among the team.

The following list includes all the locations that were visited in Raoued municipality:

- Raoued municipality building
- Environmental Complex for Sustainable Development
- Cosmetics factory
- Tunisian Company for Electricity and Gas (Raoued delegation)
- Dessert factory
- Transportation department in Raoued municipality
- Al Ghazala Technological Complex

The following list includes all the locations that were visited in Manouba municipality:

- Manouba municipality
- Municipal buildings (municipal store, sport complex and transportation department)
- Manouba University
- Manouba Technological complex
- Manouba Transport Directorate
- National Sanitation Office in Manouba municipality
- Tunisian Company for Electricity and Gas (Manouba delegation)

During the visit, RSS team discussed with the municipalities the challenges they face at with regards to the natural resources management and the barriers the burden the integration of nature based solutions for the benefit of the communities they serve. Furthermore, the team unfolded the topics that deal with the energy challenges, the electrical and gas information. The main objective was to identify the actual electrical energy consumers (BT & MT; which are medium and low voltage in Tunisia).

Within each municipality, after clarifying the electrical consumption data, the team has moved to identifying the natural gas consumers (BP & MP; base and medium pressure), both the electrical and gas data were discussed rigorously in order to estimate the consumptions per sector.

To achieve such results, the team along with the municipalities visited Tunisian Company for Electricity and Gas and met with a relevant team to discuss the data and the main electrical network parameters in the municipalities and electrical connection methodology from the generation plants to the end user consumer.

One important challenging factor, which lists the municipalities as major consumer is the street lighting consumption and the types of installed lighting units. Which is essential in the BEI process in addition to various machinery, fleet and equipment, and electrical meters for municipal facilities. It is crucial to identify all the energy consumers of the municipalities due to their direct impact on the actions that can be taken and included in the SEACAP. Also, a list of all

The municipalities transport directorates were also visited to quantify the overall consumption of various vehicles on road (within the geographical scope of two municipalities, their number and estimates.

An overview to the actual situation of wastewater sector was also tackled in both municipalities, however, we were able to visit the National Sanitation Office in Manouba. The sanitation network was explained such as the percentage of connection to the sewage network and the network mapping system and ensuring that there are no wastewater treatment plants inside Manouba municipality.

Both Manouba and Raoued have technological campuses. Visits were conducted to these sites as to get an idea of the types of building and loads that are used.

Two factories were visited as well which are situated inside the industrial complex in Raoued area. The aim was to determine how factories operate and identify the main electrical and gas consumptions in such factories, in addition to exploring the relevant governmental laws in the field of electrical energy regarding the industrial sector in Tunisia.

Next on the agenda, the team visited Manouba University, where they discussed the R &D in climate change fields the university is engaged in, and how this can have an impact through local action and innovation.

In Raoued, in Sidi Amor area, the team visited the Agricultural and Environmental Development Complex, which hosts iconic plant and flowers from all over the world, in addition to promoting research and implementing pilot projects related to renewables, water treatment, hydroponics and climate change.

By the time the team was in Tunisia, the management was looking for alternatives to Egypt's municipalities and have averted the attention towards Lebanon. By the end of March and after several unsuccessful attempts of contacting different local authorities in Egypt.

Progress in Lebanon

As Semqanieh Municipality

RSS team conducted a visit to Lebanon - Chouf district between 15 - 19 May, 2022, to discuss in thorough the project objectives with As Semqanieh municipality staff and the recommended work plan of the project and activities timeframe. The team also shed the light on the challenges faced by the municipality in the water-energy-food sectors, and on the actions taken so far by the municipalities to combat these challenges. An overview on the issues that were touched during the visit: the waste management at municipal level, water treatment, WEF integrated solutions, and many others. It was clear throughout the discussions that the economic and political situation has severely deteriorated in the past few years in Lebanon, to a point that electricity is only provided by the government for 2 hours a day and Lebanese have to rely on either privately distribution networks or domestic generation. (visit video through the following link): <https://www.youtube.com/watch?v=FgaSJbstwG8>

Throughout 2018 (*the baseline year*), electricity was provided for 12 hours, which is a critical point when calculating the consumptions related to the baseline.

Moreover, the municipality has coordinated a meeting with technical team from the community, in order to verify and clarify the nature of the acquired data and discuss the methodology of collecting these data from the relevant authorities, governmental and governmental institutions.

The following list includes all the locations that were visited in As Semqanieh

Municipality industrial facilities in the municipality:

- Aluminum processing factory
- Cement factory to identify
- Livestock food factory

Municipal Buildings

- Municipality Building
- Municipality's Clinic

Governmental Entities

- Public school

Private Sector

- School
- Veterinary clinic
- Private clinic
- commercial complex
- residential apartments

The site visits were a key milestone to identify the main energy consumers and their pattern of consumption. It is evident that each facility in Lebanon has its unique consumption behavior whether regarding electricity or fuel such as diesel.

This is mainly due to either the unavailability of electricity, or the low power quality that is supplied by the grid. However, the team was able to collect enough data to deduce the pattern of consumption for various entities.

In the first day, the team visited two industrial activities inside the municipality; aluminum processing factory and livestock food factory. Both factories agreed that the grid electricity is not reliable and that it is only used for lighting, and to generate electricity in their factories through private generators. Moreover, the team had the ability to visit one of the main/largest commercial complexes in the municipality. The complex comprises of several commercial activities such as retail stores and restaurants.

In the second day, a visit was conducted to a cement factory whereas the owner of the business assured the team that the business relies completely on in house diesel generators. This of course is a challenge because of the economic and environmental ramifications. On the way commuting to another location, the team tabbed to the educational sector, and paid a visit to a private school and was able to identify two main sources of consumption that are the main building of the school and the school's fleet. Another complex was visited which comprises of two main buildings; one is a school and the other is a hospital. The principal noted that through the last few years the number of students has been increasing mainly due to high influx of refugees, and population increase, which had reflected on the energy consumption, the reason why the management of the complex was proactive in taking the decision to install PV system to cover the demand. A visit to a local veterinarian (medical sector) was also conducted in which the owner informed us that he has installed PV system 7 years ago. This came to us a surprise as the renewable energy penetration is really limited in Lebanon and the rules and regulations were not matured enough to allow for commercial use.

In the third day, a visit was conducted to the National Rehabilitation and Development Center (NRDC); a non-governmental organization (NGO), their mission is to enhance the quality of life for all individuals with special needs and their families through advocacy, education, training, service, and psycho-social support.

Progress in **Jordan**

RSS team conducted several field visits to Ma'an and Ajloun municipalities from the outset of the project. This entails the visits to different sectors: buildings, residential, transportation, commercial, and industrial to quantify the energy consumption patterns at the municipal level and collect the required data from the local authorities such as:

- Ministry of Water
- Ministry of Environment
- Ministry of Energy and Mineral Resources
- National Electricity Company
- Ministry of Agriculture



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MINARET II

Empowering Municipal Governance for Climate Resilience Using WEF Nexus Approach



nexus



The work was not limited to SECAP baseline, but also extended to tackle the challenges in managing the WEF resources and the actions taken so far by the municipalities and local communities to ensure the wise and efficient use of resources again the high demand.

The reality tells about the poor capabilities the two municipalities and their modest mechanisms to combat climate change impacts.

From another hand, the team exerted efforts to identify the relevant stakeholders the should take part of the development of SECAP, in addition to their role in supporting the municipal decision making process.

The work with Ajloun municipality is almost mature, and the BEI report is expected very soon.

As for Ma'an, the data collection process took longer than expected due to the assignment of new Mayor and the management change Ma'an municipality is experiencing.



Section Three: WAY FORWARD

Component	Objective	Activity No.	Activities	Milestone	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	
2	Results and lessons-learned from cross-sectoral planning and project development in the context of climate change are disseminated to the national and regional level	2.1	Support multi-stakeholder policy dialogue and knowledge transfer through networking events between municipalities in a country, between municipalities and associated ministries at national level as well as at regional events through the League of Arab States	2 regional meetings targeted at inter-municipal and regional knowledge sharing have taken place with the aim to maximize municipal capacities to plan, implement, monitor and scale project activities and effectively implement a scalable & replicable NEXUS model and with the aim to disseminate the approach to the national and regional level										
		2.1.1	<i>Event:</i> Multi stakeholder policy dialogue in Tunisia		5-6									
		2.1.2	<i>Event:</i> Multi stakeholder policy dialogue in Jordan			12-13								
		2.1.3	<i>Event:</i> Multi stakeholder policy dialogue in Lebanon	Existing WEF Nexus training material will be adapted to the needs of municipalities and made widely available for the replication of the approach by other municipalities			26-27							
		2.2	Develop municipal-led Communication Action Plans (5-municipalities)	Action plans developed with at least 70% of relevant decision makers										
		2.2.1	Integrated with activity no 1.5											
		2.3	Conduct WEF Nexus training at national level (as part of the policy dialogue) (1 advanced training/each municipality)	Enhanced capacities of Project municipalities & key stakeholders specifically with regards to the ability to plan, implement, monitor and scale Project activities and effectively implement a scalable & replicable NEXUS model.										
		2.3.1	<i>Event:</i> 2-day WEF Nexus advanced training (national) for Ajloun Municipality									14+15		
		2.3.2	<i>Event:</i> 2-day WEF Nexus advanced training (national) for Ma'an & Al-Karak Municipalities, Jordan									26+27		
		2.3.3	<i>Event:</i> 2-day WEF Nexus advanced training (national) for Sumqaneyyeh & Jdaidet El Chouf Municipalities, Lebanon	80% of participants confirm relevance of the training. The training is integrated into an ongoing process to identify synergies between WEF Nexus sectors.										3+4
		2.3.4	<i>Event:</i> 2-day WEF Nexus advanced training (national) for Manouba & Monastir Municipalities, Tunisia											23-26
		2.3.5	<i>Event:</i> 2-day WEF Nexus advanced training (national) for Rawad Municipality, Tunisia											

Comp No.	Component	Component	Objective	Activity No.	Activities	Milestone	*****	Jul-22	*****	*****	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23		
3	Finance readiness		Funding is secured for integrated projects targeted at climate resilience facilitated through an increased dialogue between financiers and public and private project developers, capacity development and targeted advisory support	3.1	Conduct a capacity needs assessment of municipalities with regards to investment planning and project development	A capacity needs assessment is available for the beneficiary group including a proposed TA programme*											
				3.1.1	Event: 1-day Public-finance workshop for municipalities (Tunisia)		29										
				3.1.2	Event: 1-day Public-finance workshop for municipalities (Jordan)			7									
				3.1.3	Event: 1-day Public-finance workshop for municipalities (Lebanon)			28									
				3.2	Provide targeted advisory support to the beneficiary group (municipalities) for the development of the SECAP plan (providing advise and technical assistance on the financial feasibility of the projects; identification of adequate business models; identification of measures to create an enabling environment for public sector engagement) and support the beneficiary group to develop at least 1 project proposal for a WEF Nexus project (deriving from an action in the SECAP) per municipality to present to a financier	A total of 5 financially viable SECAP plans are developed											
				3.2.1	4 days - SECAP advisory support (Develop at least 1 project proposal for a WEF Nexus project (deriving from an action in SECAP for Jdaidet El Chouf Municipality, Lebanon				22-25								
				3.2.2	4 days - SECAP advisory support (Develop at least 1 project proposal for a WEF Nexus project (deriving from an action in SECAP for Al-Karak Municipality, Jordan					19-22							
				3.2.3	4 days - SECAP advisory support (Develop at least 1 project proposal for a WEF Nexus project (deriving from an action in SECAP for Al-Monastir Municipality						10--13						

Comp No.	Component	Component Objective	Activity No.	Activities	Milestone	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23
3	Finance readiness	Funding is secured for integrated projects targeted at climate resilience facilitated through an increased dialogue between financiers and public and private project developers, capacity development and targeted advisory support	3.3.1	<i>Event:</i> 1-day Dialogue session with private sector/investors/ financiers and beneficiary groups and stakeholders workshop for municipalities in Jordan	At least 3 access to finance dialogue events have taken place (1 in each target country); including financiers and relevant stakeholders from public and private sector as well as CSOs					27				
			3.3.2	<i>Event:</i> 1-day Dialogue session with private sector/investors/ financiers and beneficiary groups and stakeholders workshop for municipalities in Lebanon						8				
			3.3.3	<i>Event:</i> 1-day Dialogue session with private sector/investors/ financiers and beneficiary groups and stakeholders workshop for municipalities in Tunisia						24				

Figure 5: MINARET II, Workplan/Component Two & Three

4. HIGHLIGHTS 2022

4.1 Social Media

MINARET II was introduced on several platforms - Information sharing tools, such as YouTube, Instagram, and Facebook. The tools utilized differ at different stages of the project lifecycle such as press releases, posting classified advertisements, video marketing etc. These tools could and will continue to enable project teams to communicate efficiently and positively affects virtual team dynamics.

However, the social media does not replace the foundation practices in MINARET II but instead, offer new and exciting ways of communicating and collaborating with people around those very same practices. Features like announcements, sharing special interests and uploading documents which can be shared with public help to manage project coordination and carry out work in a synchronized manner and maximize the impact of the research project.

4.1 Access to Finance Consultancy

With the aim to assign Finance Expert to capitalize on the work achieved in phase I, and build on the law/ regulatory assessments and models that were developed in the early phase of this regional project in the three countries. TOR were developed in close coordination with GIZ NRD Regional Coordinator. The consultant will work with eight selected municipalities in Jordan, Lebanon, and Tunisia to accelerate investment for integrated natural resources management to these municipalities

The ToR was published on 13 of April, 2022, on different platforms (incl: Tender Jo, Tender Gulf Countries, Relief Web, Facebook, MINARET project website, and LinkedIn). The deadline was on 5th of May, 2022. The call notice was extended until 31st of May, 2022.

5. Challenges

5.1 Institutional Challenges

- a. The following factors hindered the implementation process and consequently affected the scope of the work, and workplan:
- b. Health & Safety procedures (force majeure) that are applied due to the diffusion of Coronavirus, which caused a full cease of activities (including: pilots/workshops/meetings/country visits).
- c. Different administrative and legislative structure in each of the municipalities and countries: Each Municipality has a different administrative and organisational structure whether, it is internal or on a high administrative level. For example, municipalities in Jordan fall under the jurisdiction of the Ministry of Local administration. Whereas the municipalities in Tunisia fall under the jurisdiction of “Wilayah” which can be translated as state or governorate, and in Lebanon the municipalities come in under the Ministry of Internal Affairs. This difference in the municipal administrative structure creates

differences in the municipalities' governance structure which in some cases creates key differences in how they operate and interlink with the sectors.

- d. Municipalities' buy-in to participate in the project: in Jordan MINARET's initiation came in parallel with municipal elections. This made municipalities hesitant to engage in the project as the election period is considered a transitional period as the mayor will change, consequently change some of the objectives of the municipality.
- e. Data Collection: One of the main issues faced and is still facing MINARET II is the collection of data. Although the team has outlined a thorough methodology of the data needed and how to tackle it, the problem lies in communicating with various entities whether private, public or governmental to obtain that data. Many entities were hesitant to share the data although it is ready and available. The team concluded that in many cases this was due to lack of awareness about the WEF Nexus approach and its objectives, and even when explained hesitance persisted which required to go through a long and formal process even when it wasn't needed. One example is what happened concerning Ma'an municipality. An official request by the municipality was submitted to obtain the electrical consumption data within the municipality's borders. Although it was possible, yet the utility company was reluctant to handover the data, and this required MINARET team to go through the Energy & Minerals Regulatory Commission and communicate with the relevant utility company in order to obtain the data. This case required extended and extensive communication process.
- f. RE/ EE/ Climate change Awareness: when dealing with various entities and personnel and explaining the project, it was found that the public in general have little awareness when it comes to these issues. Few in fact know what is it about, the objectives and why should be promoted. This in some cases caused resistance when communicating with other people and in other cases lack of interest.
- g. Economic and Political issues: this is most apparent in Lebanon especially during the site visits. Lebanon is going through a catastrophic economic conditions facing a severe shortage in electricity which in some cases and in sites we visited electricity was not readily available, and a severe shortage of alternative to survive, such as gasoline.
- h. Unrest situation in neighboring targeted country - Lebanon; the critical political and economic situation in Lebanon was a reason for rescheduling many planned activities.

5.2 Environmental Challenges

- a. Jordan, Lebanon and Tunisia's current situation, challenges, and practices about water, energy and food are extremely similar. They are multiple, complex and systemic in nature. Naming a few of the key commonalities between the three countries about the resources.
- b. While a WEF Nexus model is seen as a great plan to deal with the available scarce resources, many challenges as well as opportunities have been identified in the three countries.

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- c. Increased pressures on the environment and resources due to the flow and migration of people from the affected areas to others within the same country or between neighboring countries or other countries.
 - d. Climate Change is still being addressed as an add-on policy issue rather than a core cross-cutting approach that can provide tremendous support in addressing challenges in the region.
 - e. Climate Change may also reduce crop productivity and agriculture yields. The approach for decision-making and management of the three pillars of the WEF NEXUS is still addressed in a silo fashion.
 - f. The understanding of NEXUS as an approach has still not matured enough.