



Food and Agriculture  
Organization of the  
United Nations

# Pre-COP27 Workshop Agriculture and Climate Change in the Near East and North Africa

Workshop report





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# Acknowledgment

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This report was written by Dada Bacudo, Climate Change Consultant. It has been reviewed by FAO Regional Office for Near East and North Africa: Theresa Wong, Natural Resources Officer-Climate Change, Mohamed Abdel Monem, Senior Adviser-Climate Change and Environment, and Rebecca Abi Khalil, Climate Change and communication consultant.

Layout design by Angham Abdelmageed (FAO RNE).

# 1. Introduction and objectives

The pre-conference of the parties (COP27) workshop on agriculture and climate change in the Near East and North Africa held in Cairo, Egypt from November 1 to 3, 2022 provided national practitioners and focal points in climate change and agriculture in the Near East and North Africa (NENA) region the opportunity to exchange on and gain a greater understanding of how to engage with climate change processes toward the improved implementation of national climate action in agrifood systems.

The workshop's main objectives were to enhance the awareness of representatives working on climate change and agriculture on issues related to agriculture in the Convention; identify entry points for integrating agriculture sector climate priorities in national and global climate policy; and formulate messages to bring to the COP.

In particular, the workshop covered:

- Knowledge-sharing to enhance the integration of climate change and agri-food sector priorities.
- Entry points for agriculture priorities in the global agenda, including the Koronivia Joint Work on Agriculture (KJWA).
- Update of the state of knowledge on the climate impacts on agriculture and the solution space, including climate-smart and climate-resilient agriculture, and policy solutions at the sectoral, national, and global levels.
- Inputs from the NENA climate change community of practice towards a common understanding of the most salient issues for the region in the upcoming discussions of COP27.
- How to access to key technical resources and sources of support.

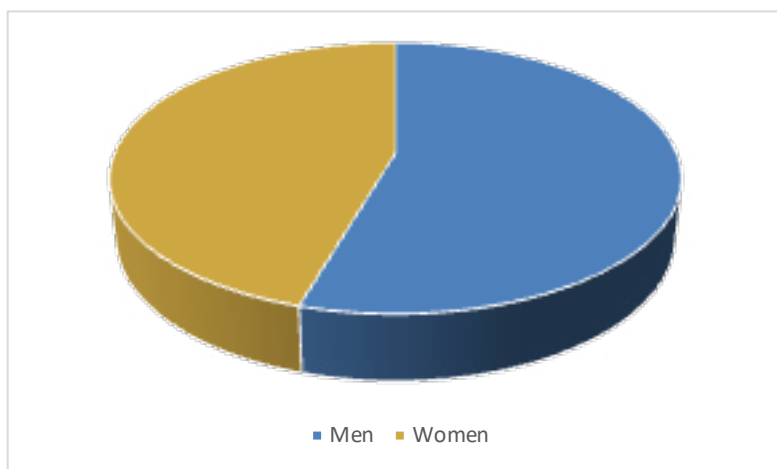
The pre-COP27 workshop on Agriculture and Climate Change in NENA aims to establish linkages between agriculture and climate change impacts; and, through knowledge exchange on best practices in the region for climate action in agriculture, establish that agriculture is both part of the problem and the solution.

At the end of this workshop, participants are intended to understand multi-stakeholder perspectives for transformation to climate-resilient agriculture sectors and understand how to engage with climate policies at the multilateral environment agreement level and to develop and articulate messages at COP27 and beyond.

## 2. Participant information

Participants were from the NENA regional Climate Change Community of Practice (NENA-CCP), including focal points of climate change in Ministries of Agriculture and Environment in NENA countries and present and future national delegates to the United Nations Framework Convention on Climate Change (UNFCCC) COP. There were a total of 22 participants, comprising 18 nominees from various countries and 5 experts. Among them, 55 percent (12 participants) were men, and 45 percent (10 participants) were women. The participant list is presented in Appendix A.

**Figure 1: Gender representation in workshop participants**



**Source:** Author's own elaboration

## 3. Approach

The three-day in-person event featured presentations by experts, lively discussions, quizzes, opinion polls, and group exercises. It also made provisions to resource speakers to join virtually, as well as for FAO Country Offices who could not physically join. The highly interactive programme was designed in order to facilitate exchange of information amongst the countries, establish commonalities in challenges and solutions, and provide FAO NENA office with basis for understanding needs of countries and the region to support transformation to low-emission and resilient agriculture sector. The event culminated in an exercise where countries drafted messages for submission to UNFCCC calls for views. These messages succinctly expressed the challenges posed by climate change, and solutions needed with support addressed to the international community. Throughout the event, the inputs, discussions, and experience-exchange among participants were thoughtfully balanced to ensure meaningful contributions from all parties.

## 4. Contents

### Opening session

Theresa Wong, Natural Resources Officer in Climate Change, FAO Regional Office for the Near East and North Africa (RNE) commenced the workshop with opening remarks.

Abdulhakim Elwaer, Assistant Director General of FAO RNE, highlighted the latest findings from the Intergovernmental Panel on Climate Change (IPCC) report and reflected on the current challenges facing the region, emphasizing the need to address the water-food-energy nexus. He further underscored the significance of the pre-COP27 workshop in exchanging knowledge and identifying necessary actions and solutions and stressed the importance of maintaining strong collaboration among relevant ministries and FAO in the region.

Mahmoud Fathallah, Director of the Department of Environmental and Meteorological Affairs in the Economic Sector at the League of Arab States, emphasized the importance of linking agriculture to the past, present, and future challenges facing the region, particularly in the context of COVID-19 and the need for green recovery.

Ambassador Ayman Amin, Minister Plenipotentiary and Deputy Director of the Department of Environment and Sustainable Development at the Ministry of Foreign Affairs in Egypt, highlighted the crucial role of agriculture in COP27 and also emphasized the importance to consider various initiatives related to agriculture and water during the conference.

Dada Bacudo, Climate Change Consultant, FAO explained the workshop background and objectives. She also facilitated an interactive introduction exercise amongst participants.

## Day 1

### Session 1.1 – Overview of climate change impacts in the NENA Region

#### Highlights:

Session 1.1 provided an overview of the climate change impacts on farming systems in NENA region presented by Marlene Tomaszewicz, Senior Climate Change and Water Resources Expert, United Nations Economic and Social Commission for Western Asia and Mohamed Abdel Monem, Senior Adviser, FAO RNE and moderated by Theresa Wong.

The session began by reviewing the IPCC scenarios 2022 report and how it affected the NENA region. Key take-aways from this discussion were:

1. Historical data is no longer enough for planning for climate action.
2. Coarse resolution does not consider localized climate variability, fine spatial resolution data from regional climate model (RCMs) is needed for small scale studies.

The session then proceeded to discuss the impact of climate change on different farming systems and livelihoods in the NENA region.

The session identifies that climate-smart agriculture (CSA) is crucial in bridging the gap between production and consumption in the NENA region. CSA develops contextual agricultural strategies and practices for sustainable agrifood and climate-resilient practices.

Session 1.1 Presentation can be accessed here: [Climate Change Impacts on Farming Systems in the NENA Region: An Overview](#)



## Session 1.2 – Unpacking agriculture, land use and forestry commitments in NDCs in the region

### Highlights:

Session 1.2 was a discussion on how agriculture, land use, and forestry commitments affect Nationally Determined Contributions (NDC) in the NENA region presented by Theresa Wong. This session identifies that soil management and sustainable management of livestock production are the main factors in greenhouse gas methane emissions in the agriculture sector and that 65 percent of countries include land and soil resources as priority area for adaptation. There is a call for CSA extension and access to improved technologies.

Session 1.2 Presentation can be accessed here: [Agriculture, Water, and Land Use Sectors in the Nationally Determined Contributions \(NDCs\) NENA Analysis](#)

## Mentimeter quiz and group reflections

### Highlights:

In this session, a Mentimeter quiz is conducted amongst the participants, the activity was facilitated by Rebecca Abi Khalil, Climate Change and Knowledge Management Specialist, FAO.

The Mentimeter questions focused on trying to get participants' views on climate change hotspots in the region, NENA NDC analysis, and what are the most pressing challenges and approaches in terms of agriculture and climate change in each country in the region. Participants replied that the most pressing climate change challenge is water scarcity and lack of capacities and financial resources to address climate change in the sector.

The 20 minutes session saw active and enthusiastic participation from all in-person and online attendees. Following the session, time was allocated for a Q&A session, allowing participants to engage with the speaker and other participants and further deepen their understanding of the topic. In addition, the speaker highlighted various publications and sources from FAO RNE and Koronivia Joint Work on Agriculture that participants could refer to in order to strengthen their knowledge (different participants showed appreciation for this brochure and the overall session). Brochure is available on this link: [Resources on climate change context, data and planning in the Near East and North Africa Region and Resources on Koronivia Joint Work on Agriculture](#).

## Session 1.3 – Carbon neutrality, net zero, and forest and landscape restoration

### Highlights:

Session 1.3 was a discussion on carbon neutrality, net zero and forest and landscape restoration (FLR) presented by Dada Bacudo based on the presentation originally made by Beau Damen, FAO Regional Officer for Asia and the Pacific (RAP) with support from Sion Chiew, FAO RAP.

The session posed the questions, what does net zero and carbon neutrality mean in agrifood systems? What are some mitigation solutions within agrifood systems?

Key agriculture and land use technologies were presented for approaching net zero. FAO is requested to support NENA countries tapping the climate finance, building the capacity for project formulation and

raising awareness on net zero and carbon the neutrality in agriculture sector.

This session highlighted the need to really understand the implications of the terms carbon neutrality, climate neutrality, net zero. The technical definition from the IPCC report proved difficult to understand, while examples of decarbonization efforts seem familiar to many participants.

Session 1.3 Presentation can be accessed here: [Carbon Neutrality, Net-Zero and FLR](#)

## Session 1.4 – Discussion: Exploring agricultural sector solutions to climate change

### Highlights:

Session 1.4 was a discussion on exploring the agricultural sector solutions to climate change moderated by Mohammed Abdel Monem.

The long periods of drought due to climate change turned 80 percent the of region's land into non-productive land, which hindered the capability of the region to secure the basic needs of food.

In the negotiations, the league of Arab states (LAS) will focus on food system transformation to combat climate change and hunger considering successive crises.

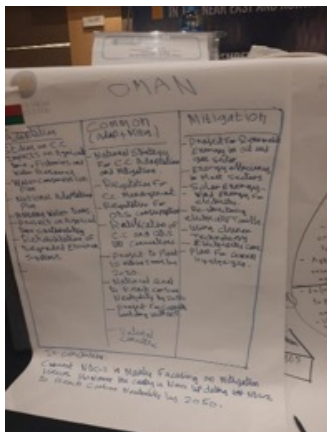
Session 1.4 presentation can be accessed here: [Climate change impacts on farming systems in the NENA region: an overview.](#)

## Session 1.5 – Group exercise

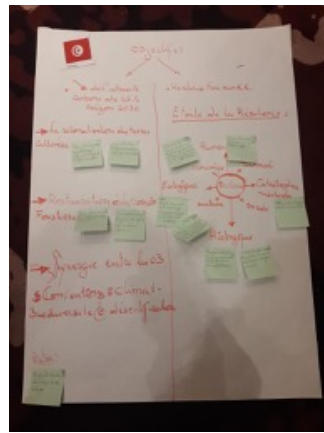
### Highlights:

For Session 1.5, Dada Bacudo facilitated a group exercise aimed at connecting current work with national climate policies. The exercise posed the question, *"how much of our work in agrifood systems reflects adaptive and low emissions approaches and are counted into national climate policy framework?"*

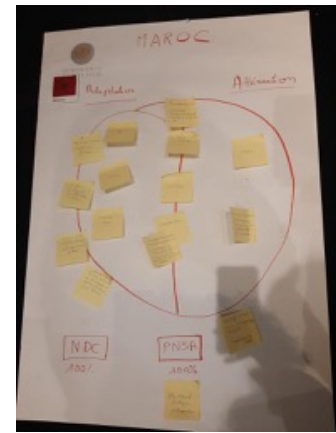
Country representatives were asked to draw any geometric shape and divide it into 2 parts representing on one half, adaptation and the other half, mitigation approaches in their work. At the bottom half of the geometric shape, to draw a house representing their policy house which hosts NDCs and other national climate change plans. Finally, they are asked to show how much percentage of their work is reflected in such a house. During the exercise, participants consulted their colleagues, the internet, and reviewed materials to incorporate as much information they can gather into their assignment. Participants produced an output that can be seen below. The exercise proved an excellent opportunity for a lively exchange of information amongst one another.



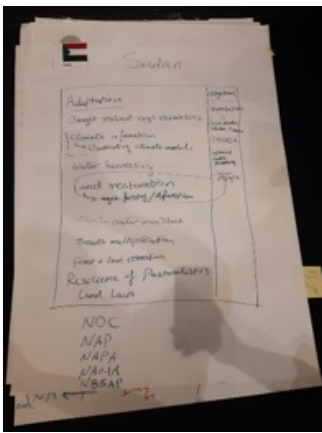
Oman



Tunisia



Morocco



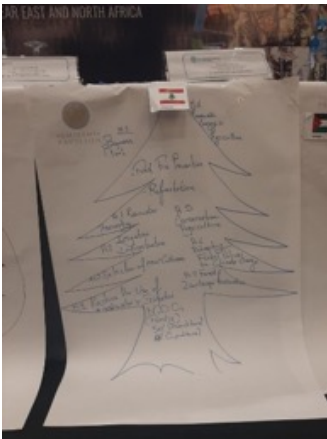
Sudan



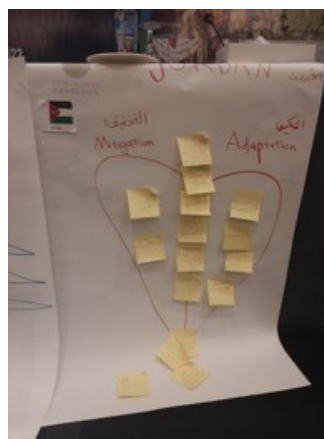
Egypt



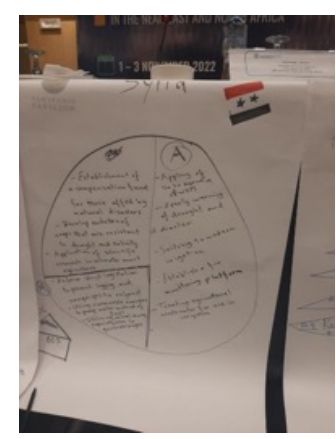
Palestine



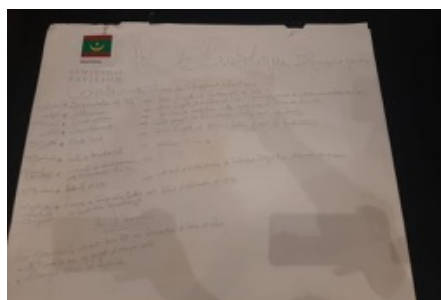
Lebanon



Jordan



Syrian Arab Republic



Mauritania

## Day 2

### Session 2.1 – The Koronivia Joint Work on Agriculture

#### Highlights:

Session 2.1 was a discussion on the Koronivia Joint Work on Agriculture presented by Akiko Nagano, Programme Officer, Office of Climate, Biodiversity and the Environment, FAO, and Bernadette Fischler, Head of Advocacy, World Wide Fund for Nature (WWF-UK). This was followed by a presentation and panel discussion where representatives from the Association of Southeast Asian Nations (ASEAN) region shared their knowledge and experience on KJWA. The panel discussion was led by Dada Bacudo with the ASEAN Negotiating Group for Agriculture (ANGA) representatives Setiari Marwanto from Indonesia and Mohammad Hariz Bin Abdul Rahman from Malaysia.

The session posed the question, what do we know about country priorities and what's next? The session covered the following points:

1. Agriculture and climate change.
2. This history of agriculture in the UN Framework Convention on Climate Change (UNFCCC)
3. The KJWA and the Koronivia roadmap.

The KJWA focuses on agriculture and food security under UNFCCC to drive transformation in agriculture and food systems and address synergies and trade-offs between adaptation/mitigation and agriculture productivity. It also complements country NDCs, NAPs and the enhanced transparency framework under the Paris Agreement.

As agriculture was not emphasized before during COPs, negotiators finally agreed at COP23 in 2017 to add agriculture to the negotiation. Agriculture negotiation is difficult in so many countries and in many developed countries policymakers were struggling to change farmers' practices.

Koronivia's workshop topics or elements consist of adaptation and resilience, improving soil carbon, soil health and fertility, improving nutrient use and manure management, improving livestock management, food security and socio-economic dimensions.

FAO supports Koronivia from outside UNFCCC and provides member countries with technical support to adapt to climate change and reduce greenhouse gas emissions. FAO also supports agriculture experts under the UNFCCC through webinars, workshops and knowledge products and also works with UNFCCC-constituted bodies and financial mechanisms to ensure the integration of agriculture sectors.

The "What" and the "How" for the future of Koronivia

So far, koronivia prepared an informal note to UNFCCC to establish the Koronivia Committee/work programme on agriculture. The purpose of this committee consists of 3 pillars:

1. Pivot to action
2. Scale up support (including finance)
3. Move from knowledge exchange to implementation and creation of enabling environment for developing countries' parties.

These can be achieved through:

- Continuing to share and increase knowledge.
- Measuring, reporting and verifying (transparency).
- Establishing a forum to discuss issues related to agriculture and food systems in UNFCCC.
- Coordination platforms to harmonize and integrate the work on agriculture across UNFCCC while connecting with external institutions outside UNFCCC.
- Enabling programme to facilitate the implementation of agriculture projects at the national level.

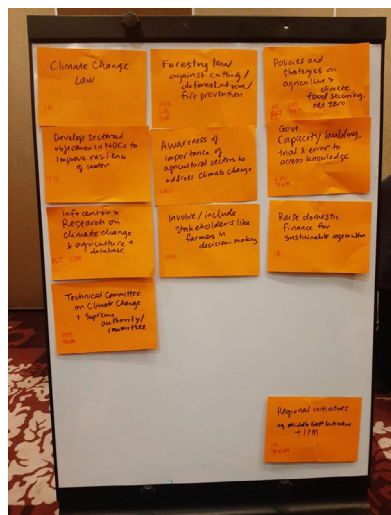
We can take Koronivia forward by extending the roadmap with a second phase and new technical priorities and modalities for implementation. Other relevant topics to consider for the future of Koronivia are means of implementation, finance, technology transfer and capacity building.

Session 2.1 Presentations can be accessed here: [Koronivia Joint Work on Agriculture and Options for the “WHAT” and the “HOW” for the future of KJWA](#)

## Session 2.2 – Plenary exercise

### Highlights:

Session 2.3 was a plenary exercise to digest the results and reflections on policy messages. This session was led by Theresa Wong. Mohammed Abdel Monem also provided feedback summarizing the roving roundtables result.



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The plenary showed common challenges as well as common solutions:

Challenges	Solutions
→ Sustainable land management, biodiversity, water scarcity.	→ Need for understanding remedial actions that can address climate change impacts within the agriculture sectors.
→ Drought.	→ Need for building capacities to access technical knowledge and finance that can scale up pilots on climate smart agriculture.
→ Conflict.	→ Need to engage and build capacities in policymaking for agriculture and climate change.
→ Lack of capacity building infrastructure.	→ An inter-NENA or regional approach towards knowledge exchange, data gathering, capacity building, policymaking, and financial access came out as a suggestion rather strongly, especially during the last group exercise which produced mock submissions to UNFCCC calls for views (based on results of previous exercises).
→ Lack of understanding on the link between climate change and agriculture.	
→ Lack of capacity to access climate finance.	

## Day 3

### Session 3.1 – Climate policy engagement

#### Highlights:

Session 3.1 aimed to link national and global levels on climate policy engagement. This session was led by Mahmoud Fathallah, League of Arab States with a presentation from Rajae Chafil, Director of Climate Change Capacity Building Centre – 4C, Morocco.

Session 3.1 Presentation can be accessed here: [Climate Policy Engagement](#)

### Session 3.2 – Private sector engagement in implementing agriculture and land use priorities of NDCs

#### Highlights:

Session 3.2 focused on private sector engagement in developing key messages and implementing climate change priorities in agriculture presented by Neha Rai, Climate Change and Private Sector Engagement Specialist, Scaling up Climate Ambition on Land Use and Agriculture through Nationally Determined Contributions and National Adaptation Plans (SCALA) Programme, FAO, Simon Leiva, Coordinator, Global Alliance for Climate Smart Agriculture (GACSA), and James Smith, World Business Council for Sustainable Development (WBCSD), and moderated by Theresa Wong.

Session 3.2 Presentation can be accessed here: [Private Sector Engagement in Implementing Agriculture and Land Use Priorities of NDCs](#)

## Session 3.3 – Distilling messages for UNFCCC workshops

### Highlights:

Session 3.3 focused on distilling messages for UNFCCC workshops presented by Wojek Galinski, Senior Advisor – nature-based solutions, Global Carbon Council, Doha, Qatar. In this session, participants were guided by the expert on how best to distil messages for submission to UNFCCC calls for views, such as the Koronivia Joint Work on Agriculture, and future calls for views on agriculture.

## Session 3.4 – Plenary and exhibition

### Highlights:

The last session of the workshop was a plenary and exhibition where participants finalize their displays and rate exhibits and key messages facilitated by Theresa Wong. Key messages from each country representative are presented in Appendix C.

The session was facilitated by Mohamed Abdel Monem and Jean-Marc Faures, for country representatives to share what support is needed from FAO and what are the next steps that their countries can take. The questions that country representatives answered were:

1. How can FAO support your country on climate change impacts on agrifood systems?
2. What will you do differently/different approach in your country after this workshop?

Country Representatives had these responses to the questions:

### Morocco

- Morocco requests FAO's support in technology transfer and capacity building, as well as financial assistance for pilot projects.

### Yemen

- Yemen requests FAO's support in providing a comprehensive climate change database, as well as direct implementation of climate change projects rather than working through other organizations.
- The focal point/participants will work to learn new skills for negotiations, as well as simplify the presentation and explanation of climate change issues to colleagues and other focal points in their country.

### Sudan

- Sudan requests FAO's support in providing opportunities to learn about climate change and its impacts, and information on negotiations specific to Sudan.

### Oman

- Oman requests FAO's support in preparing a national plan for net-zero, as well as promoting multi-stakeholder collaboration on climate change issues at a national level.
- The focal point/participants will work to ensure capacity building and knowledge exchange are effectively integrated into the country national climate plans.

## Palestine

- Palestine requests FAO's support in capacity building, including technical and soft skills such as negotiations and communication, and support in participating in regional and national climate initiatives and projects. They also request FAO's support in developing a climate change database.
- Palestine commits to working on a nexus approach with other sectors, promoting multi-stakeholder collaboration, and exchanging knowledge with colleagues and other climate change focal points in their country.

## Lebanon

- It is important for FAO to take a leading role in facilitating access to finance for countries, both in terms of accessing existing finance and in helping countries navigate the process of applying for new finance. FAO should also work more closely with countries and be more focused on their needs and priorities, rather than only focusing on donors' requirements and agendas.
- Moving forward, focal point/participants will prioritize a multi-stakeholder approach in addressing climate change issues, recognizing the importance of collaboration and partnerships across sectors. They will also explore opportunities for collaboration with other sectors, such as renewable energy, to reduce the impact on the environment and help address Lebanon's energy crisis.

## Tunisia

- To achieve both short-term and long-term national and regional climate objectives, FAO support is needed for research and innovation, particularly in priority areas such as water treatment, livestock management, and carbon management. This should include planning and implementing workshops to engage more national research partners, as well as capacity building on negotiation, accessing finance, and collaborating with other regional entities.

## Mauritania

- FAO technical support is needed to build capacity and exchange knowledge on climate change topics.
- In order to improve climate action, focal point/participants will prioritize multi-stakeholder collaboration to foster partnerships across sectors.

## Kuwait

- FAO support is needed to better engage Kuwait in regional climate change projects.
- The focal point/participants will work to ensure the proper implementation of NDC support projects.

## Egypt

- FAO support is needed for risk and vulnerability assessments, as well as loss and damage assessments, specifically for the agriculture sector in Egypt.

## Syrian Arab Republic

- FAO support is needed to provide a comprehensive mapping of the achievements in the country and the region, as well as build a database on climate change topics.
- Focal point/participants will work on improving early warning systems and information and knowledge exchange, specifically on the differences between adaptation and mitigation. They will also focus on identifying national priorities and unlocking entry points for climate action.



## Iraq

- FAO support is needed to establish a sub-group on agriculture and climate change negotiation, similar to the Koronivia process. Additionally, FAO can help facilitate technology transfer and promote innovative approaches and tools for regional projects and programs. A finance platform should be created in partnership with organizations such as the Global Environment Facility (GEF) and Green Climate Fund (GCF), and a loss and damage database should be developed for the agriculture sector. Finally, capacity building and knowledge exchange with countries' climate change focal points is necessary.
- To promote climate action, the focal point/participants will continue to develop a National Adaptation Plan for the agriculture sector and work to implement climate change projects.

## Closing session

### Highlights:

During the workshop's closing remarks, Jean-Marc Faures, Regional Programme Leader for FAO RNE, emphasized the need for climate-smart agriculture practices, new approaches, technologies, and tools to reduce emissions, increase sustainability, and provide solutions for both adaptation and mitigation actions. He also recognized the importance of research and technology, particularly for farming communities. He stressed the need to engage with farmers and understand the social dimensions involved in implementing new technologies and practices and highlighted the value of farmer field schools in providing training and support.

Throughout the workshop sessions, country representatives emphasized the importance of multi-stakeholder collaboration, highlighting the need for improved tools and strategies to exchange knowledge and share data among countries.

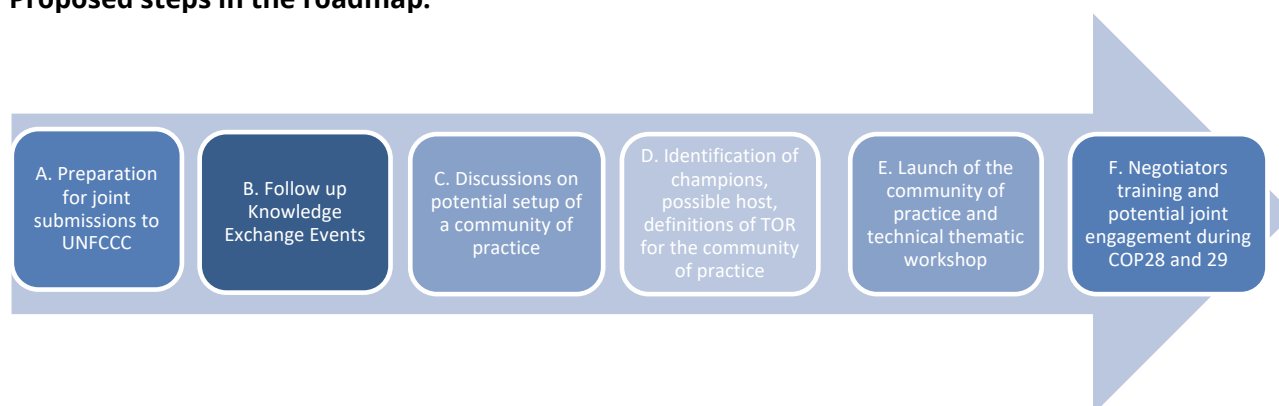
## 5. Recommendations and roadmap

### Roadmap to the Establishment of a Community of Practice for climate action in agriculture in the NENA region

The 3-day workshop provided an avenue for focal points and experts to discuss and identify the most pressing issues faced by the agriculture sector when it comes to climate change. As seen in the plenary exercises, countries in the NENA region shared many common challenges but the exercise also allowed for inter-country exchanges which provided the opportunity to map out common solutions.

The presentations, lively exchanges, and outputs during the workshop made it clear that an inter-NENA or regional approach towards knowledge exchange, data gathering, capacity building, policymaking, and financial access is a key step in moving forward and establishing a community of practice in the region. As in other regions in the world, building on such a momentum, and continuing the organization of follow up events can lead to the development and strengthening of such a community of practice. Below are steps that can be taken to support the development of such:

#### Proposed steps in the roadmap:



#### A. Preparation for joint submission to UNFCCC

This first activity can be organized back-to-back with a debriefing on COP27 results relevant to the agrifood system:

- Loss and damage financial instrument – engagement with the Santiago Network.
- Post-Koronivia 4-year Sharm Al Sheik Koronivia implementation plan.
- Global Stocktake.
- Adaptation – exploration of how agriculture can be linked into these major decisions; or how the post-Koronivia decision can be linked to the loss and damage financial instrument.
- Formulation of country or regional submissions to the UNFCCC call for views on the (Terms of Reference) TOR of the Sharm Al Sheik Koronivia implementation plan.

The preparation for joint submission to the UNFCCC provide entry points for agriculture to link with other COP27 decisions. COP27 set the way to move forward on the Global Goal on Adaptation. COP27 also witnessed that there was an increased focus on nature-based solutions (NBS), particularly looking at food, water, ecosystem and biodiversity nexus which are solutions also being targeted by the countries in the region.

The Sharm-El-Sheikh implementation plan included early warnings systems which is also critical for building resilience of agriculture. The UN Secretary-General announced an executive action plan for an early warning system with the targeted investments of USD 3.1 billion over the next five years.

### **B. Follow up knowledge exchange events**

Follow up knowledge exchange events will continue to build momentum, help identify champions, support the definition of terms for this community of practice and its mandates.

Many common topics emerged out of the workshop, where technical thematic follow up events can be developed out of:

- Adapting a multistakeholder approach.
- Understanding the language of UNFCCC to be better informed in preparing submissions.
- Understanding and developing net zero plans.
- Building coherence and understanding climate-smart agriculture, agroecology, biodiversity, food system approaches.
- Land and resource management for food security in conflict areas.
- Renewable energy / biomass.
- Resilient Pastoralism.
- Stress tolerant varieties.
- Understanding compensation funds for those affected by calamities.
- Livestock management.
- Carbon opportunities in agriculture.

Later on, the potential for joint engagement as a united group during subsidiary workshops during COPs can be a possibility.

FAO NENA regional office should be in a good position to attract partners and support for such an undertaking. Group exercises validated the request for FAO to facilitate regional exchanges, and support capacities to access climate finance.

### C. Discussions on potential setup of a community of practice

This possible platform or community of practice is best described by countries as below:

<b>Yemen</b>	Providing a full database for climate change topics and work more directly on implementing projects.
<b>Sudan</b>	Providing more opportunities to learn about climate change and its impacts in their full contexts and providing information on negotiations specific to Sudan.
<b>Oman</b>	Preparing a national plan for net zero; and need for multi-stakeholder collaboration on climate change issues.
<b>Palestine</b>	Capacity building in both technical and soft skills such as negotiations and communication.  Participating in regional and national initiatives and projects.  Developing database like “aquastats” that focus on climate change data.
<b>Tunisia</b>	Research and innovation to reach short and long term national/building on negotiation.  Accessing finance and support in collaboration with other regional entities.  Establishing a regional project or programme that supports transformation and change in current production patterns that improve the resilience of grain and fodder systems, raise their yields, and adapt to new/updates in the environment/situation.  Enhance the integration between the different countries/organizations in these systems.
<b>Mauritania</b>	Accessing technical support on climate change topics (capacity building and knowledge exchange) and multi-stakeholder collaboration.  Strengthening the decisions to all the financiers who care about integrated development and responsibility for the countries on the road to growth and to the national and foreign private sector investors on conditions.
<b>Kuwait</b>	Engaging us in regional climate change projects and ensure the right implementation of NDC support project.
<b>Egypt</b>	Gaining knowledge from a risk and vulnerability assessment and loss and damages assessment for the agriculture sector.  Gaining assistance from international bodies to strengthen technical capacities and climate financing to implement adaptation plans in the climate change context, on the condition of non-interference in the internal agricultural policies of Egypt.

<b>Syrian Arab Republic</b>	<p>A mapping of the achievements on the country/regional level into a database on climate change topics on the regional level.</p> <p>Information and knowledge exchange on the difference between adaptation and mitigation and where best to send national priorities and unlock entry points for climate actions.</p> <p>Accessing support in financing projects to develop the capacities/capabilities of stakeholders and their participation in negotiation and decision-making processes as one of the solutions.</p>
<b>Iraq</b>	<p>Creating a sub-group on agriculture and climate change negotiation (like Koronivia).</p> <p>Technology transfer that encourages/promotes the use of innovative approaches and tools in regional projects/programmes.</p> <p>Creating a finance platform (link with CFG and GEF for example).</p> <p>Create a loss and damage database for the agriculture sector.</p> <p>Capacity building and knowledge exchange with countries' climate change focal point.</p>
<b>Lebanon</b>	<p>Creating a platform in having countries access to finance.</p> <p>Working more with a multi-stakeholder approach to develop more intra-NENA countries' financial support (Green Middle East initiative) as well as local capacity building for negotiators and national staff to be able to access international environment funds (GEF, GCF, and so on).</p>

# Appendix

## A. Participant List

#	Country	# of Delegates	Participant's Name	Title	Ministry/FAO
1	Egypt	1	Mohamed Fahim	Advisor and climate change focal point	Ministry of Agriculture (MOA)
2	Iraq	1	Sahar Hussein	Weather forecast Technical Department	Ministry of Environment (MOE)
	Iraq	1	Rawya Mezaal Mahmoud	Director General of the Department of Forestry and Combating Desertification	MOA
3	Jordan	1	Mohammad Shibli	Director of Climate change department	MOA
		1	Raed Bani Hani	Ministry of Agriculture	MOE
4	Lebanon	1	Chadi Mohanna	Director of Rural Development and Natural resources	MOA
	Lebanon	1	Tharwat Mokelled	Atmospheric Chemistry Specialist	MOE
5	Morocco	1	Siham Maakoul	Agro-economist	MOA
	Morocco	1	Rajae Chafil	Director General of the Climate Change Competence Center	MOE
6	Mauritania	1	Mohamed Yahya	Ministry of Agriculture	MOA
7	Oman	1	Ibrahim Ahmed ElAjmi	Environment Authority	MOE
8	Sudan	1	Sania Ali Rihan	Natural Resources Management	MOA
9	Syrian Arab Republic	1	Mohammed Abou Hamoud	Director of early warning system	MOA
10	Tunisia	1	Afaf Ayed	Director, National Unit coordination on the climate change	MOE
	Tunisia	1	Haickel Hechlef	International Cooperation Director	MOA

11	Palestine	1	Ibtisam Abualhaija	Climate change focal point	MOA
12	Yemen	1	Abdulraqeb Shamsan Al-Okaishi	Director of adaptation-Climate Change Unit, Environment Protection Authority (EPA)	MOE
		1	Abdullah Salem Karama Alwan	Chairman of General Agriculture Research & Extension Authority	MOA
<b>Subtotal</b>		<b>18</b>			
Not nominated by countries:					
	Egypt	1	Nesreen Lahham	Expert, agrifood systems transformation	Arab Organization for Agricultural Development (AOAD)
		1	Kamel Amer	Head of Middle east office	League of Arab States (LAS)
	FAO	1	Elwathig Mukhtar Hamid	Assistant FAOR-Sudan and GEF-GCF focal point, RNE	FAO RNE
		1	Fatma ElZahraa	Environment and Climate Change Specialist	FAO Egypt
<b>Total</b>		<b>22</b>			

## B. Workshop programme

### Day 1: November 1, 2022

#### Objective

Establish linkages between agriculture and climate change impacts; and, through knowledge exchange on best practices in the region for climate action in agriculture, establish that agriculture is both part of the problem and the solution.

Time	Description	Speaker
9:30-10:30	Opening Session <ul style="list-style-type: none"> <li>Welcome remarks</li> <li>Workshop objectives</li> </ul> Group photo	Moderated by: <b>Theresa Wong</b> , Natural Resources Officer (Climate), FAO Regional Office for the Near East and North Africa (RNE) <b>Abdulkhkim Elwaer</b> , Assistant Director General, FAO Regional Office for the Near East and North Africa <b>Mahmoud Fathallah</b> , Director, Department of Environmental, Meteorological Affairs - Economic Sector, League of Arab States Ambassador <b>Ayman Amin</b> , Minister Plenipotentiary, Deputy Director of the Department of Environment and Sustainable Development, Ministry of Foreign Affairs, Egypt
10:30-10:45	Participant introductions and expectation setting	Facilitated by: <b>Dada Bacudo</b> , Climate Change Consultant, FAO
10:45-11:30	<b>Session 1.1</b> Overview of climate impacts on agriculture and food systems in the NENA region: what does the science say?  Climate change impacts on farming systems in the region: an overview	Moderated: <b>Theresa Wong</b> <b>Marlene Tomaszewicz</b> , Senior Climate Change and Water Resources Expert, United Nations Economic and Social Commission for Western Asia <b>Mohamed Abdel Monem</b> , Senior Advisor, FAO-RNE  *All presentation sessions include Q&A at the end
11:30-11:45	Coffee break	
11:45-12:00	<b>Session 1.2</b> Unpacking agriculture, land use and forestry commitments in nationally-determined contributions in the region	<b>Theresa Wong</b> , Natural Resources Officer (Climate Change), FAO-RNE
12:00-12:15	Mentimeter Quiz and group reflections	<b>Rebecca Abi Khalil</b> , Climate Change Knowledge Management Specialist, FAO
12:15-12:40	<b>Session 1.3</b> What does net zero and carbon neutrality mean in agrifood systems? What are some mitigation solutions within agrifood systems?	Moderated by: <b>Dada Bacudo</b> <b>Ciniro Costa Jr.</b> , Science Officer, International Centre for Tropical Agriculture (CIAT)
12:40-12:40	<b>Session 1.4</b> Discussion: Exploring agricultural sector solutions to climate change	Moderated by: <b>Mohamed Abdel Monem</b>
13:30-14:30	Lunch	
14:30-15:45	<b>Session 1.5</b> Group Exercise: Connecting current work with national climate policies How much of our work in agrifood systems reflects adaptive and low emissions approaches and are counted into national climate policy frameworks?	<b>Dada Bacudo</b> , Climate Change Consultant, FAO
15:45-16:00	Wrap up and preparation for the next day	<b>Theresa Wong</b>
16:00-16:30	Coffee break and close of Day 1	



## Day 2: November 2, 2022

### Objective

To understand multistakeholder perspectives for transformation to climate-resilient agriculture sectors.

Time	Description	Speaker
09:30-09:45	Recap of Day 1	<b>Theresa Wong</b> and one nominated country representative
09:45-10:15	<b>Session 2.1</b> The Koronivia Joint Work on Agriculture – what do we know about country priorities and what's next?	<b>Akiko Nagano</b> , Programme Officer, Office of Climate, Biodiversity and the Environment, FAO <b>Bernadette Fischler</b> , Head of Advocacy, WWF-UK
10:15-10:45	Presentation and panel discussion: Sharing from the ASEAN region on KJWA	Led by: <b>Dada Bacudo</b> with ASEAN Negotiating Group for Agriculture (ANGA) representatives: <b>Setiari Marwanto</b> , Indonesia <b>Mohammad Hariz Bin Abdul Rahman</b> , Malaysia
10:45-11:00	Coffee break	
11:00-13:00	<b>Session 2.2</b> Roving roundtables: Sharing from country representatives on adaptive approaches in agrifood systems to climate change using the results of Session 1.3	Facilitated by: <b>Dada Bacudo</b>
13:00-13:30	Feedback: Reflecting on lessons learned	Moderated by: <b>Mohamed Abdel Monem</b>
13:30-14:30	Lunch	
14:30-15:00	<b>Session 2.3</b> Plenary exercise: Digesting the results and reflections on policy messages	Led by: <b>Dada Bacudo</b> and <b>Rebecca Abi Khalil</b>
15:00-16:00	<b>Session 2.4</b> Going the distance: Mapping climate connections at the country level	Facilitated by: <b>Dada Bacudo</b>
16:00-16:15	Wrap up of Day 2	Theresa Wong
16:15-16:45	Coffee break and close of Day 2	

## Day 3: November 3, 2022

### Objective

To understand how to engage with climate policies at the multilateral environment agreement level and to develop and articulate messages at COP27 and beyond.

Time	Description	Speaker
09:30-10:00	Recap of Day 2	<b>Rebecca Abi Khalil</b> and <b>one nominated country representative</b>
10:00-10:30	<b>Session 3.1</b> Climate policy engagement: Linking global and national levels	<b>Mahmoud Fathallah</b> , League of Arab States <b>Rajae Chafil</b> , Director of Climate Change Capacity Building Centre - 4C, Morocco
10:30-11:15	<b>Session 3.2</b> Private sector engagement in developing key messages and implementing climate change priorities in agriculture	Moderated by: <b>Theresa Wong</b> <b>Neha Rai</b> , Climate change and private sector engagement specialist, SCALA programme, FAO <b>Simon Leiva</b> , Coordinator, Global Alliance for Climate Smart Agriculture (GACSA) <b>James Smith</b> , WBCSD
11:15-11:45	Coffee break	
11:45-12:15	<b>Session 3.3</b> Distilling Messages for UNFCCC workshops	<b>Wojtek Galinski</b> , Senior Advisor – Nature-based solutions, Global Carbon Council, Doha, Qatar
12:15-13:00	<b>Session 3.4</b> Plenary and exhibition Participants finalize display and rate exhibits/key messages	Facilitated by: <b>Theresa Wong</b>
13:00-13:30	Wrap up and closing of workshop	<b>Jean-Marc Faures</b> , Regional Programme Leader, FAO-RNE
13:30-14:30	Lunch	

## C. Country key messages

### Jordan

#### Challenges:

The agricultural sector in Jordan faces several challenges, the most important of which are:

- The scarcity of water resources and the increasing demand from all sectors, especially after the crises that the region was exposed to and the large increase in the population, which is reflected in the water share of the agricultural sector.
- Loss of agricultural lands for residential and commercial purposes.
- The marketing closures of the neighbouring borders, which is reflected in agricultural production, and thus accumulates loss and damage to production.

#### Solutions:

- Water harvesting.
- Introducing modern technologies - smart agriculture.
- Introducing new varieties that bear less water consumption.
- Providing farmers (groups - storage and cooling in order to preserve production at peak time) to avoid spoilage.

#### Support needed:

Jordan has provided a lot of assistance to neighbouring countries and has done its duty and every partner to bear the burdens in addition to the harsh climatic conditions. Contributing to the problems of the agricultural sector in Jordan is a solution for the entire region.

### Sudan

- The most vulnerable groups in front of the risks of climate change are precisely farmers and pastoralists. Most of the lands of Sudan have become colonized and semi-inhabited, meaning that desertification in Sudan has reached 70 percent of the area, due to poor overall management plus sand encroachment on agricultural lands and the Nile River.
- Sudan is not an industrialized country, and therefore its contribution to emissions does not exceed 0.04 percent, but it is more vulnerable to climate change.
- Agriculture in Sudan is irrigated, rain-fed and traditional rain-fed, all of which have been affected by climatic changes.
- Sudan has been affected in recent years by droughts, cyclones, dust storms, desertification, and floods. In light of the political conditions that the country has been going through for several years, studies and project implementation have decreased.

- However, several studies suggested that there would be public participation in adapting and expanding the scope of technology needed to manage smart agriculture.
- There is no coordination between the relevant agencies – agriculture, water, and health. There is also a lack of training.
- Agriculture is treated under environmental conditions preserved with risks. Priority support is given to countries most vulnerable to climate change.

## Iraq

### **Support and assistance:**

- Facilitating the procedure for obtaining financing and supporting the agricultural and water sector, as they affect the achievement of food and water security as a first priority for the country.
- Training executives and negotiators at a high level within the issues of agriculture and water (mentioned under the Paris Agreement) and the negotiations of the upcoming conferences of the parties, with the adoption of the legal language approved by UNFCCC.
- Assisting affected countries with special and most fragile environmental conditions to transfer and localize modern and environmentally friendly technology with sufficient training to apply this technology on the ground.

### **The main challenges resulting from climate change:**

- Desertification and degradation of agricultural land.
- Drought and water scarcity.
- Creeping sand dunes and cross-border forest storms.
- Loss of vegetation cover, soil erosion and lack of fertility.
- Forest degradation and artificial trees.
- Climate displacement and migration from the countryside to the city.
- The spread of epidemics, diseases, pests and insects that affected the agricultural sector, both plant and animal, and its impact on the food security of the country.
- Lack of awareness among decision makers of environmental approaches and the impact of climate change on active sectors.
- Increased rates of poverty and unemployment and lack of financial allocations to support these segments, most of which are affected peasant communities.

### **Solutions:**

- Finding ambitious and cost-effective financing opportunities commensurate with the urgent need to implement agricultural projects that have the potential to reduce the negative impact of climate change.
- Building capacities and qualifying technical and scientific cadres in various sectors to activate climate-smart management.
- Encouraging the private sector and investors to partner in the agricultural field in government projects to ensure sustainable sustainability.

- Providing agricultural job opportunities through the creation of green projects that ensure the participation of fragile local communities in the implementation work for the purposes of sustainability and improving the standard of living and the economy.
- Using alternative water sources (gray wastewater, and so on) and encouraging the use of modern irrigation methods to reduce water wastage and treat water scarcity.
- Encouraging the use of clean, renewable energies and environmentally friendly organic fertilizers in order to achieve a balance between mitigation and adaptation in order to provide safe food for future generations. The 27 parties' influencer must reflect their commitment to helping future generations live a safe and dignified life.
- Moving from commitment to implementation.
- Commitment to provide the necessary funding to adapt to the negative effects of climate change to implement what is stated in NDC especially in the water and agricultural sectors.
- Not to prejudice the food and water security of the affected countries (developing and least developed).
- A sustainable circular green economy.

## Tunisia

- Tunisian agriculture, like the rest of the region, faces a major challenge in providing grain and fodder as a result of the lack of rain, scarcity of water resources and poor soil. This is in addition to other challenges such as wars and an ongoing food and health crisis across the world. This generated terrible, unprecedented pressure on the economy and societies as a whole, threatening food security in particular and public security in general.
- In order to overcome these crises, it is suggested to think about a regional project or program that supports transformation and change in current production patterns that improve the resilience of grain and fodder systems, raise their yields, and adapt to new/updates in the environment/situation. It also proposes to enhance the integration between the different countries/organizations in these systems.

## Syrian Arab Republic

### Problems and challenges:

- The absence of sufficient data to develop an adequate perception of the impact of climate change, and therefore the solutions are inadequate.
- Loss of a lot of vegetation cover, forest trees, dust storms, drought and pests.
- The impact of hostilities to which countries are exposed increases the fragility of the matter and its inability to withstand.
- Non-participation of stakeholders in making decisions regarding the necessary practices to confront climate change.

- Low energy sources and difficulty in accessing them.
- Lack of easy access to food as a result of the crises and high prices globally.

#### **Solutions:**

- Establishing a database at the regional level that is available to countries to assist them in developing the recommended strategies for countries.
- Establishing agricultural projects and programs to reduce these problems, such as climate-smart sustainable agriculture. Reforestation and integrated pest management.
- Neutralizing policies and supporting the country in establishing their own projects to increase their resilience.
- Raising the capacity of civil societies and expanding their financial support regarding climate change impacts and how to deal with it.
- Encouraging the use of alternative energy and establishing projects at the national level to secure energy.
- Securing food sources for people who suffer from a lack of food, as we secure a decent life for them

#### **How to implement:**

- Funding by international organizations to establish in one of the countries to be a source of data
- Financing projects for confronting climate abuses and climate-smart agriculture, facilitating the transfer of projects concerned with this field, and alleviating difficulties in obtaining grants for their implementation
- Project financing away from other considerations to strengthen its resilience
- Financing projects to develop the capacities/capabilities of stakeholders and their participation in negotiation and decision-making processes
- Financing the establishment of alternative energy projects using solar, animal (manure) or other energy sources and financing loans at the level of the individual and the family to secure their energy needs
- Assistance in financing projects that provide food for the family and achieve their self-sufficiency

## **Egypt**

- The agricultural sector is one of the most vital sectors in Egypt. It contributed 15 percent of the national income and contains 30 percent of the total employment. Small farmers and the Delta Valley represent 90 percent of the total farmers. The number of holdings is 4.5 million farmers with 2 million feddans.
- The agricultural sector is fragile and vulnerable to shocks, especially in the Delta region and the northern coast, which suffers from the phenomenon of salinity and sea level rise, which represents a major threat to small farmers in this region.
- The losses of Egyptian crops due to climate phenomena were estimated at 10 percent by 2050. Thermal fluctuations had a share of 4.5 percent - salinity 1.6 percent, water scarcity by 4.1 percent, and productivity, for example, corn was affected (less production) by 16.2 percent, sugar crops by 12.5 percent and wheat by 18 percent.

### **The solutions lie in:**

- Developing policies to adapt to the phenomena of climate change to support the agricultural sector, especially small farmers in the valley, the delta and the northern coast.
- Establish early warning systems.
- Improve water efficiency systems.
- Sustainable development of land and water editorial.
- Improving the livelihood of rural people.
- Create a map of weak indicators in the agricultural sector.
- Preparation of crop pattern maps and summer maps.
- Establishing an insurance system for field and seed crops.
- Development of livestock and fisheries.
- Protecting lands from desertification.

Requesting assistance from international bodies to strengthen technical capacities and climate financing to implement adaptation plans in the climate change context, on the condition of non-interference in the internal agricultural policies of Egypt.

## **Mauritania**

### **Problems:**

My country Mauritania is a desert coastal location. The country does not contribute to high gas emissions and it is exposed to floods, non-equal rainfall (distribution of rain from one side and from the other, with 700km exposed to floods (such in Hadass Al-Maskin) that impact the agricultural production and the environmental and water-controlling grains (such as Al-Fashi)

### **Solutions:**

The solution is through water control and obtaining agricultural varieties that are resistant to the previous elements. It is approved in water control, so reclamations increase in irrigated lands, dams and barriers in the fissure (ask for support).

We summarize the support required mainly in internal financing through internal and external capital and strengthening capacities/capabilities in all related fields.

To whom the request is directed: To all the technical partners to strengthen the decisions and to all the financiers who care about integrated development and responsibility for the countries on the road to growth and to the national and foreign private sector investors on conditions.

## **Lebanon**

### **Challenges and obstacles:**

The current socio-economic situation of the country is considered to be the major obstacle to moving forward in adaptation/mitigation measures. The national budget is devaluated and NGOs and international donors are shifting their priorities from "environmental" topics to more livelihood, as this is the most urgent.

There is also a lack of knowledge coordination in some technical aspects such as renewable energies, forest fires, and so on.

**Solutions:**

- Develop more intra-MENA countries' financial support (Green Middle East initiative) as well as local capacity building for negotiators and national staff to be able to access international environment funds (GEF, GCF ...).
- Improve the exchange of technical expertise in essential topics such as reforestation, forest fires, and ecosystem restoration.

**Request for support:**

- Technical support is requested in renewable energy use for agriculture, forest fires.
- Financial support is needed both at the global level and also as micro-grants/credits for small and medium-size farmers that would need this support in order to implement proposed actions.

**Palestine**

- In Palestine, protracted conflict, economic stagnation, restricted access to resources and Climate Change poses serious challenges to the daily life of the Palestinian.
- We are facing two challenges hindering us from implementing the agricultural climate action plan, the Occupation and lack of financial resources.
- Knowing that sustainable development under occupation is not possible or achievable, as the occupation is controlling and exhausting our natural resources, and they have full control of those resources. The financial resources which considered a serious challenge to the implementation of the agricultural NAP as a result of politicizing the operationalization of some initiatives.

**Oman**

It is important to prepare a national plan for zero carbon emissions in the agriculture sector in Oman, as there is currently no such plan in place. However, a lack of expertise poses a challenge, particularly in the elaboration of such a plan. Therefore, Oman is seeking support from the FAO to assist in the development of this plan.



