

POLICY BRIEF

Climate Change and Social Vulnerability

USING MULTI-SECTORAL INDICATORS TO ASSESS COMPOUND DROUGHT RISK AND SOCIAL VULNERABILITY IN JORDAN

An Outcome of the Policy Dialogue on Climate Change and Social Vulnerability hosted by the Arab Water Council in partnership with the World Food Programme on June 21st in Amman, Jordan



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AN OUTCOME OF THE POLICY DIALOGUE ON CLIMATE CHANGE AND
SOCIAL VULNERABILITY HOSTED BY THE ARAB WATER COUNCIL IN
PARTNERSHIP WITH THE WORLD FOOD PROGRAMME
ON JUNE 21ST IN AMMAN, JORDAN

ARAB WATER COUNCIL AND WORLD FOOD PROGRAMME
WITH SUPPORT FROM Sida

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INTRODUCTION

Social Vulnerability to climate change is a topic that needs greater attention in the context of climate change responses in the Arab region.

Between November 2020 and June 2022, the Arab Water Council, in partnership with the World Food Programme, carried out a joined research project titled: "Climate Change and Social Vulnerability: Using Multi-Sectoral Indicators to Assess Compound Drought Risk and Social Vulnerability in Jordan".

The study tested an innovative methodology based on multi-sectoral indicators, GIS analysis, and both quantitative and qualitative research methodologies to assess drought risk in Jordan. The research worked at both national level, mapping a total of 31 indicators based on over 40 datasets producing over 100 maps, as well as on the local level, by conducting a case study in the village of Deir El Kahf, Mafraq. Besides its multi-sectoral approach, the study represents an invitation to allow more room for social indicators in climate risk assessments and to include the experiences of local communities.

The research forms part of the SDG-Climate Facility Project, a multi-partner regional platform that works on climate-oriented solutions that address climate challenges, while also generating co-benefits across the Sustainable Development Goals. The initiative is led by UNDP Regional Hub in Amman and brings together the League of Arab States, the Arab Water Council, and multiple UN Agencies (WFP, UNDRR, UNEP-Fi, UN Habitat).

On June 21st, 2022, the Arab Water Council, in partnership with the World Food Programme, hosted a Policy Dialogue on Climate Change and Social Vulnerability in Amman, Jordan. The outcomes of this participatory workshop are presented in this policy brief.

CLIMATE CHANGE AND SOCIAL VULNERABILITY

"Climate change is a global emerging risk that is challenging all of us to rethink not only how we live, but also how we manage our resources, farm, produce, and consume. The impacts of climate change are being felt around the planet as we speak. Excessive heat waves, drought, storms, floods, as well as change in the yearly seasons are climate change effects we have been witnessing around the globe over the past few years. In Jordan, a country that is already among the most water scarce on the planet, climate change may exacerbate existing drought problems – thus affecting lives in cities, in rural areas, infrastructure, farms, food production processes, industries and other economic sectors. Climate change threatens our well-being, our quality of life, our economic prosperity, and our health" (Adel Obaidat, Ministry of Water and Irrigation, Opening Speech).

Social vulnerability remains an under-researched component of climate research. People are differently affected by climate change impact. Communities that are more socially vulnerable to climate change are more sensitive, and less able to adapt to climate change based on pre-existing social

Social vulnerability refers to "potential harm to people" (UNDP, 2016), or "the inability of people, organizations and societies to withstand adverse impacts from multiple stressors to which they are exposed... and the ability to cope with or recover from its impact" (Arab Water Council, 2017, 8).

characteristics and processes. These include ethnicity, gender, age, poverty, unemployment, resource access, health, and migration status. Water security, food security, access to natural resources and public services, as well as social protection also play important roles in sensitivity and adaptive capacity to climate change impacts. Assessing the social vulnerability of different communities plays an important role in enhancing our understanding of climate change impacts and of how we can build community resilience in the face of climate change.

PROPOSED ACTION POINTS:

- » Develop a better understanding of social vulnerability in the context of climate change
- » Identifying socially vulnerable groups and produce comprehensive vulnerability maps
- » Enhance our understanding of the complexities of climate change impacts, including their interaction with pre-existing social vulnerability factors
- » Build a knowledge base on climate risk that is based on multi-sectoral assessments, as well as more complex and comprehensive social vulnerability indicators
- » Generate more local evidence on the impact of climate change

HOW?

- » Identify research gaps and address them with targeted research approaches
- » Mobilize funding for work on climate change and social vulnerability (both research funding and funding for the testing of possible solutions)
- » Ensure that climate change assessments, research, and policy approaches address and include social vulnerability
- » Fund and support multi-disciplinary research on climate change risk and impacts that considers social indicators and enhances the collection of local evidence
- » Share and disseminate social vulnerability assessments in the context of climate change
- » Connect with scholars and experts who have studied climate change in the context of different academic fields and engage with their research and findings
- » Carry out more research on the ground and with communities, ground-truthing national level data

MULTI-SECTORAL APPROACHES TO ADDRESS COMPOUND RISK

“Climate change effects are complex and multi-sectoral. In fact, climate change can exacerbate a multitude of pre-existing risks. Such risks may entail water scarcity and food security, effects on economic productivity, but also social dimensions such as different dimensions of social vulnerability, such as poverty, inequality, unemployment, and health. Climate change intersects with all of these risks in complex ways, creating what we refer to as compound risk – amplifying certain types of risks, leading to different kinds of risks reinforcing each other, and creating new and additional kinds of risks....our policy approaches and solutions have to account for the complexity of risks that climate change represents. They have to bring together and integrate multiple policy sectors, be based on data from various fields, and address climate change effects in an integrated way”
(Adel Obaidat, Ministry of Water and Irrigation, Opening Speech).

Climate change is a threat multiplier that can amplify other, pre-existing risks and vulnerabilities. Climate change risks are complex and compounding. Conceptualized as compound risk, climate change becomes a multi-directional force whose impacts span across a multitude of sectors and processes. Problematically, our political responses to climate change are often informed by one-dimensional, “silo-style” approaches. Methodologies used to assess climate change risk are often based on a very limited range of social vulnerability indicators that do not reflect the complexity of climate impacts.

The complexity and multi-sectoral nature of climate change impacts calls for innovative, complex, and multi-sectoral policy responses. Social vulnerability, in particular, may not always seem directly related to the direct and indirect environmental impacts of climate change. Reducing poverty, enhancing employment, or implementing gender equality may contribute to reducing social vulnerability and building climate resilience. At the same time, social protection mechanisms, social and medical insurances, tax policies, subsidies, and government incentives, will have to be revised to include and specifically target climate risk. Climate change mitigation and adaptation policies need to be integrated with environmental, social, and economic, as well as infrastructural policies.

PROPOSED ACTION POINTS:

- » Climate change approaches should be based on an understanding of climate change as compound risk (acknowledging the multi-dimensional character of climate impacts and the interplay of risks)
- » Climate change assessments and policy approaches should be based on multi-sectoral indicators (e.g. natural climate indicators, economics, infrastructure, social vulnerability)
- » Multi-disciplinary teams and cross-cutting policy approaches that integrate several ministries and stakeholders representing different sectors can ensure a multi-sectoral approach
- » Strengthen social policies and ensure that social protection mechanisms actively address climate risk protection

HOW?

- » Identify climate change risks and impacts for different sectors and make a climate impact chain that touches on various sectors
- » Review existing climate change policies and ensure they address social vulnerability
- » Redesign social protection policies to include climate change as an emerging risk
- » Engage researchers from different disciplines in developing your methodology (climate and environmental researchers, social researchers, economic researchers, agricultural researchers, hydrologists)
- » Involve different line ministries in developing policies on climate change mitigation and adaptation
- » Collaborate with the private sector in designing and offering protection mechanisms, such as loans or insurances
- » Build connections between different policy instruments
- » Tap into multiple streams of funding

ENGAGING LOCAL COMMUNITIES

Local communities are the first responders to climate change. It is their livelihoods that are on the line as sudden or slow-onset climate change effects strike. The case study conducted in Jordan as part of the AWC / WFP study showed that the community is experiencing drought impact on their livelihoods more drastically than the national level data suggests. For this reason, the building of local evidence and local level data is crucial in order to develop a full understanding of climate change impact. Unfortunately, community representatives are seldom directly engaged in designing solutions and policies. Moreover, policy responses do not always directly address local needs.

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PROPOSED ACTION POINTS:

- » Design comprehensive, multi-sectoral climate change policies that protect communities against compound risk and that foster local leadership

HOW?

- » Build participatory research and policy-making approaches designed to give a voice to local communities – these could be case studies, collecting success stories and best practices, forming committees that engage local associations and community representatives, conducting study tours and excursions, creating platforms that give local communities a space to present their stories, collecting oral histories
- » Bring community representatives to the discussion table and design policies based on local needs
- » Ensure that policies respond to the needs of local communities, and that local research results and evidence inform policies and decision-making
- » Test possible solutions on the ground, in partnership with local communities
- » Partner up with local NGOs and civil society organizations
- » Learn from local communities, their experiences with climate change, their needs, and their strategies for climate change adaptation

SPECIFIC POLICY RECOMMENDATIONS FOR JORDAN

Based on the group of 31 experts who attended the Policy Dialogue, representing various Jordanian ministries, different UN agencies, three Jordanian universities, an international organization, local NGOs and civil society representatives, the following specific recommendations for Jordan emerged from the workshop conducted on June 21st, 2022:

WATER DISTRIBUTION AND MANAGEMENT POLICIES:

- » Ministry of Water and Irrigation should re-allocate the monthly per capita water share based on real time reporting on water availability in different parts of the kingdom.
- » Ministry of Water and Irrigation should ensure a better enforcement of laws, for example on well drilling and the level of drawing water from wells.

WORKING ON INFRASTRUCTURAL DROUGHT RESPONSES:

- » Implement more water harvesting infrastructure across Jordan – this includes dams, household-based water harvesting devices, and underground tanks. Refurbishing historical water harvesting infrastructure across Jordan represents an additional strategy. Priority should be given to nature-based solutions for water harvesting.
- » Restore local dryland and shrub ecosystems to mitigate floods, reduce water losses, and offer more grazing grounds for pastoralists.

According to a participant from a local community, there is the following Bedouin saying: „Livestock should eat green grass“.

SOCIAL POLICIES:

- » Conduct a study on sensitivity and vulnerability that identifies the needs and priorities of vulnerable communities and allows for socially inclusive planning. Identify spending priorities based on this assessment. Mapping social vulnerability and conducting calibration and validation exercises on existing studies.
- » Strengthen the link between water and health in policy approaches, and the collaboration of the Ministry of Water, the Ministry of Health, and the Ministry of Social Development on issues such as water-borne diseases or diarrhea caused by the absence of hygiene due to water scarcity. This includes animal hygiene, which requires closer collaboration with the Ministry of Agriculture.

ENHANCING SOCIAL PROTECTION AND RESILIENCE:

- » Boost food security by helping communities to increase their productivity and resource efficiency.
- » Deliver targeted cash aid to support agricultural livelihoods.
- » Enhance food security and ensure food access for the most vulnerable communities.
- » Design targeted social protection mechanisms that help maintain livelihoods and standards of living in the face of climate change impact.

STRENGTHENING THE SUPPORT FOR AGRICULTURAL LIVELIHOODS:

- » Ministry of Agriculture should improve the availability of vaccinations for livestock and offer extension programs on growing drought resistant crops and avoid the cultivation of water-intensive crops, as well as on new, climate-smart technologies.
- » The National Agricultural Research Center should work on the protection of rangelands by monitoring rainfall and controlling the use of grazing lands and illegal hunting activities, limiting grazing and hunting rights to particular seasons of the year.
- » The National Agricultural Research Center should strengthen its efforts on studying climate-smart crop patterns, climate change impacts on crop diseases, raising awareness about climate-smart agriculture, and providing assistance and advice to farmers in the field.
- » Establish special risk assessments and risk funds that help protect and strengthen local livelihoods.
- » Ministry of Social Development to design special social protection mechanisms that target the loss of agricultural livelihoods due to climate change impacts.
- » Various line ministries have to start working together in sharing data and developing joint and integrated policy approaches that reflect and address the multi-sectoral impact of climate change.

STRENGTHENING RESEARCH:

- » The ministries should work together with academia to conduct more research on climate change and drought impact.
- » There should be more support for climate and social vulnerability research and funding.
- » There needs to be a national data base that pools climate and social vulnerability data from different ministries. The Department of Statistics currently offers a web-based platform, but there needs to be better coordination with different ministries and data should be made available free of charge.
- » More big data and information technology are needed to monitor climate change, drought impact, and social vulnerability.

PROVIDING ECONOMIC INCENTIVES FOR VULNERABLE COMMUNITIES:

- » Help local communities diversify their livelihoods.
- » Steer investment in second and tertiary sector towards communities that are losing their agricultural livelihoods.
- » Provide vocational training to those who are trying to shift to an alternative source of livelihoods. Ensuring that vocational training addresses the needs of the labor market.
- » Developing micro loans based on conditions that are easier to meet for vulnerable communities, ensuring that loans do not create additional debt traps.

STRATEGIC APPROACH:

- » Boosting the implementation of the nexus framework in the water, energy, and food sectors.
- » Ensure that actions on climate change and social vulnerability are SMART (specific, measurable, time-bound, relevant, and implementable).
- » Design a measurable implementation plan that is based on scientific data, studies, and a periodical review of drought conditions across the country.

ENGAGING A VARIETY OF STAKEHOLDERS:

- » Ministry of Water and Irrigation
- » Ministry of Agriculture
- » Ministry of Social Development
- » Ministry of Environment
- » Ministry of Health
- » Directly engage local communities by applying a participatory approach to policy-making
- » NGOs and civil society organizations to create direct communication between policy-makers and communities
- » Regional organizations such as the Arab League and the Arab Water Council
- » UN Organizations such as UNDP, WFP, FAO, ESCWA, UNICEF

IMPLEMENTING PARTICIPATORY APPROACHES:

- » Set up and Implementing to Implement a flexible system for each ministry for real-time reporting on climate change and drought relevant developments and to allow for flexible, multi-sectoral governance
- » Implementing a bottom-up approach in designing climate change policies, go to local communities, listen, learn, and assess their needs.
- » Propose projects based on community needs and set up local evaluation and assessment processes that help evaluate the success of these projects.
- » Communities need a direct contact in government institutions in order to voice their needs and frustrations.



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