





Regional Workshop on "Strengthening the Understanding of Social Vulnerability in the Arab Region"

FINAL REPORT



InterContinental City Stars, Cairo, Egypt September 25 – 27, 2016

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Acknowledgements

This report is the outcome of the 3-day **"Regional Workshop on Strengthening the Understanding of Social Vulnerability (SV) in the Arab Region"** organized in Cairo, Egypt, in September 25 – 27, 2016, in joint cooperation between the Arab Water Council and the World Food Program (WFP). The Workshop was held within the framework of the LAS Climate Risk Nexus Initiative addressing Food Security, Water Scarcity and Social Vulnerability (LAS/CRN) launched in November 2015.

Appreciation is extended to H.E. Dr. Mahmoud Abu-Zeid, President of the Arab Water Council, and to H.E. Dr. Hussein El-Atfy, Secretary-General of the Arab Water Council, for their full support and guidance.

Thanks are due to Prof. Dr. Gamal Siam, Professor of Agricultural Economics, Cairo University, for preparing and presenting the Social Vulnerability Report and SV Guidelines for the Arab Region. Appreciation is also extended to WFP, headed by Mr. Carlo Scaramella, for sponsoring the Workshop and to the WFP team of professionals, Mr. Oscar Ekdahl, Ms. Maha Gaad, and Ms. Muriel Calo for their distinguished effort to make this event a success. The assistance of Prof. Wadid Erian, Professor of Soil Science, Cairo University, and LAS Senior Advisor, in the Workshop activities is to be specially recognized.

The Workshop successful outcomes would not have been possible without the competent and proficient efforts of AWC staff members, Ms. Mervat Hassan, Eng. Heba Al Hariry, Ms. Manal Abdel Aal, Ms. Sherine Youssef, Ms. Yara Al-Nagdi, Ms. Reham Hussein, Ms. Menna Ghoneim and Mr. Ahmed Mohsen who took the responsibility of session coordination and preparation of the technical program, administrative assistance and communications, financial settlements, logistical arrangements, and public relations. The efforts of the ICT Team from AWC, Eng. Mohamed Awadallah and Eng. Hossam Gebril are not to be ignored. Thanks to the joint efforts of all team members from AWC & WFP, this work was a success.

This report was prepared by Dr. Mary Halim, AWC Technical Consultant, and was peer reviewed by Prof. Dr. Abdel-Aziz Ibrahim, Emeritus Prof., Institute of National Planning.

Background and Rationale

The Arab Region is expected to face a considerable challenge over the next four decades with projected population of 780 million people by 2050. Growing resource scarcity, particularly of water, will increasingly constrain food production growth, and climatic stresses will likely shrink Arabian farmers' abilities to produce grains. Meanwhile, growing demand for high-value foods will put further pressure on the natural resource base.

The impacts of societal development are driving environmental changes that are potentially more extreme than at any other time in recorded history. Moreover, the complex interplay of social and economic factors in the environment is increasing the vulnerability of both people and environments.

It is important for policy-makers to understand and evaluate social problems particularly those related to different types of vulnerability as affected by various sources of risks to enable them identify the adverse effects of risks at different levels over time in terms of various aspects and find appropriate interventions that help reduce risk in the right place and the right time. It shall also enable them in crafting effective climate change policies and response strategies. From here stemmed the importance of this regional assembly to strengthen the perception of the concept of social vulnerability and its applicability in the Arab region.

Workshop Objective

The main objective of this workshop is to improve the understanding and evaluation of social vulnerability as affected by major sources of risks; particularly poverty, climate change, water scarcity, food security, and conflicts. The workshop was intended to discuss the applicability of these risks to the Arab countries and to identify their adverse effects in the region. It also aimed at addressing the adaptation of strategies, policies and programs necessary to reduce vulnerabilities and evaluate current efforts.

During the workshop, the outcomes of AWC/WFP regional report on "Strengthening the Understanding of Social Vulnerability in the Arab Region" was presented and discussed. The report is part of AWC/WFP cooperation program under the Climate Risk Nexus (CRN) Initiative by the League of Arab States (LAS) that aims at developing capacities of LAS and Member States to enact decisions and policies that better manage the growing complexity of risks and support the resilience of people and countries.

The workshop allowed the participants to:

- Understand the concept of social vulnerability and its applicability in the Arab Region.
- Share experiences that are common to all countries, identify types of vulnerabilities unique to each country and identify data sources and measurements of Social Vulnerability Index (SVI).
- Strengthen regional cooperation and knowledge networks across disciplines.
- Respond to gaps in science and data for risk management.

- Enhance use of indicators and early warning systems.
- Support decision-makers and enhance capacities for addressing key risks, approaches to build resilience and ways of supporting transformational change in development policies in the Arab Region.

Workshop Agenda (see Annex 1)

List of Participants (see Annex 2)

Photo Gallery (see Annex 3)

Presentations (see Arab Water Council website: www.arabwatercouncil.org)

Wrap-up for the 3-Day Workshop Day (1)

Opening Ceremony

In his Opening Address, **H.E. Dr. Mahmoud Abu-Zeid**, President of the Arab Water Council, welcomed the participating institutions and guests, expressing that the workshop is held within the framework of the LAS Climate Risk Nexus (CRN) Initiative addressing food security, water

scarcity and social vulnerability to build resilience in the Arab Region. His Excellency highlighted the objectives of the workshop, emphasizing the dire need for evidence-based science to support policy decisions. He indicated that the workshop aims at providing scientific basis for disaster and hazard reduction policies through the development of measurable and map-able multi-level indicators for analyzing societal



vulnerability and resilience to environmental hazards, climate risk and extreme events in the Arab region. Dr. Abu-Zeid concluded his Opening Remarks by expressing high hopes to strengthen regional cooperation and knowledge networks across disciplines, to respond to gaps in science and data for risk management, to enhance the use of early warning systems, and to support decision-makers for addressing key risks and approaches to build resilience and ways of supporting transformational change in development policies in the Arab Region. His Excellency Dr. Mohamed Abdel Aty, Minister of Water Resources and Irrigation of Egypt,

then gave his speech highlighting the importance of the theme of the workshop mentioning examples from the Ministry's activities and projects in protecting the hydraulic structures along the Nile channel. He added that the Ministry is keen to include the Climate Change adaptation and mitigation policies into the integrated water resources management national policy in an attempt to cope with the global sustainable development goals.



Dr. Hammou Laamrani representing LAS, stressed the fact there is a need for a common vision on the Arab scale to deal with the problem of water scarcity and its impact on poor and vulnerable communities. He called for developing the whole system of scientific research in order to create a new mechanism for reducing social vulnerability in the Arab region, taking into consideration the specific characteristics of each county. He also called for initiating appropriate Climate Change Adaptation and forecasting programs in the anticipated poor and vulnerable areas, indicating that this is the focus area of the LAS Climate Risk Nexus Initiative together with its partner regional and international institutions.

Mr. Carlo Scaramella, Deputy Regional Director of the Regional Bureau of the World Food Program (WFP), clarified that the special circumstances of vulnerable populations living in fragile or conflict-affected contexts will need to be taken into account if we are to achieve food security and indeed any sustainable development. He highlighted the need for building strong partnerships in the region, as well as the importance of focusing on social protection and safety nets as an approach that can tackle social vulnerability in the Arab region, particularly at this time of prevalent humanitarian crises across the region. He indicated that this is an area where WFP has invested a lot over the years. Mr. Scaramella also emphasized the timeliness of this Social Vulnerability Workshop in link with the upcoming COP22 event which will be taking place in Morocco in mid-November 2016. Mr. Scaramella concluded his remarks by stressing the fact that, with a better understanding of the challenges, we can identify the opportunities within them and that a balanced approach with special focus on the poorest, the food insecure and the most vulnerable, is required if we are to accelerate action towards stability and achievements of the SDGs in the Arab region.

Keynote Speeches

The session was chaired by H.E. Dr. Mahmoud Abu-Zeid, President of AWC, who introduced the following invited Keynote Speakers and distinguished figures:

- 1. H.E. Dr. Gouda Abdel-Khalek, Former Minister of Solidarity and Social Justice and Supply and Internal Trade, and Professor of Economics, Faculty of Economics and Political Sciences, Cairo University.
- 2. Ms. Yogita Mumssen, Senior Infrastructure Economist, Water Sector, World Bank.
- **3.** Dr. Alfredo Impiglia, Delivery Manager of the Regional Initiative on Small-Scale Family Farming for the Near East Region, FAO.
- 4. Dr. Tarek El Nabolsy, Director of Social Policies & Development Department, Head of Social Sector Office, LAS.

Dr. Gouda Abdel-Khalek dealt with the "Prospects and Challenges of Arab Food Security and its Implications for Social Vulnerability." He revealed that the conflicts in the region have led to waves of immigration and social tensions, and contributed to the lack of food and water security in many of the countries of the region, especially in Syria and the occupied territories, a fact that entails engaging stakeholders and building partnerships to develop and prioritize policies and strategies to avoid conflicts. Dr. Abdel-Khalek emphasized the necessity of providing reliable data on climate risk and disaster management, land degradation, lack of food and water security and social vulnerability to the decision-makers. He also called for the establishment of a mechanism to evaluate the efforts made by certain individual countries to support and promote the exchange of good practices and knowledge among the region's networks, taking into account the perspective of social fragility in rural and urban data, as well as the demographic change, which is expected by 2050 to double the number of the population living in urban areas.

In her turn, **Ms. Yogita Mumssen**, the World Bank representative, addressed the issue of water security and why it matters for social vulnerability. She also explained the Bank's engagement in investing in water to reduce social vulnerability. Ms. Yogita warned of the implications of the increasing conflicts on the regional and international levels, and the impact on people, indicating that the number of displacements and re-settlement continues to increase, and the situation of refugees is ultimately harsh particularly during winter, because of the intensive rain and cold and lack of basic supplies to the population of the camps. In her concluding remarks, Ms. Yogita emphasized that investments in water have wider social and economic benefits and that globally, but especially in MENA, these need to be smart investments that make the most of the limited freshwater resources available.

Subsequently, **Dr. Alfredo Impiglia**, representative of the FAO Organization, addressed the issue of "Social Protection in Agriculture to reduce Vulnerability in the Arab Region." He called for adopting an integrated and holistic approach to cope with the risks of climate change, which takes into account the integrated food systems, the easy access and economical way to supplement food, and the availability of crop yield, as a central and fundamental pillar in the region.

Finally, **Dr. Tarek Nabolsi**, representative of the League of Arab States, in his keynote speech focused on "People Characteristics and Social Vulnerability in the Arab Region." He hoped to implement the recommendations to be concluded from the workshop, particularly with regard to the development of strategies and policies aimed at overcoming regulatory, financial and informatics barriers, to increase the investment in climate change and disaster risk reduction for achieving development based on commitment and dedication.

Within the same context, in a declaration to the Press, **Dr. Nada El-Agizy**, Head of Sustainable Development Department at the League of Arab States, emphasized the need to strengthen the capacities of the Arab countries to address social vulnerability at the local, national and regional levels, in addition to addressing the causes of poverty and climate change through knowledge, politics, technology and innovation dialogue in the interconnected and related fields and how to take advantage of available funding mechanisms, demanding a prompt follow-up of the implementation of policies for optimal use of water, and to develop scenarios that reduce the risk of climate impacts on this vital sector, as well as performance evaluation, and monitoring of progress and challenges.

Panel Session (1)

The Session dealt with **"Social Vulnerability Background from Concept to Measurement,"** and was moderated by H.E. Dr. Hussein El-Atfy, AWC Secretary-General.

In his introductory remarks, Dr. El-Atfy started by drawing attention to the unique challenges of water crisis and food insecurity in the Arab region which - aggravated by climate variability, extreme weather events, unplanned migration, enforced people displacement, conflict and terrorism, and major political changes - have very serious implications on social vulnerability, on human life, health,



environment, resources and services, growth and development. He added that the damage was estimated to reach 20% of GDP or more in the 2nd half of this century, and that

unfortunately the most vulnerable are the poorest countries and populations. On the other hand, the good news is that year 2015 is the Year of Global Commitment towards achieving the SDG's (17 goals) where the inter-linkage and integrated nature of the SDG Goals and their relation to social vulnerability is of crucial importance in ensuring that the new global agenda is realized, without leaving anyone behind particularly in the Arab region.

Dr. El-Atfy then indicated that the purpose of the first panel session was to briefly describe social vulnerability concepts, its applicability and applications in the Arab Region, focusing on the main drivers affecting social vulnerability and their linkage with SDG goals, while indicating relevant strengths and weaknesses in current strategies, policies, and capacities. The session was also planned to discuss how to enhance and empower women and civil society participation to achieve gender equality, and how to strengthen regional cooperation and build partnership in favor of community resilience.

The session included the following panelists who represent the principal partner organizations and their collaborative efforts with the Arab Water Council:

- Dr. Gaith Fariz, Director of UNESCO Regional Bureau of Sciences in the Arab Region – UNESCO;
- Mr. Oscar Ekdahl, Regional Program Officer, Regional Bureau for the Middle East, North Africa, Central Asia and Eastern Europe – WFP;
- Dr. Kishan Khoday, Regional Team Leader for Climate Change, DRR & Resilience UNDP;
- 4. Dr. Abdallah Droubi, Regional Advisor, German International Cooperation GIZ;
- 5. **Ms. Fidaa F. Haddad**, Programme Manager Drylands, Livelihoods and Gender Programme **IUCN/ROWA**.

The panelists first introduced the definition of Social Vulnerability, Environment, Water Crises, Good Governance, among others. Each of them gave a short introductory speech as follows:

Dr. Gaith Fariz, on behalf of UNESCO, expressed that there are serious consequences faced by the development endeavors in the Middle East and North Africa due to the decline in crop productivity, scarcity of water resources, and rising sea levels, which puts the livelihoods of millions of people at risk, hence need immediate action and joint forces on the regional scale.

Mr. Oscar Ekdahl, WFP expert, highlighted how WFP has quadrupled the number of people it assists with food security, from 6.8 million in 2011 to over 25 million in 2016. Mr. Ekdahl underlined the close inter-linkages between food security and social vulnerability. In his

remarks, Mr. Ekdahl focused on key issues from a food security perspective, referring specifically to the need to focus on livelihoods of people, and most importantly on the physical and economic access to food-related issues as a main determinant of food security, complementing a focus on agricultural production and availability which has been a dominant focus in the Arab region. He also highlighted the need to understand social vulnerability in urban environments; as by 2050, the increase in population and the demand for food could double, with twice the number of people living in urban areas compared to rural areas, consequently leading to significant restructuring of the patterns and forms of food could consumption. It was suggested that addressing these issues requires approaches that are able to manage short- and longer-term challenges at the same time, meeting immediate needs while tackling chronic and structural challenges critical to social vulnerability.

Dr. Kishan Khoday, representing UNDP, highlighted the importance of developing frameworks to cope with the risks faced by the MENA region, as a result of climate change and natural

disasters, and the serious impact on food imports. He also stressed the role of governments in policy-making at national and local levels, as well as the role of international organizations in supporting governments regionally and internationally, and in capacity building to address those risks. Dr. Khoday also presented UNDP Strategic Plan (2014 – 2018) in combating poverty and



social vulnerability, as well as UNDP Climate Change cooperation revolving around two axes: (1) Climate Adaptation and Disaster Risk Reduction, and (2) Climate Mitigation and Sustainable Energy. Snapshots to UNDP activities towards sustainable development were given with three case studies from Egypt, Tunisia and the Sudan, namely, Adaptation to Climate Change in the Nile Delta, Egypt, through Integrated Coastal Zone Management; Addressing Climate Vulnerabilities and Risks in Vulnerable Coastal Areas of Tunisia; and Building Resilience in Agriculture/Water Sectors to Adverse Impacts of Climate Change in Sudan.

Finally, Dr. Khoday presented a hint about UNDP support to combat Social Vulnerability in different countries such as the Occupied Palestinian Territories, Iraq, Jordan, Lebanon, Sudan and Yemen.



As for **Dr. Abdullah Droubi**, representative of GIZ, he expressed the need to provide tools and techniques to avoid the risks posed by climate change and disasters, increased land drought, food insecurity and water scarcity and the impact on human development regionally. He presented a methodology for an integrated vulnerability assessment of climate change in the Arab region, developed within the framework of implementation of RICCAR initiative "Regional Initiative for the Assessment of the Impact of Climate Change on Water Resources and Socio-Economic Vulnerability in the Arab Region." Dr. Droubi concluded his presentation by stating that the selection of indicators is an iterative process which includes a multitude of considerations such as the correlation between indicators, data availability, quality of data, etc. For this reason, several quality criteria were used during the indicator selection process: validity, preciseness, practicality and affordability, simplicity, sensitivity and clear direction.





Last but not least, Ms. Fidaa Haddad, representing IUCN/ROWA, addressed the issue of gender inequality, indicating that the new sustainable development agenda offers a unique opportunity for governments, women's organizations, and international development partners in the Arab region to renew and deepen their commitment to gender equality and women's empowerment based on lessons from MDGs. She added that the new agenda adopts a twotrack strategy, achieving gender equality and empowering of women (SDG5) which is a crosscutting issue in many of the 17 SDG goals and 169 targets. Also the new agenda places a significant emphasis on legal and policy reforms to address some of the structural causes of gender discrimination, including social norms, gaps in legal right to land and other resources. In this concern, Ms. Fidaa emphasized the need to call for a holistic policy approach that fully acknowledges gender linkages and dynamics across all groups in their economic, social and environmental dimensions. This can be possible through incorporating gender perspective into program budget and in operational mechanism for the new SDGs, establishing trust-based partnerships for action between local governments, local communities and NGOs, and addressing gaps in law. Finally, Ms. Fidaa stressed the importance of considering women as agents of change.

As a wrap-up of the panelists' statements, the following issues were highlighted:

- 1. The aim of the LAS/CRN Initiative is to get together all the sectors for integrating activities with a holistic view.
- 2. The challenges facing the Arab region and the proposed integrated solutions which are to be looked at in a nexus approach.
- 3. Cost-benefit analysis (cost-effectiveness) as an approach (or a tool) to weigh between options.
- 4. Regional cooperation is a must for strengthening the understanding of social vulnerability.
- 5. SDGs call for a more integrated approach to manage inter-connected risks between social, economic and environmental pillars of the new development agenda. Integrated approaches are at the core of the new SDG implementation agenda. Climate Change, for example, is mentioned in multiple places of the SDGs and the challenge is to establish inter-linkages between them.
- 6. Examples from UNDP activities and projects on "Addressing Climate Vulnerability and Risks" in different counties (Egypt, Tunisia, Sudan).
- 7. Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters.
- 8. Integrated Climate Change Strategies including: Climate Adaptation and Disaster Risk Reduction, and Climate Mitigation and Sustainable Energy.
- 9. Many CC adaptation interventions and policies in the region have taken place without proper understanding of how and why they were planned and how they needed to be implemented.
- 10. There is a need to incorporate gender perspective into program budget and in operational mechanism for new SDGs.

Finally, H.E. Dr. Hussein El-Atfy addressed the following question to the panelists to be answered, each from his/her experience:

"The Arab government policies have a major role either to exacerbate, or even create, sources of SV (with the exception of SV to climate change), or to reduce / adapt to, SVs."

To what extent this statement is true? Provide evidence for the Arab Countries, such as the share of social services in the public budget, share of agriculture, expenditure on R&D...etc.

In conclusion, and in view of the different viewpoints, he ended that there is a need for more studies to answer this question.

Panel Session (2)

The Session dealt with "Regional Knowledge-Sharing in Social Vulnerability," and was moderated by **Dr. Hammou Laamrani. The session aimed at** briefly describing the current regional experiences in Social Vulnerability, its applications in the Arab Region focusing on the relevant strengths and weaknesses in current methodologies for measurement and in developing indicators.

The session included the following speakers:

- 1. **Dr. Amr Abdel Meguid,** Regional Programme Manager, Environmental Governance Programme **CEDARE**
- 2. Dr. Clemens Breisinger, Director of International Food Policy Research Institute (IFPRI)
- 3. Dr. Aden Aw-Hassan, Social Scientist ICARDA
- 4. Dr. Emad Adly, North Africa, West Asia General Coordinator, RAED Egypt

Dr. Amr Abdel Meguid, representing CEDARE, raised the issue of Regional Knowledge-Sharing in Social Vulnerability, presenting a Regional Case Study on "Social, Ecological and Agricultural Resilience in the Face of Climate Change (SEARCH)." He explained that SEARCH Objective is to increase the resilience of the local communities and the ecosystem by developing resilience strategies and implementing demonstration actions. Search works in five countries: Egypt, Jordan, Palestine, Lebanon, Morocco. Dr. Abdel Meguid then presented the SEARCH Resilience Framework and the linking strategies and plans to this Framework. Another strategic initiative led by CEDARE and is a dynamic tool and important to the region is the R-KNOW network, aiming at strengthening regional linkages, networking and mutual exchange of knowledge and capacity building on systemic approaches among relevant stakeholders. The R-KNOW thematic areas are: Water Governance, Climate Change, Water, Energy, Food and Environment Nexus, and Innovative & Sustainable Technologies. The R-KNOW considers a number of cross-cutting issues including: Ecosystems rehabilitation, Gender mainstreaming, Capacity development, Transboundary issues and Water security.



Dr. Clemens Breisinger, representing IFPRI Egypt, gave a presentation entitled "Sustainable economic growth is key for addressing social vulnerability in MENA."

He stressed the fact that sustainable economic growth is instrumental for building resilience as it creates incomes for the people and the state. Also smart macro- and sector policies will have to play a key role, especially for incentivizing growth in labor-



intensive sectors. Dr. Clemens added that solid data and actionable research can greatly help decision-makers to design and implement growth and social protection policies. Dr. Clemens called for paying more attention to manufacturing as a driver of job-creating structural

transformation. He indicated that the role of the state is to make sure that markets work rather than "picking winners" and that cluster-based development can be a promising way to develop manufacturing and agro-processing in MENA. Dr. Clemens also recommended to re-consider agricultural strategies and to allocate more resources to higher value crops like vegetables and fruits as



they are less land and more labor intensive. Finally, Dr. Clemens gave a hint about the Arab Spatial Knowledge Hub for MENA (<u>www.araspatial.org</u>) which includes detailed information about food and nutrition security in MENA.

Dr. Aden Aw-Hassan from ICARDA gave a presentation on "The Sources of Social Vulnerability of Agriculture in Dry Areas." He explained that poverty is concentrated in the rural areas where agriculture is the main source of livelihoods, and that agriculture is the primary consumer of natural resources, particularly water which is increasingly becoming scarce, besides being an important pillar in food security which is a critical factor in vulnerability. He added that agricultural communities are vulnerable to both internal threats (such as technology and agri- modernization and Degradation of natural resources) as well as external





threats (such as Drought, Climate change, Markets, Policy and Institutions). Regarding the way forward, Dr. Aw-Hassan mentioned that there is a long list of proven innovations in agriculture (technologies, institutions and policy) including modern varieties, agronomic management practices, water saving technologies, resource governance measures and policies, however, adoption of these innovations is slow. He called for empowering the role of rural women and for the application of valuation and regulation regimes on resource use (particularly water) with focus on the long-term sustainability and wider societal benefits. He concluded that ICARDA is working with countries on a Regional project on Food Security demonstrating achievable productivity enhancement (modern crop varieties + management package), a Natural resource management project (example Conservation agriculture), and on Water saving technologies (raised bed planting - 25% water saving and 20% yield increase).

Dr. Emad Adly, General Coordinator of RAED representing NGOs, gave his presentation on "Enhancing Knowledge & Stakeholder Engagement on Social Vulnerability." He indicated that social vulnerability reflects the degree to which societies or socio-economic groups are affected by stresses and hazards, whether brought about by external forces or



intrinsic factors – internal and external – that negatively impact the social cohesion. He emphasized that disaster and development Vulnerability is also about people, their perceptions and knowledge, and thus stakeholder engagement is to "meet the community where they are." Dr. Adly also raised the question of why stakeholder engagement is important for the SV, indicating that it assists in the framing of policies, strategies and studies, facilitates the identification of which stakeholders should participate and how, and makes use of local knowledge of ecosystems. He then mentioned the key principles of stakeholder engagement to be: Information disclosure, Communication, Consultation and participation, Involvement, Cooperation and Partnerships. The presentation also dealt with how we can engage and categorize stakeholders, how to develop plan for engagement, and who are the appropriate stakeholders to engage. Special focus was given to the role of civil society as advocate of SV, service provider of societal needs, expert in knowledge transfer, capacity builder in providing education and training, representative of the marginalized categories, citizenship champion and solidarity supporter promoting fundamental and universal values. Dr. Adly concluded his presentation with a case study from RAED experience to address Social Vulnerability in Bangar El-Sokkar Community. He recommended the mapping of agricultural drought in Egypt through satellite images and maps of land degradation on the same scale with the preparation of a

study to guide "SPEI" Standard. He also recommended establishing a website and a mail address for communication within the community and to organize field studies to local residents to get to know their problems and opinions to promote sustainable development.

The floor was then open for **discussions and comments**. The following was highlighted:

- 1. The rural community incentives to adjust farming decision-making.
- 2. The importance of assuring stakeholders' engagement by making commitments at top political level with local civil society.
- 3. Indicators should be selected with caution and should be on the national level.
- 4. How can we measure the impacts of knowledge on the regional level.

<u>Day 2</u>

Panel Session (3)

The Session dealt with **"National Knowledge-Sharing in Social Vulnerability,"** and was moderated by Prof. Khaled Abu-Zeid, Senior Regional Water Resources Program Manager -CEDARE. The session **aimed at** briefly describing examples of national experiences in Social Vulnerability, focusing on the relevant strengths and weaknesses in current methodologies for measurement and in developing indicators.

The session included the following speakers:

- 1. Dr. Badia Chulli, Water Research and Technologies Centre Tunisia & Morocco Case Study
- 2. Eng. Bassem Katlan, Head of GIS and Remote Sensing, ACSAD Syria Case Study
- 3. Eng. Youssef Antoun, Representative from Litani River Authority, Lebanon Case Study
- 4. Dr. Tala Qtaishat, Professor in University of Jordan, Jordan Case Study
- 5. Dr. Wadid Erian, LAS-AGIR / AWC EGYPT Case Study.

Presentations

Five case studies from **Tunisia**, **Syria**, **Lebanon**, **Jordan and Egypt** were presented. Each case study highlighted specific issues:

 Tunisia Case Study was presented by Dr. Badia Chulli who highlighted Water Vulnerability in North-Western Sahara Aquifer System between Algeria, Tunisia and Lybia. Dr. Badia indicated that Six demonstration pilots, featuring four major problems facing the Saharan agriculture, were selected



in close collaboration with institutions in charge of water management in the three countries concerned. These problems include mainly: water deficit; water salinization; inefficiency of irrigation; and soil degradation. She added that the technical innovations adopted at the level of the six pilots to address these issues concern four major themes: Theme 1: Solar energy resource; Theme 2: Brackish Water Valorization through demineralization; Theme 3: Rehabilitation of lands degraded due to water stagnation; and Theme 4: Irrigation Efficiency and Agricultural Intensification. Dr. Badia concluded that the "demonstration pilots" component had mainly an agro-environmental orientation; however, it is worth mentioning that the adoption of an innovative social approach, realized in consultation with multi-actors, has greatly contributed to the attainment of the component's objectives. Farmers, as primary policy-makers, were highly involved in the implementation of activities within an exemplary synergy with partner research institutions. She concluded that the "demonstration pilots" component paved the way for better livelihoods and stabilization of the region's populations and a better conservation of the basin's resources.

2. Syria Case Study was presented by Eng. Bassem Katlan (ACSAD) who highlighted

"Drought Impacts on Social Vulnerability and the development of Drought indices." He explained the relation between Vegetation Health Index (VHI), Vegetation Condition Index (VCI) and Temperature Condition Index (TCI) to calculate the Drought Index. He also focused on the



major impacts of Drought in Syria on agricultural production, rural livelihoods, migration, and ecosystem decline. Eng. Katlan concluded his presentation by giving examples of SV indicators at both the national level (land use, water availability) and local level (population nature, level of services, education, illiteracy, dropouts, infrastructure level, housing construction material, economic status, unemployment, business sectors, and nature of the business).

3. Lebanon Case Study was presented by Eng. Youssef Antoun who focused on the "Lebanese Experience in Assessing Social Vulnerability." Eng. Antoun stressed the importance of having a broad understanding of community vulnerability in Lebanon which should be based on four dimensions: Demographic pressure, poverty and deprivation, access to basic services and social stability. He emphasized that, unfortunately, there is no comprehensive evaluation on the National Level and that the results of the majority of studies are not representative of conditions across all areas in

Lebanon. He also indicated that most evaluations are greatly linked to the Syrian crisis and refugees' community, and that there are multiple approaches and different indicators by different international Humanitarian bodies and donors that rely on their own field studies and their own indicators, methodologies and policies in measuring social vulnerability, a fact that makes the solutions in some cases irrelevant and the donations not properly allocated. Eng. Antoun concluded his presentation by shedding the light on the Litani River Authority and its Projects and Irrigation schemes as case



study, with special focus on the experience carried out by the Rural Development Department in contact with the users-farmers of delivered water of South Bekaa Irrigation Scheme.



 Jordan Case Study was presented by Dr. Tala Qtaishat who highlighted the issue of "Building Community Resilience and Strategies to Alleviate Poverty." She indicated that many attempts and strategic orientations have been designed and implemented to

increase economic opportunities and extend the financial aid to people in need such as : Social Productivity Program (SPP), Social and Economic Transformation program (SETP), Enhanced Productivity Program (EPP), Jordan Poverty Alleviation Program (JPAP), Poverty Alleviation for a Stronger Jordan. She added that these initiatives serve directly or indirectly to suggest a number of policies in



order to reduce poverty. Therefore the Government has put forward the Poverty

Reduction Strategy (PRS) to address the economic crisis and to ensure sustainable and improved living standards for the poor and below middle class people of Jordan. The strategy was built on the interaction of four thematic areas: economic development; social protection; human capital development, and governance. Dr. Tala then stated that the main goal of PRS 2013-2020 is to reduce poverty, vulnerability and inequality in the current socio-economic environment of Jordan through the adoption of a holistic and results-oriented approach, which targets poor and below middle class households, and that the new PRS 2013-2020 is aligned with other national strategies (such as the National Employment Strategy, education strategy, transport strategy, tourism strategy) and also with the Millennium Development Goals. She concluded that this Strategy recognizes the importance of a comprehensive approach to poverty and the necessity that such a strategy be developed and implemented using consultation and evidencebased planning and that all sectors of Jordanian society – public bodies at national and local levels, employers and workers, communities and families – must play their role in ending poverty. She also believed that the Government of Jordan has to continue the focus on eliminating poverty as a priority and to mobilize the resources necessary to achieve this aim.

5. Egypt Case Study was presented by Prof. Wadid Erian who discussed Environmental
 Displacement, with special focus on Social Vulnerability, Climate Risk and Building
 Resilience in Sugar Beet and El-Hammam Zones on the right and left sides of El-Nasr

Canal respectively, Nubariya Province. Dr. Wadid indicated that the most important problems in the study area are represented in the decrease of the total rainfall amount by almost 14%, the increase in temperature by 1.5°C in the last 30 years which is expected to increase to 2 to 2.5 °C by the year 2040, consequently causing an increase in water requirements by 10 -15% or more especially during summer. Additionally, the current



irrigation water shortage has reduced the land productivity in summer time, and has limited the existing irrigation interval system with 3 weeks interval of irrigation. He then spoke about the Social Indicators which include: **First:** Official statistics about the residents; **Second:** Social Institutions including Health Services; Educational Institutions; Nurseries; Social units; Social clubs; Agricultural Cooperatives and Village Bank; Veterinary units; Community Development Associations; Police & Fire Units; Post Office, Telegraph and Telecommunication Unit; Corn mills and crushers; Bakeries; Food Consumer Complexes and Commercial markets; **Third:** Infrastructure including Electricity and Energy; Roads & Transportation; Drinking Water; and Irrigation Services and Public Spending for Agriculture. As for the most important problems in the area, they are represented in the shortage of irrigation water and the irregular irrigation intervals especially in summer; the lack of access to water at the ends of the irrigation branches of the canals; the irregular cleansing and maintenance operations for some channels; the accumulation of agricultural and household waste near residential areas. Dr. Wadid emphasized that a lot of Community Population Changes took place in view of the existing Climate Risks in the study area which entails certain proposed future activities regarding Building Community Resilience. This includes but is not restricted to: (1) Enhancing Decision-Makers (National/Local) and Community Information on Climate Risk; (2) Enhancing Community Awareness and Advocacy; (3) Strengthening Community Resilience by empowering women and raising their awareness and supporting services directed towards the health of women and children.

Issues Raised related to the five presentations

- 1. The lack of right infrastructure for services and imperfect planning.
- 2. There is a need for new approaches for public awareness and capacity building.
- 3. Actions taken for local societies and lessons learned.
- 4. Building resilience.
- 5. Achieving SDG Goals with the existing rural communities.
- 6. Drivers of Social Vulnerability.
- 7. Another aspect of social vulnerability is mono-natural resources in some countries.
- 8. Egypt 2030 Sustainable Development Strategy has no mention of disaster risk reduction.

Working Groups

To facilitate report writing of the two Working Groups on **"Building National and Regional Social Vulnerability Measurable Indicators,"** Guidelines have been presented by **Prof. Dr. Gamal Siam.** The presentation first included the Drivers of SV, mainly Food & Water insecurity, Poverty, Climate Change and Natural Disasters. Dr. Siam then highlighted four sets of indicators for measuring SV. These are: **(1) Social indicators** (demographic pressures, public services, group grievance, refugees and IDPs, human flight and brain drain); **(2)** Economic Indicators (uneven economic development, poverty and economic decline); **(3)** Natural Resources; and **(4)** Political and Military Indicators (State legitimacy, human rights and rule of law, security apparatus, and external intervention). In an answer to the question of how to quantify social vulnerability to CC, Dr. Siam explained how to give scores to the Total Vulnerability Index range on a scale of 0 to 100, and how to follow the steps of quantifying the vulnerability. Finally Dr. Siam concluded his presentation by explaining the inverse relationship between Elasticity of SV and the adaptation to policy measures.

Working Group Questions

Participants were divided into two Working Groups. Three questions were posed by **Dr. Wadid Erian,** the Session Moderator, to be answered by each of the Working Groups from their own viewpoint. Following are the questions and the agreed upon answers from the majority of participants:

Question 1. Define Social Vulnerability

It is the ability of society to anticipate, cope with, resist and recover from the impact of natural, economical, environmental, or political hazards.

In other words it is expressed as the characteristics of a group of people in a certain area and their capacities to cope with or anticipate hazards, relating vulnerability to tangible and intangible impacts caused by those hazards based on:

- Poverty
- Cultural context
- Tradition
- Access to services
- Rights, Roles & Responsibilities
- Skill and capacity

Question 2. What are the activities/policies that we should ask LAS and Governments to prioritize and engage in their strategies

A) Local (civil society):

- ✓ Adopting awareness campaigns and capacity building programs
- ✓ Promoting good practices in order to enhance behavior
- ✓ Enhancing the traditional knowledge
- ✓ Increasing leadership and involvement of civil society (championship)

B) National

- ✓ Public awareness
- ✓ Identifying gaps of the existing plans and prioritizing the most important activities in order to improve the new strategies
- ✓ Modifying, revisiting and adjusting frameworks and integrating the main indicators of different strategies to be in line with the current SDGs
- ✓ Ensuring availability of data at statistics institutions and support them to produce indicators
- ✓ Review of socio-economic indicators
- ✓ Encourage applied research where natural and social sciences are linked
- ✓ Enhancing dialogue between science communities and decision-makers
- ✓ Improving governance (institutional and legislation)
- ✓ Improving education
- ✓ All strategies should be gender-sensitive
- ✓ Mainstreaming Social Vulnerability in current Arab strategies.

C) Regional (LAS)

- ✓ Addressing the needs of different sub-regions
- ✓ Addressing social vulnerability as a across-cutting issue in Arab strategies
- ✓ Applying M&E mechanisms to follow up on the progress and application of the agreed policies
- ✓ LAS to adopt capacity building programs in SV
- ✓ Sustainable development as a main topic
- ✓ Cooperation with the regional and international organizations in applying capacity building programs regarding SV
- ✓ Encouraging studies and measurable indicators
- ✓ LAS to adopt SV as a priority issue in different conventions
- ✓ Exchange of good practices among regions
- ✓ Enhance accessibility and sharing of data and information disseminations
- ✓ Help develop an Arab Regional Social Vulnerability Strategy
- ✓ Standardization of SV Indicators, their definitions, ranges, etc.
- ✓ Linkage between the SV policies and SDG goals
- ✓ Facilitate the access for funding
- ✓ Networking [Creating a mechanism] to evaluate the efforts done by individual countries at the national level.

Drivers		National	Local
1.	Food security index (affordability, availability, safety and quality)	Increase productivity of agriculture yields by 15%	No. of farmers using new technologies with regards to location/s to increase productivity
2.	Poverty line index	GDP/capita would reach to the level that satisfiesa poverty reduction	Percent of population access to public services by age, location and sex
3.	Water security index	Water availability per capita	Access to sewage and clean water
4.	Conflict	Percentage of unemployment per capita, per location	Percentage of access to transportation infrastructure per capita, per location
5.	Climate Change	No. of early warning systems stations distributed in hot spots	No. of social media campaigns addressing SV

Question 3. What are the Social Vulnerability Indicators at both Local and National levels?

Other national and local indicators were suggested by the Working Groups :

- Population Density
- Income disparities
- Gender inequality (women representatives in government and parliaments)
- Urban absorption capacity (population movement)
- Political Stability
- Social Indicators (malnutrition, unemployment, etc.)

Key messages and Recommendations deduced from the two Working Groups

- 1. Activities/policies should be prioritized as to include the concept of Social Vulnerability on three scales: Local, National and Regional.
- 2. Mainstreaming Social Vulnerability as a cross-cutting issue in Arab strategies.
- 3. LAS to help develop an Arab Regional Social Vulnerability Strategy.
- 4. Applying M&E mechanisms to follow up on the progress and application of the agreed policies. Governments to establish an Institutional framework to monitor and evaluate SV indicators.
- 5. Cooperation with the regional and international organizations in applying capacity building programs regarding SV.
- 6. LAS to adopt SV as a priority issue in different conventions.

- 7. Exchange of good practices and knowledge among region's networks, and networking to evaluate the efforts done by individual countries.
- 8. Linkage between the SV policies and SDG goals.
- 9. Importance of building Early Warning Systems.
- 10. Public Awareness and capacity building for decision-makers and parliamentarians.
- 11. All strategies should use gender-sensitive language.

<u>Day (3)</u>

The last day of the Workshop started with a brief talk by **Eng. Mona El-Agizi representing EEAA/GEF**, followed by the remarks of **Mr. Ayman Ramadan representing EU/Egypt**. The session was moderated by **Mr. Oscar Ekdahl from WFP** who invited both speakers to share their experience and vision about the concept of Social Vulnerability and how they can support its advancement from the points of view of their respective organizations.

Remarks of Eng. Mona El-Agizi, Program Manager, representative of EEAA/GEF

In her remarks, Eng. Mona El-Agizi, indicated that EEAA (Egyptian Environmental Affairs Agency) is working with international and national partners towards implementing Initiatives that support Sustainable Development which, in turn, is supporting the socio-economic aspect. She also indicated that EEAA is the focal point for GEF (Global Environment Facility) in Egypt, and that GEF is a catalyst for action, providing support for action in the field of environment. GEF has main thematic areas to which their funds are directed, such as biodiversity and climate change. They also support chemicals and waste, forest and land degradation initiatives, besides fisheries as a main cross-cutting theme that is water-related. Moreover, the gender perspective is well taken into consideration by GEF. Eng. Mona added that GEF has a small grant program funding a small-scale initiative that can help create new jobs and raise the capacity of people in communities on a small-scale but with large impacts. From her experience in the North Delta region, Eng. Mona pointed out that the farmers are trying to survive by finding new sources of water, despite the harsh conditions of water shortage and the deteriorating water quality, a fact that renders the new generations uninterested to work in their parents' fields, thus lose the talent of farming. So the key message here, as stressed by Eng. Mona, is to make sure that we preserve what we have.

<u>Remarks of Mr. Ayman Ramadan, Program Manager for Water Utilities,</u> <u>representative of EU/Egypt</u>

Mr. Ayman highlighted the latest EU (European Union) developments in Egypt and the Arab region, focusing on the so-called "Single Support Framework" which is a country strategy document to Egypt covering the period 2014 – 2017 including several pillars. First and foremost is the pillar addressing poverty alleviation, local economic development and social protection, where SV-related interventions are of great relevance. Second is the focus on improving the quality of life, and the third pillar is the climate activities addressing SV. Besides, Mr. Ayman emphasized that the EU/Egypt partnership priorities specially target social protection and social safety nets, where all these priorities are included in the "European Neighborhood Policy Review", with various local and regional programs that address water, environment, agriculture and social sector, among other activities. Mr. Ayman then drew attention to the so-called "European Investment Plan" with EU investment partners who will target infrastructure and capacity building programs. The latter programs are more and more interested in addressing the root causes of illegal migrations with the aim of supporting the stability of the region. Mr. Ayman concluded his remarks by giving example of a program to be signed soon with the Ministry of Water Resources, namely the National Drainage Program, for improving irrigation and agriculture, as well as the Delta region program with an integrated approach working on the infrastructure which is labor-intensive, together with the local communities with the aim of improving the overall local economic condition.

In an answer to a question on the projects or interventions related to Social Vulnerability that have been implemented by EU and GEF for the water sector, Mr. Ayman indicated that EU has executed a National Drainage Program in the Agriculture Sector, which is a long-standing program that started about 25 years ago. The program aimed at introducing subsurface drainage to the farmers who have less than 20 acres in order to increase their net income, which can be raised according to WB statistics by about 20-25%. He added that if this is combined with specific measures with some support to small-scale farmers, it will have excellent impact, with better access to the markets, hence increasing their marginal profits. Additionally, Eng. Mona El-Agizy indicated that on the regional scale, GEF has worked on the "Biomass Project" in collaboration with the Ministry of Environment, in an attempt to outreach the farmers and to provide Bio Energy for communities that lack and Energy source. There was also the recycling program which ensures more effective recycling in safe conditions.

Presentation of AWC/WFP Report on Social Vulnerability in the Arab Region

The report on Social Vulnerability in the Arab region was presented by **Prof. Dr. Gamal Siam**, Prof. of Agricultural Economics, Cairo University. The session was moderated by **Mr. Oscar Ekdahl**, Regional Programme Office, Bureau for the Middle East, North Africa, Central Asia and Eastern Europe, WFP. The following was highlighted:

- 1. Objective and scope of the study.
- 2. The concept of social vulnerability, indicators and factors affecting it.
- 3. How to quantify SVI? And link to adaptation measures.
- 4. Social vulnerability in the Arab Region: vulnerabilities to poverty, climate change, water scarcity, food insecurity and conflict.
- 5. Social vulnerability in selected countries.
- 6. Main findings and recommendations.

Panel Session (4)

Presentation of the World Bank

A presentation was given by the World Bank Representative, **Dr. Gustavo Demarco**, entitled **"REDUCING VULNERABILITY THROUGH SAFETY NETS IN MENA"** highlighting the challenges in the MENA region, where the region is moving today, why should we be concerned, impact of shocks on poor households, managing the short-term shocks and mitigation principles, possible interventions (case study of Egypt), integrated approach to build social protection systems that can:

- 1. Address risks
- 2. Respond to shocks scale up, deliver resources when households need it most
- 3. Build Resilience of households
- 4. Reduce Vulnerability of households
- 5. Be Flexible and scalable
- 6. Work at the intersection of multiple sectors.

Closing Session

Wrap-Up and Recommendations

The session was chaired by **H.E. Dr. Mahmoud Abu-Zeid**, AWC President, who summarized the **DEFINITION OF SOCIAL VULNERABILITY** as agreed upon by the participants of the Workshop as: "The ability of society to anticipate, cope with, resist and recover from impacts of national, economic, environmental and/or political shocks and hazards."

H.E. Dr. Abu-Zeid then highlighted the following KEY MESSAGES AND RECOMMENDATIONS as concluded from the 3-day Workshop deliberations:

- 1. The importance of mainstreaming Social Vulnerability as a cross-cutting issue in Arab strategies.
- 2. Considering SDGs call for a more integrated approach to manage inter-connected risks between social, economic and environmental pillars, meanwhile improving governance to help in optimizing solutions to operationalize SDG goals.
- 3. Including Disaster Risk Reduction in Sustainable Development Strategies.
- 4. Importance of stakeholder engagement and building partnerships to form, inform and prioritize policies, strategies and studies and to avoid conflicts.
- 5. Considering new approaches for public awareness and capacity building and adaptation of communities on Social Vulnerability at the local, national and regional levels.
- 6. Need to incorporate gender perspective into strategies and policies, and in operational mechanisms for implementing the SDGs (Gender Mainstreaming).
- 7. Considering Social Vulnerability in rural and urban environments, taking into account demographic change (By 2050 twice the No. of people will live in urban areas).
- 8. Importance of anticipatory actions based on mechanisms for forecast, early warning and preparedness to support the decision-making process.
- 9. Governments to establish an Institutional framework to monitor and evaluate SV indicators linked to the SDGs.
- 10. Stressing the role of regional organizations to:

- Develop an Arab Regional Social Vulnerability Strategy and to adopt SV as a priority issue in different conventions.
- Facilitate and enhance accessibility and sharing of data.
- Strengthen capacity of countries to address Social Vulnerability at the local, national and regional levels.
- Establish an evaluation mechanism to assess efforts done by individual countries to support enhancement and exchange of good practices and knowledge among the region's networks.

In Conclusion:

H.E. Dr. Abu-Zeid, AWC President, re-thanked the sponsors and organizers for their efforts to make this workshop a success, and emphasized that the 3-day workshop helped pave the way for moving from a better understanding of the concept of Social Vulnerability to quantifying the phenomenon by introducing measurable indicators. The workshop also lay the basis for formulating appropriate sustainable strategies that can cope with disaster risk reduction in the Arab region.

ANNEXES

Annex 1: Workshop Agenda

Annex 2: List of Participants

Annex 3: Photo Gallery