Regional Research for Development Landscape in the Middle East and North Africa Region

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Thriving Solutions

Reimagining our food systems to sustain our future

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About Thriving Solutions LLC

Thriving Solutions is a social enterprise established by two Arab women dedicated to decarbonizing the economy, safeguarding biodiversity, advancing food-nutrition-water security, as well as supporting SDG 2030 and ESG priorities, with a focus on Arab region. Our services help companies and municipalities implement nature-based solutions and adopt innovations that eliminate waste and pollution, regenerate ecosystems, transition to circular food systems, and sequester carbon.

Vision: circular, regenerative food systems.
Mission: To reimagine local, regional and global agri-food systems, to sustain our future.

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Contents

Acronyms

AI	Artificial Intelligence
AUB	American University of Beirut
AUC	American University in Cairo
CRFS	Climate Resilient Food Systems
CCFS	Climate Change and Food Security
DIG	Democratic and Inclusive Governance
ED	Economic Development
ERF	Economic Research Forum
Edu	Education
ES	Education and Science
FAO	Food and Agricultural Organization
FPF	Forward Planning Fund
GH	Global Health
Gov	Governance
IDRC	International Development Research Centre
IMF	International Monetary Fund
INRA	Moroccan National Institute for Agricultural Research
IPCC	Intergovernmental Panel on Climate Change
KAUST	King Abdullah University of Science and Technology
MENA	Middle East and North Africa
NGOs	Non-Governmental Organizations
PH	Public Health
R4D	Research for Development
SIE	Sustainable Inclusive Economics
SWOT	Strengths, Weaknesses, Opportunities, and Threats
UAE	United Arab Emirates
UNDP	United Nations Development Programme
UNESCWA	United Nations Economic and Social Commission for West Asia

Executive Summary

The Middle East and North Africa (MENA) region is home to a diverse institutional landscape for research for development (R4D), comprising of a range of actors, including public and private sector institutions, international organizations, regional organizations and networks, and local organizations. The International Development Research Centre (IDRC) concluded a programming cycle and transitioned to a new Strategy 2030. IDRC commissioned studies on the current institutional R4D landscape in each of its five regions. The five studies will be part of the three-year Strategy 2030 check-in. They will inform internal learning and IDRC management of any changing contexts for R4D over the last five years. This report presents the findings of the study for the MENA region, shedding light on the institutional landscape; the strengths, weaknesses, opportunities, and threats (SWOT) that characterize the landscape; emerging trends, and potential areas for improvement.

The study included online scanning of key national, regional and international organizations working in the field of research and R4D in the MENA region, coupled with in-depth interviews of 20 key informants. While the study utilized a mixed-research approach, it predominantly focused on qualitative analysis, with the primary data collected forming the foundation of the report. Given the limited sample size, care was taken in the selection of individuals with broad and extensive experience in R4D in the MENA region, however, validation of key findings may be necessary.

Institutional Landscape:

The MENA region's institutional landscape for R4D is characterized by its diversity and complexity. Academic and non-academic institutions play a significant role, with universities emerging as the strongest R4D institutions in the region. Think tanks are scarce and not common, as are indigenous private sector consulting entities that support R4D and generate knowledge available for public use. International organizations are the largest contributors to R4D support in the region, followed by regional organizations and networks. It is important to note that the mapping exercise excluded traditional governmental institutions such as Ministries, Central Banks, and Social Welfare institutions, which typically commission R4D for policy purposes or are recipients of evidence generated by R4D initiatives.

Strengths, Weaknesses, Opportunities and Threats:

Despite facing challenges such as political instability, economic hardships, and the COVID-19 pandemic, universities in Lebanon, Palestine, Egypt, and Jordan have demonstrated remarkable resilience by securing research funding and collaborating with the private sector. These can be identified as islands of excellence operating under very difficult circumstances. Well-funded private universities such as the American University of Beirut (AUB), American University in Cairo (AUC), King Abdullah University of Science and Technology (KAUST), and Mohammed VI Polytechnic University have been able to invest more in applied research and produce high-quality outcomes. Government organizations, non-governmental organizations (NGOs) and the few think tanks have also remained functional, adapting their research topics to address current regional needs. Another strength is the region’s rising number

of highly knowledgeable researchers across various fields, with strong international and regional connections. Notably, there has been significant growth in research capacity related to climate change, with a high volume of peer-reviewed papers published and an increasing number of regional authors contributing to Intergovernmental Panel on Climate Change (IPCC) reports. Moreover, the younger generation of researchers in the region embraces technology and uses it to foster collaboration and overcome barriers with researchers from different parts of the world.

While universities demonstrate resilience and research capacity, there are significant challenges in evidence-based policy, funding, enabling environments, interdisciplinary collaboration, and knowledge gaps. The lack of structural forums or channels of communication and collaboration between policymakers and researchers is a significant weakness. Limited institutionalized policy based on evidence inhibits research progress and restricts its potential positive impact. The gap between research institutions and end-users hampers the effectiveness of R4D, as policymakers often show little interest or readiness to engage with research. Moreover, policymakers often lack the expertise to properly evaluate research studies, resulting in decisions based on incomplete or inaccurate information. Insufficient funding poses a significant challenge for R4D efforts, with limited national funding and fragmented donor funding resulting in short-term thinking and weak institutions. Collaboration and multidisciplinary approaches are not widespread, and ethical and research production standards, especially in public universities, are generally weak. Additionally, government control through censorship, propaganda, and suppression of dissenting voices hinders the free flow of information and ideas.

The MENA region presents several opportunities for leveraging technology, human capacity, donor funding, collaboration, and the youth bulge. The youth bulge in the region offers the chance to invest in R4D areas such as entrepreneurship, innovation, and skill-building. The growing population of digitally savvy individuals provides another opportunity to leverage digital technologies for R4D, enabling researchers to access and share knowledge more effectively. Donor funding is available for research in sectors such as education, health, and agriculture, allowing institutions to capitalize on external resources. Regional collaboration among countries and institutions can enhance the effectiveness and impact of R4D initiatives, fostering knowledge sharing and pooling resources to address common challenges. Additionally, emerging technologies such as artificial intelligence, blockchain, and biotechnology provide avenues for cutting-edge research and innovation, offering the MENA region a chance to position itself as a leader in these areas.

Major threats that impact the sustained growth of the region and the R4D efforts include geopolitical instability, economic hardships, brain drain, external influence, and climate change. Geopolitical instability, conflicts, and regional tensions hamper the progress of research initiatives, leading to brain drain, limited collaborations, and disrupted research activities. Economic hardships and limited financial resources hinder investment in R4D, with governments often prioritizing short-term goals over long-term research investments. External influences from foreign actors can shape the R4D agenda, diverting attention and resources from addressing region-specific challenges. The influence of research agendas by Western perspectives and funding priorities can limit the region's ability to address its unique challenges effectively. Climate change also poses a threat to the region's stability.

Notwithstanding, respondents highlighted that the strengths, weaknesses, opportunities, and threats in the MENA region are not uniform due to its diversity. Many weaknesses identified in the MENA region do not apply to the Gulf countries as these countries were identified as financially capable nations that have increased their investments in universities, research, and innovation. Countries in the Gulf have invested in state-of-the-art infrastructure, have successfully funded research and attracted scientists and scholars, although this has resulted in brain drain from other countries in the region, it has benefited the Gulf with acquiring young enthusiastic researchers.

Mitigation of Weaknesses and Threats:

Mitigating weaknesses and threats in R4D requires a multifaceted approach, including building capacity and financial resilience of knowledge institutions, fostering research networks, promoting monitoring and evaluation, localization, and non-gender biased funding. Encouraging digitally enhanced capacity building and creating an enabling environment for youth in research are essential. Utilizing technology and digital platforms can facilitate collaboration and knowledge sharing. IDRC's long-standing engagement in the region and understanding of the local context make it well positioned to lead these efforts. Investing in training programs and supporting existing researchers can strengthen evidence-based policymaking. Engaging smaller organizations and increasing financial investments can promote sustainable R4D initiatives.

Efforts to bridge the gap between research and policymaking, enhance funding mechanisms, and foster collaboration and data sharing among institutions can lead to cross-pollination of ideas, and contribute to the development and implementation of evidence-based policies and solutions to address regional challenges effectively.

Trends:

Recent trends and shifts in the MENA region's research priorities have been influenced by three key factors: the Arab Spring, the Covid-19 pandemic, and the economic deterioration of several countries. The Arab Spring resulted in geopolitical instability and conflicts, leading to economic hardships and a redirection of funds away from research. The affected countries experienced a brain drain as talented individuals migrated to the Gulf countries or other regions. The Covid-19 pandemic further constrained research funding, but also increased focus on the humanitarian development nexus and the importance of research in the public health domain. Universities played a significant role in research, with a slight shift towards more applied research. Governments and institutions prioritized the use of technology and digital solutions in the health sciences sector. Economic strains and political challenges, exacerbated by the pandemic, have led to rising economic crises, high youth unemployment rates, demographic shifts, and increased migration. These challenges have stifled research and led to difficulties in accessing funds and self-censorship by researchers. However, the region has seen progress in innovation and knowledge production, with significant investments in higher education systems and collaboration between disciplines and sectors. There is an observed rise in policy makers appreciating the value of data and evidence, although increased government investment in research remains limited.

Introduction

IDRC is a Canadian organization supporting Canada's foreign affairs and development efforts by funding and championing research and innovation in developing regions to drive global change. Established by an Act of Canada's Parliament in 1970, IDRC is governed by a board of up to 14 governors. It has its head office in Ottawa and five regional offices located in Uruguay, Kenya, Senegal, Jordan, and India.

IDRC invests in high-quality R4D, shares knowledge with researchers and policymakers, and mobilizes global alliances to build a sustainable and inclusive world. R4D is an approach that seeks to generate new knowledge and innovations that contribute to the economic, social, and environmental development of developing regions. It is a collaborative process that involves researchers, policymakers, and communities to ensure that research responds to local needs and priorities.

In 2020, IDRC concluded a programming cycle, and in 2021 transitioned to a new Strategy 2030, which highlights the Centre's plans to evolve and adapt to changing contexts over the ten-year period. To inform implementation and strategic directions, as well as support organizational learning, three-year strategy check-ins are planned for 2023, 2026 and 2029. Strategy check-ins will be carried out in each of the five regions covered by IDRC: East and Southern Africa, West and Central Africa, Middle East and North Africa, Latin America and the Caribbean, and Asia.

This report constitutes part of the 2023 Strategy check-in for the MENA region. It presents a rapid analysis to understand the regional institutional landscape for R4D, the different actors, the main strengths and weaknesses, existing opportunities and threats, as well as emerging trends in the last five years. The findings presented are derived mostly from primary data except for the tables and figures for which the source of data is indicated.

IDRC Strategy 2030

IDRC 2030 affirms IDRC's vision for a more sustainable and inclusive world, and commits to:

1. Investing in research and innovation in developing countries to tackle local and global challenges.
2. Sharing research knowledge to increase its impact and influence development agendas.
3. Mobilizing partnerships (including with the private sector) and funding to expand the reach and impact of R4D.

The Strategy reinforces that IDRC work is concentrated around five focus areas:

1. **Climate Resilient Food Systems**: so that people living in areas most affected by climate change have better resilience and healthier diets due to improved access to sustainable and inclusive food systems.

2. **Global Health**: improving health systems so that countries at risk can better protect vulnerable populations from epidemics and pandemics. This includes enhancing the sexual, reproductive, and maternal health of women, adolescent girls, refugees, and displaced populations.
3. **Education and Science**: to provide quality education to children and youth from vulnerable populations; and empower women to become leaders in science systems that generate knowledge and innovation to improve people's lives.
4. **Sustainable Inclusive Economics**: to benefit people in developing countries. Providing lasting and high-quality economic opportunities for women and youth.
5. **Democratic and Inclusive Governance**: to allow vulnerable communities to benefit from inclusive, accountable, and transparent governance. By allowing them to exercise their democratic rights and freedoms, they are better able to shape policies and practices that affect their lives.

Purpose of the Study

The purpose of this study was to map the institutional landscape for R4D in the MENA region. Identifying the different actors present, the main strengths and weaknesses, existing opportunities and threats, as well as the emerging trends in the last five years. Specifically, the analysis sought to address the following key research questions that were deemed important to shed light on the institutional landscape for R4D in the MENA region:

- What is the current institutional landscape for R4D in IDRC regions?
- What are the relative strengths and weaknesses of actors or contributors towards R4D relevant for Strategy 2030 (i.e., universities; think tanks; government; major NGOs that conduct R4D)?
- What salient recent trends or shifts have occurred in the composition and the role of actors in the R4D landscape over the last five years?

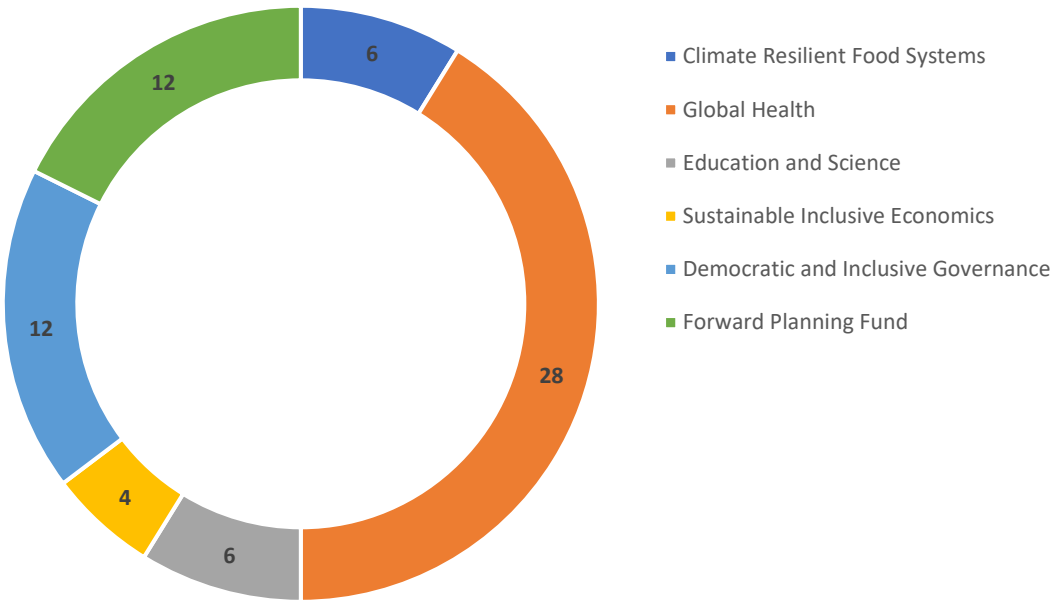
Methodology

This assessment utilizes a mixed-research approach heavily inclined towards qualitative analysis. The research included online scanning of key national, regional and international organizations working in the field of research and R4D in the MENA region. A comprehensive list of those organizations was developed for each of the five key focus areas and the file was shared with all members of the in-depth interview sample for review and feedback.

The qualitative study involved in-depth interviews with a select number of key informants. This was driven by the time and budget constraints of the study which only allowed for a restrained number of respondents to be selected. Accordingly, the selection was not randomized but narrowed to select individuals with extensive hands-on experience in the R4D field in the MENA region. These included all current IDRC personnel responsible for projects in the MENA, project leads in recipient organizations

of IDRC funding, as well as key experts in the field from key organizations that are working in the field such as the United Nations Economic and Social Commission for West Asia (UNESCWA) and the Food and Agricultural Organization (FAO) who can give a broader and diverse institutional perspective. In selection of the sample, care was given to ensure proper representation of focus areas and inclusion of experts with extensive field experience and in-depth knowledge of R4D landscape in MENA. Figure 1 depicts the distribution of IDRC active projects among the different focus areas. Introductory emails were sent by IDRC to each participant requesting an in-depth interview. The email introduced the lead investigator, the purpose of the study, and the three key research questions that are the focus of the interview discussion. In total, 25 people were approached for in-depth interviews, resulting in interviewing 20 key informants. Annex 1 presents a list of the individuals interviewed.

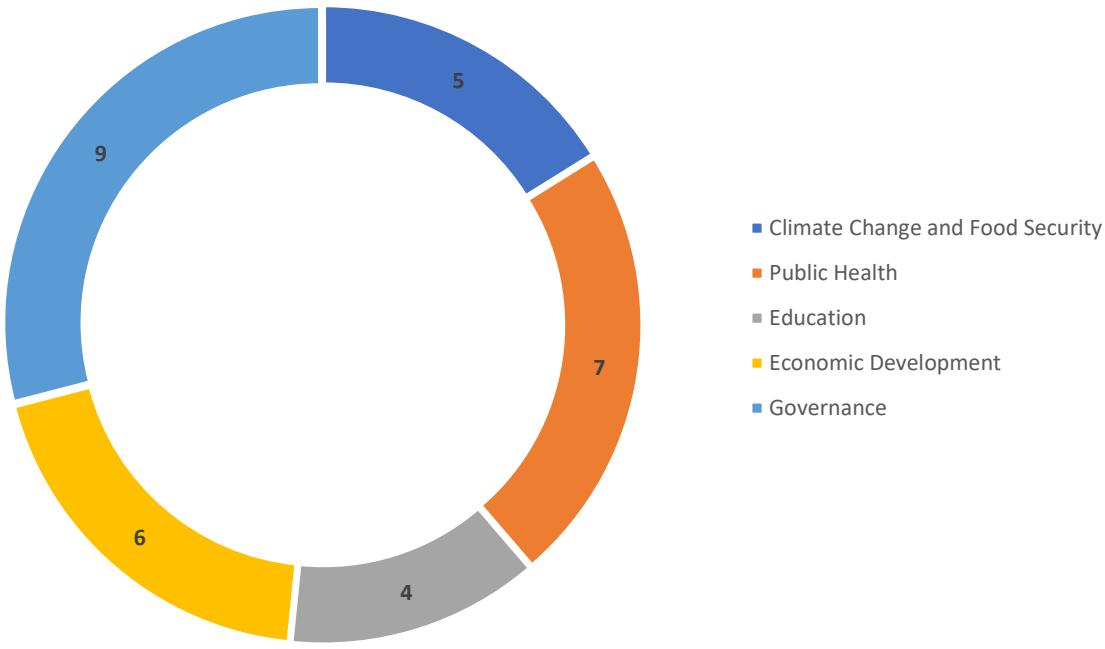
Figure 1: Distribution of Number of Projects per Focus Area



Source: MERO Regional Footprint Analysis (draft report), IDRC

Figure 2 exhibits subject area representation among the interviewees. The subject areas are Climate Change and Food Security (CCFS) Public Health (PH), Education (Edu), Economic Development (ED), Governance (Gov). Some key informants had in-depth experience and knowledge in more than one focus area and presented insights on several areas. Interviews ranged from 40 minutes to one hour and were guided by the Discussion Guide in Annex 2.

Figure 2: Representation of Subject Areas within Sample



Source: Thriving Solutions

Risks

Bryman (2015) cautions qualitative research is too subjective and difficult to replicate as it presents the perspective of the interviewees. For the purposes of this research, which covers R4D landscape, a rather technical and not very common field of study and work in the region, interviewees were selected because of their previous experience and exposure to R4D in the MENA and thus deemed their knowledge and insights are aligned with the objectives of the study.

Furthermore, Bryman (2015) stipulates that when *'interviews are conducted with a small number of individuals in a certain organization or locality, critics argue that it is impossible to know how the findings can be generalized'*. Although, care was taken in the nomination of individuals to be interviewed to represent all focus areas and to those that have broad and extensive experience in the MENA region, it must be noted that the limited number of the sample did not allow for a broad representation of all actors and countries. The region represents 19[1] countries (Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Mauritania, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen). Furthermore, actors in the R4D space include national, regional and international organizations including universities, think tanks, government, as

[1] This excludes non-Arabic speaking countries of the Arab League, mainly Somalia, Comoros and Djibouti.

well as networks and non-governmental organizations (NGOs). A sample of 20 key informants, may not meet the data adequacy criteria, which is an important aspect to consider when carrying qualitative analysis (Vasileiou *et al.m* 2018). A larger sample pool of key informants that includes representatives from all these actors and countries would have minimized this limitation, but the time and budgetary requirements for such a qualitative sample are beyond the scope of this study.

To overcome these risks, a lot of thought was put into the selection of the key informants to ensure that they were individuals of extensive experience in the region that can provide diverse input to allow for identifying the main components of the R4D landscape in the region and the key trends. Nonetheless, IDRC may wish to carry out further investigation in the future to validate key emerging findings from this study and solicit input from a broader sample regarding particular findings.

Findings

The findings below are derived from the document supplied by the IDRC team, rapid online search of institutions in the MENA region involved in research and/or policy, as well as insights gained from the in-depth interviews conducted with 20 key informants.

Current Institutional Landscape for R4D in MENA

Mapping the existing institutional landscape was conducted by reviewing the grantees of IDRC grants followed by online research of national, regional and international organizations working in each of the five focus areas in the MENA region. The preliminary list was then shared with all 20 respondents for their input. Insights from the key informant interviews shed light on some of the characteristics of the institutional landscape.

The institutional landscape of the MENA region is diverse and mixed with public and private sector institutions, international organizations, regional organizations and networks, as well as local organizations. Tables 1, 2, 3 & 4 present the institutions in the different categories. The different regions and nations within the region cannot be easily compared in terms of economy, government, environment etc. North Africa is different than the Middle East in several aspects, and within the Middle East the Gulf region is quite distinct. Other than variations in culture, Anglophone versus Francophone language dependence, and climatic conditions, there are a number of critical geopolitical and economic differences. While several countries, particularly in the Gulf region, are very affluent, many of the region's countries are facing economic instabilities. The economic instability in some countries has reached crippling proportions such as Lebanon. Moreover, several countries are stricken with unrest, conflicts and even wars (Yemen, Libya, Sudan, Iraq and Syria).

The current institutional landscape for R4D includes academic and non-academic institutions. The academic institutions are public and private universities and research centers while the non-academic institutions are mainly government funded research centers. In principle, government institutions such as the various ministries, are the consumers of evidence emerging from R4D for the purposes of policy making.

As exhibited in Table 1, a large number of international organizations are active in the region, ranging from United Nations organizations, to government development assistant agencies, to development banks, international agricultural research organizations, development NGOs, and philanthropic institutions. We notice that although there are organizations interested in all of IDRC's focus areas, interest is most focused on Climate Change and Food Security and Governance.

Similarly, there is a considerable number of regional organizations and networks, though these may be considered somewhat limited given the large size of the MENA region. A scan of the regional organization (Table 2) reveals that many are initiated and founded from within a region, which is a positive sign.

Traditional governmental institutions including different sector Ministries, Central Banks and Social Welfare institutions that would commission R4D to inform policy or be recipient of evidence generated by various R4D initiatives are not reflected in the National Organizations Table (Table 3) as these are present in most countries. What was included is specialized national research centers, and as evident in Table 3, most countries have national agricultural research centers tasked to carry out applied research. Some of these national centers have gained international recognition for their work such as the Moroccan National Institute for Agricultural Research (INRA). It is noticeable from Table 3, that there is an absence of specialized national institutions conducting R4D in the Sustainable Inclusive Economies domain albeit the dire economic situation of several countries (e.g. Lebanon, Egypt, and conflict stricken countries), and the growing unemployment particularly amongst youth.

Universities were grouped separately in Table 4, due to their large number. Some of the universities are private. However, specialized centers within universities are included in Table 3.

Notably, as can be seen in the distribution of organizations, and was supported by insights from the interviewees, the strongest R4D institutions that are carrying research and generating evidence in the MENA region are the universities, while think tanks are sparse and not common, and even less common are private sector consultancies that specialize in generating knowledge and supporting R4D. Historically the majority of the research carried out in the region has been academic in nature. Public universities play an important role in research, but the quantity and quality of research is heavily dependent on their internal capacity, infrastructure and funding which in many cases is limited. On the other hand, better funded private universities or universities backed by large endowments, such as AUB, AUC, KAUST, Mohammed VI Polytechnic University, can afford to invest more in applied research and are generating high-quality research within the different sectors.

Table 1: International Organizations:

#	Organization	CCFS	PH	Edu	ED	Gov
1	United Nations Development Programme Arab States Regional Office (UNDP)					
2	International Development Research Center (IDRC)					
3	United Nations Economic and Social Commission for West Asia UNESCWA					
4	United States Agency for International Development (USAID)					
5	European Commission					
6	Islamic Development Bank (IsDB)					
7	Swedish International Development agency (SIDA)					
8	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)					
9	World Bank Group					
10	Carnegie Endowment for International Peace					
11	World Health Organization Eastern Mediterranean Regional Office (WHO)					
12	United Nations Children's Fund Middle East and North Africa Regional Office (UNICEF)					
13	Food and Agriculture Organization of the United Nations (FAO)					
14	International Fund for Agricultural Development (IFAD)					
15	World Food Programme (WFP)					
16	United Nations Environment Programme (UNEP)					
17	CGIAR					
18	International Center for Agricultural Research in the Dry Areas (ICARDA)					
19	International Water Management Institute (IWMI)					
20	International Center for Agricultural Research in the Tropics (CIAT)					
21	International Institute for Environment and Development (IIED)					
22	International Food Policy Research Institute (IFPRI)					
23	Center for Mediterranean Integration (CMI)					
24	Natural Resources Institute Finland (Luke)					
25	World Vegetable Center (AVRDC)					
26	International Center for Biosaline Agriculture (ICBA)					
27	Global Green Growth Institute (GGGI)					
28	United Nations Population Fund Arab States Regional Office (UNFPA ASRO)					
29	International Federation of Red Cross and Red Crescent Societies (IFRC) - MENA Regional Office					
30	Médecins Sans Frontières (MSF) - Operational Centre Amsterdam (OCA)					
31	Foundation for the Graduate institute of International and Development Studies					
32	International Education Association					
33	UNESCO Regional Office for Education in the Arab States					
34	International Finance Corporation (IFC)					

#	Organization	CCFS	PH	Edu	ED	Gov
35	International Labor Organization (ILO)					
36	International Trade Centre (ITC)					
37	United Nations Democracy Fund (UNDEF)					
38	International Foundation for Electoral Systems (IFES)					
39	National Democratic Institute (NDI)					
40	International Republican Institute (IRI)					
41	Freedom House					
42	The Carter Center					
43	Center for International Private Enterprise (CIPE)					
44	Open Society Foundations (OSF)					
45	Westminster Foundation for Democracy					
46	The SecDev Foundation					
47	Open Transformation Lab Inc.					

Table 2: Regional Organizations and Networks:

#	Organization	CCFS	PH	Edu	ED	Gov
1	Arab Organization for Agricultural Development (AOAD)					
2	The Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD)					
3	Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR)					
4	Association for Water and Environmental Resources Development in Middle East and North Africa (AWERD)					
5	Arab Network for Food Sovereignty (ANFS)					
6	Regional Centre for Renewable Energy and Energy Efficiency (RCREEE)					
7	Arab Authority for Agricultural Investment and Development (AAAID)					
8	Network for Ecofarming in Africa and the Near East (NEFAN)					
9	Gulf Cooperation Council Agricultural Research Centre (GCCARC)					
10	African Plant Nutrition Institute (APNI)					
11	The Eastern Mediterranean Public Health Network (EMPHNET)					
12	Arab Board of Health Specializations (ABHS)					
13	Arab Centre for Nutrition (ACN)					
14	Arab Institute for Training and Research in Statistics (AITRS)					
15	Arab Institute for Women (AIW)					
16	Arab Network for Early Childhood Development (ANECD)					
17	Arab Thought Foundation (ATF)					
18	League of Arab States (LAS)					
19	Middle East and North Africa Harm Reduction Association (MENAHRA)					
20	Arab Council for the Social Sciences (ACSS)					
21	Foundation Cheikh Khalifa Ibn Zaid					
22	Arab Organization for Liberties and Equal Rights					

#	Organization	CCFS	PH	Edu	ED	Gov
23	Arab Organization for Quality Assurance in Education (AROQA)					
24	Arab Science and Technology Foundation (ASTF)					
25	Arab States Research and Education Network (ASREN)					
26	Association of Arab Universities (AAU)					
27	Islamic Educational, Scientific and Cultural Organization (ISESCO)					
28	Abdul Latif Jameel Poverty Action Lab (J-PAL) Middle East and North Africa (MENA)					
29	Arab Institute for Women (AiW)					
30	Arab Monetary Fund (AMF)					
33	Arab Trade and Development Bank (ATDB)					
34	Middle East Investment Initiative (MEII)					
35	Middle East and North Africa Financial Action Task Force (MENAFATF)					
36	Arab Democracy Foundation (ADF)					
37	Arab Center for Research and Policy Studies (ACRPS)					
38	Arab Network for Democratic Elections (ANDE)					
39	Arab Institute for Human Rights (AIHR)					
40	Arab Reform Initiative (ARI)					
41	Middle East Institute (MEI)					
42	Mediterranean Women's Fund (FFM)					
43	Al Kawakibi Democracy Transition Center (KADEM)					
44	Economic Research Forum (ERF)					
45	The Arab Center for Research and Policy Studies, Qatar					
46	The Issam Fares Institute for Public Policy and International Affairs, AUB, Lebanon					

Table 3: National Organizations and Networks:

#	Organization	CCFS	PH	Edu	ED	Gov
1	Agricultural Research Center (ARC) in Egypt					
2	Moroccan National Institute for Agricultural Research (INRA)					
3	Tunisian National Institute for Agronomic Research (INRAT)					
4	Jordanian National Center for Agricultural Research and Extension (NCARE)					
5	Lebanese Agricultural Research Institute (LARI)					
6	Emirates Center for Agricultural Research and Development (ECARD)					
7	Mauritania Agricultural Research Institute (IMRA)					
8	Algerian National Institute of Agricultural Research (INRAA)					
9	Sudanese Agricultural Research Corporation (ARC):					
10	Oman Animal and Plant Genetic Resources Center (OAPGRC)					
11	Kuwait Institute for Scientific Research (KISR)					
12	Palestinian Agricultural Research Center (PARC)					
13	Qatar National Food Security Programme (QNFSP)					
14	Bahrain Centre for Studies and Research (BCSR)					

#	Organization	CCFS	PH	Edu	ED	Gov
15	Desert Research Center Egypt					
17	Climate Change Research Network (UAE)					
19	National Research Centre (Egypt)					
20	King Faisal Specialist Hospital and Research Centre (KSA)					
21	Pasteur Institute of Morocco					
22	National Institute of Hygiene (Tunisia)					
23	Hamad Medical Corporation (Qatar)					
26	National Center for Education Development and Research (NCEDR), Egypt					
27	National Center for Scientific and Technical Research (CNRST), Morocco					
28	Masdar Institute of Science and Technology, UAE					
29	Qatar National Research Fund (QNRF)					
30	Scientific Research and Technological Development Fund (SRDF), Tunisia					
31	King Abdulaziz City for Science and Technology (KACST), Saudi Arabia					
	Palestinian Hydrology Group					
32	Egyptian Democratic Academy (EDA)					
33	Lebanese Association for Democratic Elections (LADE)					
34	Jordanian Commission for Democratic Culture (JCDC)					
35	Association Marocaine pour l'Education et la Citoyenneté (AMEC), Morocco					
36	Palestinian Center for Peace and Democracy (PCPD)					
37	Yemen Polling Center (YPC)					
38	Libyan Women's Platform for Peace (LWPP)					
39	Bahrain Transparency Society (BTS)					
40	Tunisian Association for Management and Social Stability (TAMSS)					
41	Algerian Association for Human Rights (AADH)					
42	Center for the Study of Democracy, University of Westminster, Egypt					
43	Center for Strategic Studies, University of Jordan, Jordan					
44	Center for the Study of Islam and Democracy (CSID), Tunisia					
45	Center for the Study of the Arab World, Saint Joseph University, Lebanon					
46	Doha Institute for Graduate Studies, Qatar					
47	Moroccan Institute for Policy Analysis					
48	Orient-Institute Beirut, Lebanon					
49	Palestinian Hydrology Group					

Table 4: Universities

#	Organization	CCFS	PH	Edu	ED	Gov
1	American University of Beirut (AUB), Lebanon					
2	Lebanese University, Lebanon					
3	Lebanese American University (LAU)					
4	United Nations University – Maastricht Economic and Social Research Institute on Innovation and Technology (UNU-MERIT), Lebanon					

#	Organization	CCFS	PH	Edu	ED	Gov
5	University of Balamand (Lebanon)					
6	University of Jordan (Jordan)					
7	Jordan University of Science and Technology (Jordan)					
8	Hashemite University (Jordan)					
9	Al-Balqa Applied University (Jordan)					
10	Mutah University (Jordan)					
11	German Jordanian University, Jordan					
12	Princess Sumaya University for Technology (Jordan)					
13	University of Petra (Jordan)					
14	Birzeit University (Palestine)					
15	An-Najah National University - Nablus, Palestine					
16	University of Mosul - Mosul, Iraq					
17	King Abdullah University of Science and Technology (KAUST), Saudi Arabia					
18	King Saud bin Abdulaziz University for Health Sciences (Saudi Arabia)					
19	King Saud University (Saudi Arabia)					
20	Prince Mohammad Bin Fahd University (Saudi Arabia)					
21	King Saud University (Saudi Arabia)					
22	King Abdulaziz University (Saudi Arabia)					
23	King Fahd University of Petroleum and Minerals (Saudi Arabia)					
24	Effat University (Saudi Arabia)					
25	Dar Al-Hekma University (Saudi Arabia)					
26	Zayed University, UAE					
27	United Arab Emirates University (UAE)					
28	Khalifa University (UAE)					
29	New York University Abdu Dhabi (UAE)					
30	The American University of Sharjah, UAE					
31	University of Sharjah, United Arab Emirates					
32	Kuwait University					
33	Gulf University for Science and Technology, Kuwait					
34	Qatar University (Qatar)					
35	Hamad bin Khalifa University (Qatar)					
36	Northwestern University in Qatar, Qatar					
37	Sultan Qaboos University (Oman)					
38	University of Bahrain (Bahrain)					
39	American University in Cairo (Egypt)					
40	Egypt-Japan University of Science and Technology (E-JUST) (Egypt)					
41	Ain Shams University (Egypt)					
42	Alexandria University (Egypt)					
43	Assiut University (Egypt)					
44	Benha University (Egypt)					
45	Cairo University (Egypt)					
46	Mansoura University (Egypt)					
47	Menoufia University (Egypt)					
48	Minia University (Egypt)					
49	Suez Canal University (Egypt)					

#	Organization	CCFS	PH	Edu	ED	Gov
50	Tanta University (Egypt)					
51	Zagazig University (Egypt)					
52	Suez Canal University (Egypt)					
53	Al-Azhar University - Cairo, Egypt					
54	The British University in Egypt, Egypt					
55	Beni-Suef University (Egypt)					
56	National Research Centre (Egypt)					
57	Zewail City of Science and Technology (Egypt)					
58	University of Carthage - Tunis, (Tunisia)					
59	University of Sfax - Sfax (Tunisia)					
60	University of Tunis (Tunisia)					
61	University of Tunis El Manar (Tunisia)					
62	University of Manouba, Tunisia					
63	University of Monastir (Tunisia)					
64	University of Tunis El Manar (Tunisia)					
65	University of Science and Technology Houari Boumediene - Algiers (Algeria)					
66	University of Blida (Algeria)					
67	Mohammed VI Polytechnic University - Ben Guerir (Morocco)					
68	University of Casablanca Hassan II (Morocco)					
69	University of Marrakech Cadi Ayyad (Morocco)					
70	University of Khartoum - Khartoum, Sudan					

Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis of R4D Actors

Overall, most respondents focused on the many weaknesses of the R4D actors and contributors, that require addressing to enable better contribution towards policy reform. Nevertheless, there were a few identified strengths to be capitalized on. Respondents also noted that the diversity of the region means that strengths, weaknesses, opportunities and threats are not homogenous. Specifically, Gulf region countries such as UAE, Saudi Arabia and Qatar were consistently mentioned as financially capable countries who have in recent years started to accelerate their investment in their universities and in the research and innovation field and thus many of the weaknesses do not apply to them, and in term of strengths they are capable to invest in state-of-the-art infrastructure, attract top international and regional talent, and support research programs. Annex 3 presents the SWOT summary for each focus area as derived from the key informant interviews.

Strengths of R4D Actors

Resilient Institutions

The MENA region has faced significant challenges in recent years, including political instability, economic hardship, the COVID-19 pandemic, and increased restrictions imposed by the growing challenges. Despite these challenges, many institutions in the region have shown remarkable resilience,

particularly universities in Lebanon, Palestine, Egypt, and Jordan. They have a good number of highly qualified researchers, have worked together to build on their strengths and comparative advantages, have been publishing a greater number of peer-reviewed papers in journals, and have even attracted funding for research while continuing their mandate of teaching and education. Some have even managed to connect with the private sector. There is also a slight shift towards more applied research from the predominant academic research. Public universities play an important role in research, but the quantity and quality of research is heavily dependent on their internal capacity, infrastructure and funding which in many cases is limited. On the other hand, better funded private universities or universities backed by large endowments, such as AUB, AUC, KAUST, Mohammed VI Polytechnic University, can afford to invest more in applied research and are generating high-quality research within the different sectors. Some funding agencies have also connected with these research institutions and rely on their research to translate into policy papers or assist in other policy related work. However, it must be pointed out that universities in countries undergoing economic hardships such as Lebanon and Egypt are affected, even universities backed by endowments such as AUB and AUC.

In the agricultural field, there is a trend to pursue more practical and applicable approaches not only for applied research but also upscaling of the research. Such institutions seek to find sustainable, practical solutions to local problems such as the use of endemic crops instead of “popular” crops or the reuse of treated wastewater instead of pushing for desalination. There are a few incubators and startups as well as institutions that have been set-up in several countries with the sole purpose to transfer research and knowledge to the end users. Such institutions exist in Egypt, Jordan, Lebanon, Morocco, Algeria, Tunisia as well as several Gulf countries.

Gulf countries, which can fund their own research, are actively recruiting scientists, scholars, and doctors from universities and research institutions from the region and internationally were also able to remain strong during the pandemic. The stable economic and geopolitical conditions of these countries have made them attractive destinations for experts, resulting in a brain drain from other countries in the region. However, this brain drain has also led to the establishment of well-funded universities with respectable infrastructure and enabling environments, which can help to build regional capacity in the long term.

While universities were amongst the most resilient research institutions in the region, think tanks, government organizations, and NGOs also remained functional. These institutions provided different perspectives to research and development, with many of them changing their research topics to align with the current needs of the area. However, a great number of NGOs in Lebanon were not able to survive due to the lack of funding and support.

Existing of Capacity

The MENA region has a growing number of highly knowledgeable researchers in the areas of global health, science, education, agriculture, inclusive governance and others. Although many researchers leave the region due to conflict and political issues, a few have returned after acquiring knowledge and training by highly ranked universities overseas, giving them an advantage in advanced knowledge and

skills. Moreover, the existing capacity researchers, be it skilled or young, in the region are motivated, eager to grow and learn, and are internationally and regionally connected and aware. They are exposed to different languages and have a growing awareness of the need for evidence-based policy making in the region.

The region has also seen a significant increase in capacity for research on climate change, with a high number of peer-reviewed papers published in journals and a steady increase in the number of authors from the region contributing to the IPCC reports.

Finally, the newer generation of researchers in the region have grown up in a world dominated by technology and have been quick to adopt new tools and platforms to facilitate their research. Technology has had a significant impact on collaboration, enabling researchers to work together across distances and time zones, share data and insights in real-time, and break down barriers between researchers in different parts of the world. This has helped to foster a more global research community and make findings more accessible to a wider audience. The younger generation of researchers in the region are educated, dynamic, and resilient, ensuring the future of research and development in the region.

Weaknesses

Respondents identified many weaknesses that are endemic within the R4D landscape in the MENA region. Many of these weaknesses were already touched upon in the landscape section. The main weaknesses revolve around:

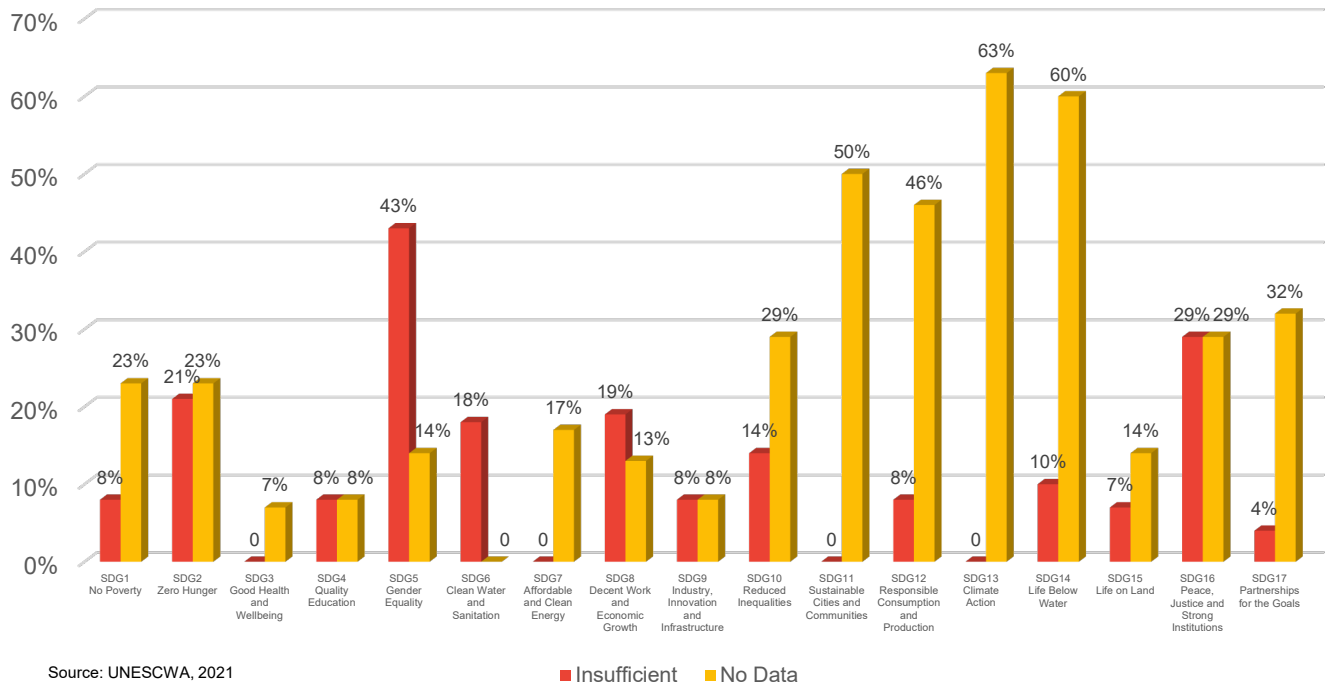
Limited Institutionalized Policy Built on Evidence

One of the significant weaknesses that hinder R4D is the limited institutionalized policy built on evidence. There is a lack of structural forums or channels of consultation for interfaces between policy and science in the MENA region. This lack of communication and collaboration means that policy makers are not interested or ready to listen to research. Instead, policy is made on strategic and political interests rather than evidence. Similarly, a wide gap exists between research institutions and end-users, such as policymakers and the public, which limits meaningful and impactful projects and thus diminishes the effectiveness of R4D. As a result, this leads to a lack of evidence-based policy making, hinders the progress of research in the region, restricting the potential positive impact of research. For instance, policymakers may not be aware of the latest research findings and, therefore even if willing, may not prioritize their inclusion in policy decisions. As a result, resources may be further misallocated, and policy decisions may not be evidence-based. This has driven low public investment in R4D in the region, resulting in limited knowledge sharing and research expansion. This has led to inefficiencies, missed opportunities, and even negative impacts on development efforts. Moreover, there is very little research that looks at how policy is made in the region. Although there are a few organizations in the region (e.g. Issam Fares Institute for Public Policy and International Affairs) that are looking at that aspect, the efforts are minimal and insufficient.

Much of the research generated by universities in the region has been academic research with limited development and policy implications. This is often driven by the desire to publish research in international journals with high impact factors for career advancement. This focus on academic research and publishing in international journals has led to research that is of interest to international journals, but not necessarily relevant to the region. As an example, MENA is one of the biggest per capita host of refugees in the world. When conducting research about this topic, quoted resources were mainly from Global North sources even though most refugees live in the Global South.

Another issue is the inadequacy of data knowledge and evidence generated by the region and for the region. There is a lack of data available from the region, both nationally and regionally, which limits the ability to make informed policy decisions. For example, a recent report by UNESCWA showed that data availability to report on the SDG indicators in the Arab region is extremely low as exhibited in Figure 3, which reflects the broader inadequacy of data required for evidence-based decision-making. For example, if we look at the Figure 3 below, inadequacy of data pertaining to education is on the lower side, however, as observed during the interviews, education R4D in the region is minimal and less prominent than other sectors to the extent that the Arab region is often not represented. This lack of data makes it difficult to assess the effectiveness of policies and programs and limits the ability to identify and address development challenges.

Figure 3: SDG Data Availability in Arab Region



It was observed that there is an increased interest in research outputs and evidence by policymakers, especially the younger generation, after the COVID-19 pandemic as it raised the awareness of governments as well as the public to the importance of research, R4D and evidence for effective

decision making. However, COVID-19 negatively impacted the institutional landscape in the MENA region by exacerbating existing challenges such as inequality, failed governance, and the challenges of civil society and research to impact policy.

This weak linkage between policy and science communicated across all focus areas, can be a significant problem for R4D as the success of R4D depends on its ability to inform policy and guide decision-making processes. Therefore, it is crucial to strengthen the linkages between policy and science to ensure that R4D is effectively translated into policies and actions. Of particular importance is encouraging organizations to work together as a consortium of actors from community, civil society, donors and policy makers. Furthermore, working groups need to be interdisciplinary to implement changes on local governance, policy and socio-economic aspects.

Limited Financial Resources for Research:

Limitations of funding is a significant issue for R4D because conducting research requires a considerable amount of financial resources. R4D aims to address various challenges faced by communities, such as poverty, inequality, and lack of access to basic necessities like clean water, healthcare, food, and education. Without adequate funding, researchers may not be able to access the necessary equipment, materials, or resources to conduct their studies effectively. Underfunded institutions also face difficulties in recruiting participants, conducting fieldwork, or analyzing data, which can compromise the quality and impact of their research.

During the interviews, funding was a recuring theme among all sectors. There is a lack of emphasis on research and development at the national level, particularly in social sciences and humanities. National funding for research is largely limited and even that limited funding was further negatively affected with the growing economic and political challenges many countries in the region are facing. Funding for independent research is even more constrained. Funding from big foundations is limited in the region, and other types of funding, such as from Arab donors, are often based on conditionality. International organizations investing in R4D are limited, with IDRC identified as being one of the few organizations investing in R4D in the MENA region. Moreover, some pointed that resistance by some international players to give up power and control over research agendas, results in donor-driven agendas that may not be the urgent needs of the country. Consequently, R4D efforts are fragmented and to a certain extent driven by donor funding that is directed towards specific projects or programs.

Insufficient funding leads to a lack of long-term forward thinking, poor investment in infrastructure, weak institutions that lack physical and financial infrastructure not fulfilling their mandates, and disempowered researchers publishing and working in a limited capacity and producing poor work. The inadequacy of infrastructure and financial support to research was observed during the covid pandemic, where excluding the investment of the UAE government in the vaccine with China, no investments in a COVID vaccine were observed in the region. Another rising concern related to this is investments in Artificial Intelligence (AI). AI is going to be imperative in future research endeavors, and unless investments are made in this powerful yet expensive infrastructure to equip researchers with the needed AI facilities, both academic as well as R4D will suffer as this will weaken research institutions considerably in the future.

Limited funding and inadequate infrastructure and enabling environment drives the highly educated individuals to attain work outside the region, weakening the institutions further. Public universities heavily reliant on funding to operate as admission fees are nominal, especially those that don't have endowments to back their operations; feel the financial pressure more so. Without monetary support research programs are the first to suffer and sometimes stopped, with some researchers resorting to assume consultancy roles to enable them to carry forth. National Research Centers find themselves in a similar position. This also may discourage researchers from pursuing innovative or high-risk projects, which may have significant potential for transformative impact, but also involve higher costs and uncertainties.

Opinions on why the region has been unsuccessful in attracting considerable R4D funding varied and ranged from weak proposals, to diversion of both national and international funds to deal with the rising economic and political crisis in the region, to the fact that investments by the region's private sector in research and development is not a heeded trend, to the observation that supporting R4D in the region is overlooked by international foundations and funders. After COVID, some noted that there is more focus on the humanitarian development nexus, with R4D institutions moving more towards immediate assistance and resilience building, in addition to applied research. This shift is not across the board and is more evident in national and regional organizations.

Indisputably, economic deterioration and the complexity of challenges have made it difficult for the research landscape to catch up. The region is in a chronic crisis context, which requires a new approach to the research landscape and how institutions deal with it. Nonetheless, there is growing realization that previous approaches have not made the necessary impact, and institutions are now working to address this challenge and institutional landscape change in the region.

However, it must be pointed out that limitation of funding doesn't apply to Gulf countries particularly Saudi Arabia, United Arab Emirates and Qatar who have recently notably increased their investments in research.

Enabling Environment and Interdisciplinarity

There is a variation in the quality and experience of universities in the MENA region, with some universities having excellent capacity in terms of the institution, the researchers, and the quality of research that is published. However, there are universities that are nowhere close to the research level as these "few above par universities," lacking in quality human resources, professionalism, infrastructure, and general know-how. There is also a variation in the language between English, Arabic, and French, which further hinders collaboration. Those institutes that are available to receive funds for research are not always known and need to be mapped and shared with possible funders. Multidisciplinary approaches are not common, with each sector working alone without collaboration as captured in previous sections. A specific weakness related to AI and technology was noted particularly among government personnel.

The enabling environment within an institution will affect the outcome of research. It was observed that there are highly qualified individuals in the region that have no enabling environment to pursue

R4D, due to limited funding, opportunities, guidance and motivation. In many instances, new researchers are hard to come by due to lack of motivation to pursue research careers and the absence of guidance and promoting environment. From medical graduates to economists to IT professionals, going down a private sector career path is much more lucrative and rewarding than a research path. This has resulted in a limited number of expert researchers and created a gap.

Some noted that there is a general weakness in ethical and research production standards in universities, particularly public ones. Moreover, researchers work in silos with limited interdisciplinary research taking place. To improve the quality of research there is a need to have more rigorous standards in institutions, requirements for more collaboration and interdisciplinary work, and for experts to connect and to learn from each other through open research networks that encourage sharing ideas and information.

Among the notable gaps in the region is the lack of independent R4D as most is tied to government and government institutions. With the exception of a few Centers of Excellence that are able to attract unrestricted grants that are without specific requirements or conditions. Once the research is tied to the government, it is expected that information related to political and economic governance such as corruption and inclusion in the region will not be discussed or researched. Research that will show negative findings that the government isn't keen on recognizing will be forfeited. This provides limits to research topics and censored findings.

There is a need to invest in institutional capacity building to support R4D in the MENA and to allow national and regional institutions to take a more active role in shaping the research agenda. This includes building capacity related to applied research among academics, not only policy makers. Many respondents communicated that talent currently exists in the region but there is no support, investment, and enabling environment to develop their capacities. Professionals that are working and educated in the region, don't always excel in their field because there is no enabling environment for this to happen, so the levels of these professionals don't always increase - a missed opportunity! Additionally, highly educated professionals leave the region to pursue careers in more economic and politically stable countries that will probably pay more money and provide more room to grow. This movement happens within the region, mainly to gulf countries which keeps the talent in the MENA region, but also happens to countries outside the region.

NGOs and think tanks are weak in terms of funding, and universities, although excellent in research, can at times be academic-oriented and not practical leading to a focus on academic research and publications. Additionally, it was mentioned by a few that North Africa academically is very capable but at the same time mostly traditional in their writing and presentation, and information is communicated usually in Arabic or French in a "1970s manner" which differs in language and style by other countries in the region. This may also be an inhibitor of more expanded and stronger collaboration between the Middle East to North Africa.

Another limitation to the enabling environment is the high-level control many governments in the region exercise through censorship, propaganda, and suppression of dissenting voices to control what

information is disseminated to the public and limit sharing of information that is critical of the government. There are a lot of approval processes that are required by some of the governments to go forward with R4D projects, which can disempower R4D institutions in the region that do not have a good network with members within the public sector to assist with obtaining approvals. Additionally, some governments in the MENA region exhibit in-direct formal means to contain knowledge sharing such as pre-approval of public events to the extent of sharing data about attending individuals. Other forms of control include containment of investigative journalists (although in some countries in the region there is no such thing as an investigative journalist); and limiting the research and publishing of topics such as corruption. This creates a culture of fear and self-censorship, which can stifle creativity and innovation, and thus limits the free flow of information and ideas. This can be a significant weakness when it comes to decision-making, as policymakers may not have access to all the diverse range of opinions, ideas and evidence necessary for making well-informed decisions. Additionally, authoritarian governments may be less likely to respond effectively to crises, as they may be more focused on maintaining their own power and control.

Knowledge about Research:

Research is essential for making informed decisions, as it provides policymakers with the data and evidence needed to make informed choices. However, many policymakers in the region lack the knowledge and expertise necessary to evaluate research studies properly. This can lead to a situation where policymakers may base their decisions on incomplete or inaccurate information, leading to unintended consequences or negative outcomes. For instance, policymakers may not understand the limitations of a particular study or may not be aware of the context in which the study was conducted. Additionally, policymakers may be unaware of emerging research trends or may lack the resources to keep up with the latest research findings. It was also observed that many decision-makers, especially in countries financially capable, resort to hiring international consultants with limited knowledge in the region to draft national strategies and policies. All these factors can lead to incorrect conclusions being drawn from the research, or to dependence on knowledge and evidence applicable to other countries and region, which can result in ineffective or even harmful policies.

To address this weakness, policymakers may need to invest in research literacy programs to improve their understanding of research methods and the interpretation of research findings. Additionally, policymakers can work to establish partnerships with researchers and research institutions to ensure that they have access to the latest research findings and can collaborate with experts in their fields. Finally, policymakers can invest in building internal research capacity, such as hiring dedicated research staff or creating research departments within government agencies. This can ensure that policymakers have the necessary resources and expertise to make informed decisions based on the latest research.

Opportunities

Technology

The MENA region has a growing population of digitally savvy individuals, which presents an opportunity to leverage digital technologies for research and development. Digital technologies such as big data,

AI, and machine learning can enable researchers to access and analyze vast amounts of data and generate evidence-based insights. Additionally, digital communication tools such as social media and video conferencing can facilitate collaboration and knowledge-sharing among researchers across the region and beyond. The use of digital technologies can also help address issues such as limited funding and weak linkages between policy and science. However, initial investments in infrastructure is required. Overall, the adoption of digital technologies for research can help promote more efficient and effective R4D in the MENA region.

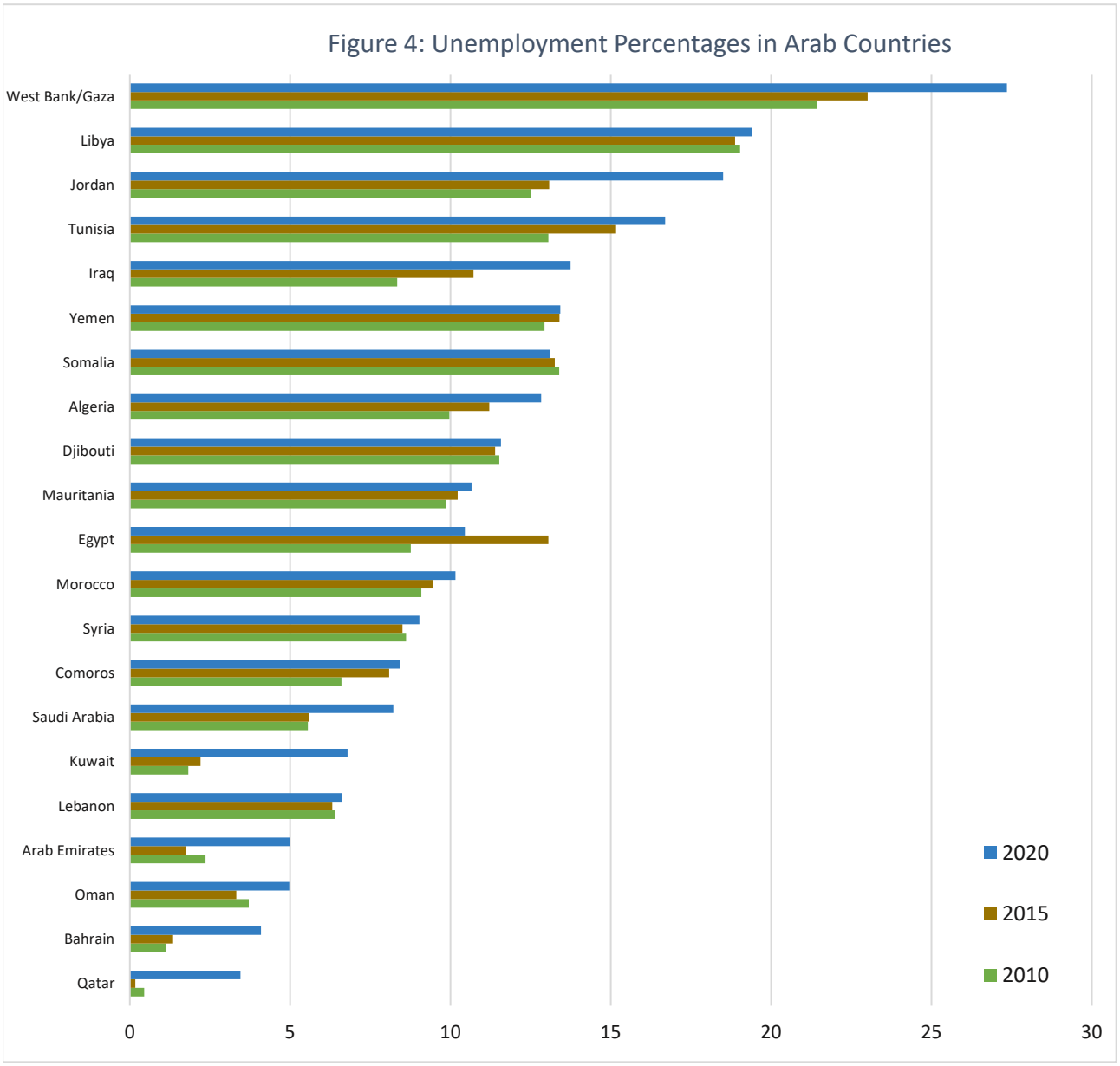
Another opportunity relates to taking advantage of the shift in research and technology development to new sectors such as renewable energy, bio and nano technology, and technology within climate change. International funding currently exists for these avenues that the region can capitalize on in ways that benefit the region. For example, the MENA region is rich in natural resources, such as solar and wind energy, which can be harnessed to develop sustainable energy solutions. The region also has diverse ecosystems and unique flora and fauna which make it well-suited for bio and nano technology research and can lead to the development of innovative and sustainable solutions to challenges faced by the region, such as water scarcity and climate change. Additionally, investing in these sectors can lead to the creation of new industries and job opportunities, driving economic growth and development.

Human Capacity

The youth bulge in the MENA region presents an opportunity for R4D as young people are often at the forefront of innovation and creativity. With 60% of the population in the MENA region under the age of 30, investing in research and development in areas such as entrepreneurship, innovation, and skill-building, can provide young people with opportunities for meaningful employment and contribute to economic growth. This is particularly important given the high unemployment rate (as exhibited in Figure 4) particularly amongst Arab youth and women, underlining the need for R4D to help create job opportunities for the youth and women.

Additionally, young people in the region are increasingly interested in social and environmental issues, which presents an opportunity to focus research efforts on topics such as renewable energy, sustainable agriculture, improved health and inclusive societies. By engaging and empowering young people in the research process, the MENA region can harness their creativity and energy to solve the challenges facing their communities and drive positive change and contribute to sustainable development. This is supported by the newer generation amongst policy makers who realize the importance of research and evidence to government decision making and policy change.

Moreover, the region has a pool of highly skilled and capable researchers who possess a deep understanding of the region's social, economic, and environmental challenges. There is also a growing number of researchers interested in topics of global concern such as climate change, refugees, food production in arid regions and whose work and publications are on par with international researchers and of competitive quality. This is evident in the observed increase of publications from the region and in authors contributing to IPCC reports. These researchers have the potential to contribute significantly



Source: ILO (2021)

to R4D by identifying innovative solutions to pressing issues relevant to the region. Many of these skilled experts provide short-term consultancy services to international donors and regional organizations in the field of R4D. These services are provided on an ad-hoc basis, in addition to their full-time jobs. However, there is a lack of indigenous private sector companies that effectively bring together these experts in a structured, long-term mechanism to provide comprehensive support and generate independent evidence.

In recent years, many MENA countries have also invested in strengthening their higher education systems, particularly in the Gulf but also in other countries, resulting in an increase in the number of highly qualified fresh graduates. For example, the American University in Cairo has set up programs to support and enhance the potential of young PhD researchers. These and similar investments in other

countries created a pool of young capable researchers, that if utilized and mentored properly can promote R4D that is context-specific and rooted in the region's realities. This approach can lead to more effective solutions to challenges and enhance the region's development outcomes.

Promoting and advancing this local human capacity and expertise instead of importing experts from the Global North which many universities in the Gulf region have been doing, and which several governments engage for their strategy development, presents an opportunity to harness the potential of local researchers and build their capacity to conduct research that is contextually relevant and responsive to the needs of the region. Local experts have the advantage of knowing the language, local challenges as well as the local social-economic norms. IDRC has been working on localization and decolonization of research for a long time and is well-positioned to lead in this area.

Donor Funding

International funding can provide a significant opportunity for R4D in the MENA region. Organizations such as IDRC and the World Bank have funded various research projects in the region, which have led to important policy changes and improvements in various sectors. Moreover, funding is available for the region though currently it targets specific projects or programs, as well as NGOs rather than universities and research institutions. Establishing networks and fostering collaboration amongst the different actors can facilitate utilizing this funding for R4D that will generate evidence to support the development agenda. Governments in various countries are also seeking external funding and expertise to support their efforts towards economic growth and development. This has led to a growing trend among policymakers to approach funders for research and data to assist with economic and policy reform.

Currently there is a growing pool of international funding related to climate change mitigation and adaptation, biodiversity, and equity which can provide resources for research institutes and universities in the MENA to expand their research capabilities and collaborate with international partners. It is important to seek funding for projects that respond to national needs.

International funding is also important as in the past, many cases of national funding is based on findings of internationally funded projects. Moreover, international funding can pursue and effect changes in areas that are not top priority for national governments due to the many challenges they face in the region though these priorities advance public good. For example, the “Gendering the Green Generation Project’s” objective is to reduce gender inequality as a barrier hindering women from increasing their share in the benefits generated by the development projects funded by the Green Generation, which is the new development strategy for the agricultural sector 2020-2030 in Morocco. Well targeted international funding can be utilized to support research projects that address key challenges in the region, such as poverty, food insecurity, education, and health. By supporting such projects, international funding agencies can play a crucial role in promoting sustainable development and creating a more equitable and prosperous MENA region. Furthermore, international funding can attract more attention to the MENA region and its potential for research and development.

Collaboration

Collaboration and networking presents a significant opportunity for R4D in the MENA region. Traditionally, different fields and sectors have tended to work in isolation, with little interaction or collaboration. However, in recent years, there has been a growing recognition of the need for collaboration and working in an interdisciplinary manner to tackle complex issues facing society, such as climate change, global health issues, economic and political reform. Collaboration between different fields and sectors leads to cross-pollination of ideas and knowledge, as well as increased efficiency and effectiveness in problem-solving. This collaborative approach can also help to break down silos and foster a more integrated approach to addressing complex challenges. By working together, different disciplines and sectors can share resources, expertise, and knowledge, leading to more effective and sustainable solutions. Overall, this collaborative approach has the potential to drive innovation and contribute to the development and growth of different sectors and industries.

Moreover, collaboration between universities, NGOs, think tanks, and policymakers can help address critical issues and improve policymaking, ensuring that research is utilized to drive change. South-South collaboration can provide opportunities for cross-regional learning and knowledge exchange, fostering innovation and creating new opportunities for research partnerships.

Some countries in the region have already used the findings of IDRC-funded projects to implement and promote new nationally funded research and projects, as seen in Algeria. Additionally, research has sometimes had an influence on regional and global policies, especially in the Global Health sector. These collaborations and networks can help to overcome the limitations and weaknesses in the linkages between policy and science and promote evidence-based decision-making in the region.

Threats

Geopolitical Instability, Conflicts and Economic Hardships

Countries in the MENA region suffer from geopolitical instability as well as conflicts. This had significant impacts on the country's economic situation, its security and the well-being of its people. Consequently, funding for R4D, which is already limited in the region, fell lower on the priority funding list of governments and is even undermining the steady support to public universities and research institutions. Moreover, international funding for R4D to the region is low as institutions that are based in the MENA are portrayed as being situated in countries that are middle to higher income that do not need funding. Philanthropists tend to finance institutions in poorer countries like in sub-Saharan areas.

During these unstable times authoritative governments have the power to censor and ban some types of social media or communication technologies which may hinder the exchange of ideas and knowledge and can interrupt research, funding streams, movement of experts etc.

Geopolitical instability, conflicts and economic hardships has also led to the exodus of many talents from suffering countries to the gulf region or to countries outside the region which has led to depletion of local expert capacity, which is the following identified threat.

Depleting Capacity

The geopolitical limited budgets in the MENA region have resulted in the departure of highly specialized individuals, as seen in Palestine and Lebanon. Despite investments made by international funds to train and develop capable researchers in countries such as Morocco, many have chosen to pursue their careers abroad due to a lack of opportunities and better positions. This trend has left older, more established individuals nearing retirement in these institutions. Additionally, the exodus of professionals from the region, including top Arab economists who tend to work for organizations like the IMF or private companies abroad, has further depleted local expertise. The movement of youth within the region, such as leaving Jordan to work in Saudi Arabia, is also a contributing factor.

External Influence and Resistance to Localization

There is a general gap on localization, data pertaining to the region is quoted from resources in the Global North, for example the number of displaced people in the region is quoted from Global North resources even though refugees live in the Global South. Donors and other players need to value and respect data and information that is in Arabic, not only in Global North languages. For a vibrant, meaningful and impactful R4D, more localization of work needs to happen. However, international players whose financial contribution to the region is high and who have their own agendas which at times may not be in the public interest of the country, may resist giving up power and control over research agendas. This can threaten localization efforts and limit R4D projects driven by the region to address local needs and priorities that do not fall within the dominant international discourse.

It was mentioned that there is a lack of research and development in the MENA region particularly in education and science policy. Most of the research in these areas is conducted by international organizations such as the World Bank with little focus on the Arab region. For example, the Arab region is often not represented in global reports when it comes to education and development, which may be due to a lack of research and data coming out of the area, as well as a lack of interest in the area. Another area with high ‘power’ dynamics is technology. Technology empowered players can be powerful and finding the appropriate ‘governance of technology’ modality is critical on many fronts. Currently, the private sector has a strong hold on technology, and they may seek to influence technology governance structures in the region to their own advantage which poses many threats including R4D.

Climate Change

Climate Change has been very noticeable, and the region is not acting fast enough to address this issue. According to a recent UNDP report, if mean world temperatures increase by 2°C above pre-industrial levels, ‘unusual heat extremes have been projected to occur in about thirty percent of summer months across most of the MENA region’. Under a +4°C scenario, summer mean temperatures may increase as much as plus 8°C by the end of the century coupled with 0.6m in sea-level rise. 56°C could become a new norm of extreme temperatures established throughout the region under a 4°C scenario coupled with a reduction in precipitation of as much as 50%.

This is a real threat that is not adequately addressed by current R4D initiatives. However, some respondents pointed that climate change resilience with a concentration in the agricultural and food systems sector is a growing priority area as several governments in the region are investing in R4D to increase the efficiency of agriculture and food production, reduce waste, and improve the quality of food. This includes the development of new crop varieties, sustainable farming practices, and innovative food processing technologies.

Actions that can Mitigate Weaknesses and Threats

Mitigating weaknesses and threats in R4D requires a multifaceted approach. Building the capacity and financial resilience of knowledge institutions is crucial, as well as encouraging research networks both inside and outside the region. OpenAir and Economic Research Forum (ERF) were referred to as success stories.

Adequate funding is essential for R4D programs to attract and retain top talent, build necessary infrastructure and facilities, and conduct rigorous research that meets the needs of the communities they aim to serve. Adequate and sustainable funding to the right and impactful research institutions and programs can address key issues. However, support and funding must also target small and emerging entities. Though it may involve a lot of handholding at the start it is imperative for building a dynamic and healthy R4D landscape in the region.

Initiatives to increase the effectiveness of the funded R4D include strengthening monitoring and evaluation, ensuring that the research is responsive to local socio-economic circumstances and addresses the priorities of the community and country. Another significant initiative involves a network mapping exercise to facilitate connections among institutions and individuals to foster collaboration and multidisciplinary research. This includes connecting capable institutions and researchers to funders, establishing connections among researchers across disciplines within the region as well as connections with researchers outside the region.

Localization is also critical, as it promotes local capacity and institutions, provides opportunities for researchers to step out of traditional academic research and contribute to R4D in their communities while ensuring that research is culturally and contextually relevant. Incentives such as career advancement opportunities, funding, and research positions are also necessary to retain talented researchers within the region. Moreover, it may be useful to invest in training programs that support existing researchers to learn about the culture of evidence-based policy making. Within the aspect of career advancement, gender-based equality should also be taken into consideration, where funding is not gender biased and women are encouraged to pursue or continue to pursue R4D careers.

Finally, it is essential to involve digitally enhanced capacity building, create an enabling and encouraging environment for youth to take up research as a career path, and ensure that R4D initiatives are responsive to the needs and priorities of the region in the long term. This can be sought by utilizing technology and tools to promote digital platforms for collaboration and knowledge sharing both regional and international.

IDRC is well positioned to lead many of these mitigating initiatives given its long-standing and consistent engagement in the region supporting the R4D efforts and institutions. During that period, it has built good relationships and credibility and an understanding of the local context. This has been supported by having senior program officers from the region that know the language and understand the local cultural, social, economic, and political context. This can support identifying areas where R4D initiatives can make a significant impact. Strengthening that component can help to build trust and establish relationships with local communities. It also allows engaging smaller and emerging organizations from the region and strengthening their programs and sustainability prospects. This together with increased financial investments can help in promoting R4D initiatives that are responsive to the needs and priorities of the region in the long term, not only during times of short term crisis.

Salient Recent Trends or Shifts

Recent trends and shifts in the MENA region's research priorities have been affected by three notable factors: the Arab Spring, the Covid-19 pandemic, and the recent economic deterioration of several countries. These factors have had significant negative effects. Nonetheless, there are some observed positive trends in research, innovation, and knowledge production such as increased collaboration, data sharing, and evidence-based policy making especially among younger policymakers.

The **Arab Spring** had many implications including a noticeable increase in geopolitical instability as well as conflicts. This had significant impacts on the affected countries' economic situation, security and the well-being of its people. The most affected countries are Syria, Libya and Yemen. While conflict arises in these countries, funders have directed budgets towards the context of the crisis and not for research. Funding for R4D, which was already limited in the region, was constrained even more as it fell lower on the priority funding list. Geopolitical instability, conflicts and economic hardships also led to the exodus of many talents from suffering countries to the Gulf region or to countries outside the region which has led to a depletion of local expert capacity. This trend has left older, more established individuals nearing retirement in these institutions with an urgent need to fill in a vacuum of rising experts while at the same time struggling with financial and infrastructure constraints that impede research. This outward migration and the displacement of populations didn't only affect the afflicted country, but also countries in the region receiving huge numbers of refugees. Jordan and Lebanon are countries that have been stifled with different waves of refugees not least the latest wave of Syrian refugees which has cause even more stress on their vulnerable natural and economic resources. However, this outward migration also includes highly educated and skilled experts whose exodos is a brain drain for the exiting country, but is an advantage to the recipient country, which is something that the Gulf countries have been reaping the benefits of.

The **COVID pandemic** posed additional economic constraints on the region due to the measurements adopted on a global, regional and national scale to contain the pandemic which further reduced the availability of funds for R4D. Nonetheless, some noted that after COVID focus on the humanitarian development nexus increased. Additionally, research institutions have moved more towards immediate assistance and resilience building, in addition to applied research. The strongest R4D institutions carrying research and generating evidence in the region are the universities. Though most

of the research generated by universities has been and continues to be academic in nature, there is a slight shift towards more applied research which the COVID pandemic has strengthened. Concurrently, the pandemic had an observed impact on governments and policy makers increasingly appreciating the benefit of research and evidence particularly within the public health domain. Additionally, the health sciences sector has become a priority due to the region's growing and displaced population, as well as the COVID-19 pandemic. Moreover, due to the disruption of food supplies during the pandemic as economies shut down, concerns regarding the high dependency of the region on food imports increased and governments across the region have prioritized food security and increasing local production. Finally, governments and institutions prioritized the use of technology and digital solutions (e.g. digital health solutions have been implemented in some countries to improve patient outcomes and increase access to healthcare services; or early warning systems and disaster risk reduction).

During the last two years, several countries in the region have been dealing with severe **economic crisis** which in some cases has been coupled with increased authoritarianism. An example is the financial collapse in Lebanon, the financial crisis in Egypt and Tunisia, and the growing financial debts of Jordan. The rising economic hardships have further diminished funds going to academic institutions stifling support for infrastructure investments, capacity building and research. Moreover, these different challenges have intensified the high rate of youth unemployment, which has reached alarming levels in some countries like Jordan, where it has reached 50% according to the International Labor Organization. This has led to significant demographic shifts and social, economic, and political impacts, particularly for young people who are struggling to find employment and establish themselves in their communities. The rising economic predicaments is intensifying the high rates of youth unemployment and leading to a new wave of migration both within the region and beyond. Many young people are leaving their home countries in search of better opportunities, which has led to significant demographic shifts in the region. This has disrupted existing socio-economic structures, including health and education systems, and has created significant challenges for humanitarian organizations. The displaced people have put increased stresses on infrastructure and resources in both origin and destination countries, and is affecting geopolitical stability. It also threatens to leave a vacuum of specialized expertise and motivation in R4D institutions across affected countries.

These three triggers have further stifled R4D and have led to more red tape, required approvals and difficulty in accessing funds. It has also given rise to self-censorship by researchers, journalists, and advocates as a means of protection from professional, physical or emotional attacks. It was mentioned by few that women, in particular, may be more affected by these pressures and resolve to self-censorship, or unauthored publications to *“avoid judgement and pressure to leave their career.”* This is a point that merits further investigation.

On the positive side, in terms of innovation, knowledge, and science production, the region is making strides forward. Many countries, particularly the Gulf countries, are heavily investing in their higher education systems and encouraging research agendas. This can be seen by a rising number of region-based universities such as KAUST, as well as attracting leading international universities to open campuses in the region, New York University to name one. This has led to highly qualified fresh graduates with research skills and an appreciation for the importance of evidence-based decision

making. Leading universities in other countries in the region such as the American University in Cairo have also set-up new more applied programs. Concurrently, the younger generation of researchers in the region, having grown up in a technology-driven world, readily embrace new tools and platforms for their research. This has enhanced collaboration between different disciplines, industries, and sectors and has enabled real-time sharing of data and insights across distances, time zones and borders, making findings more accessible to a broader audience. This along with an increased interest among researchers in the region on topics of global concern including climate change, refugees, climate resilient food production has led to an increase in quality research and publications and is a positive step towards shaping more effective R4D activities in the region.

Many of the respondents indicated that there is an observed rise in policy makers – especially among the younger generation – which acknowledges and appreciates the usefulness of data and evidence. Some of the entities generating evidence indicated that decision-makers have been increasingly approaching them for data. Nonetheless, this rising appreciation does not appear to have yet resulted in an increased investment in funding research by governments in the region, with the exception of a few 'rich governments in the gulf region'. It was mentioned that governments in countries like Egypt and Jordan have been collaborating with external partners such as the ERF to implement reforms and generate the data and research needed to support evidence-based policy making.

Some respondents mentioned that there is a trend of more openness by the governments while others indicated there is a trend for more protection. What the writer concludes is that openness to data sharing relates to the type of data and if governments view this data as sensitive. Nonetheless, collaboration between different fields and sectors, and sharing of data, can lead to cross-pollination of ideas and knowledge, as well as increased efficiency and effectiveness in problem-solving.

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Annex 1: Key Informants

#	Interviewee, Organization, Title	CCFS	PH	Edu	ED	Gov	Interview Date
1	**Montasser Kamal** IDRC, Global Health Program Director mkamal@idrc.ca						17 April 2023
2	**Qamar Mahmood** IDRC, Senior Program Specialist qmahmood@idrc.ca						4 April 2023
3	**Chaitali Sinha** IDRC, Senior Program Specialist csinha@idrc.ca						14 April 2023
4	**Shadi Saleh** Global Health Institute, American University of Beirut. Professor of Health Systems and Financing ss117@aub.edu.lb						19 April 2023
5	**Abla Sibai** American University of Beirut, Dean of Faculty of Health Sciences abla.mehio-sibai@aub.edu.lb						20 April 2023
6	**Yousef Khader** JUST Center of Excellence for Applied Epidemiology, Director yskhader@just.edu.jo ykhader@emphnet.net						17 April 2023
7	**Hammou Laamrani** UNESCWA, Economic Affairs Officer Food and Environment Policies hammou.laamrani@un.org						11 April 2023
8	**Redouane Choukr-Allah** UM6P (Mohammed VI Polytechnic University), Senior Professor redouane.choukrallah@um6p.com						24 April 2023
9	**Marwan Owaygen** IDRC, Interim Director for MENA Regional Office mowaygen@idrc.ca						19 April 2023
10	**Rawan Damen** Arij, Director General rawan@arij.net						25 April
11	**Ruhiya Kristine Seward** IDRC, Senior Program Officer rseward@idrc.ca						5 April 2023
12	**Yacine Boumghar**						11 April 2023

	Centre d'études des procédés chimiques du Québec, Director yboumghar@cmaisonneuve.qc.ca						
13	**Roula El-Rifai** IDRC, Senior Program Specialist relrifai@idrc.ca						11 April 2023
14	**Nadim Houry,** Arab Reform Initiative, Executive, Director n.houry@arab-reform.net						17 April 2023
15	**Arjan De Haan** IDRC, Senior Program Specialist adehaan@idrc.ca						25 April 2023
16	**Ibrahim Ahmed Elbadawi** Economic Research Forum (ERF), Managing Director iaelbadawi@erf.org.eg						27 April 2023
17	**Yasmine Fahim** Economic Research Forum (ERF), Managing Director yfahim@erf.org.eg						27 April 2023
18	**Marwan Muasher** Carnegie, Vice President for Studies mmuasher@ceip.org						19 April 2023
19	**Nagla Rizk** Professor of Economics, American University of Cairo Founding Director, Access to Knowledge for Development Center naglarzk@aucegypt.edu						26 April 2023
20	**Seteney Shami** Arab Council for Social Sciences, Director General shami@theacss.org						20 April 2023

Annex 2: Discussion Guide

- Formal Introduction of yourself and the project
    - My name is Seta Tutundjian, , I am the founder and CEO of Thriving Solutions , a UAE-based sustainability consultancy dedicated to decarbonizing our economy, safeguarding biodiversity, advancing food-nutrition-water security, as well as supporting SDG 2030 and ESG priorities.
- Obtain permission to record the conversation for the use of the consultant during the analysis and report writing.
- Introduce the Project: check-in is part of IDRC's new Strategy 2030, which to carry an analysis of the regional R4D landscape in the MENA region to inform IDRC's upcoming Strategic Learning and Adaptation Report (SLAR) and Strategy check-ins. It will also contribute to ensuring the research IDRC supports is contextualized and responds to emerging needs, opportunities, and challenges across the region.

  This is not a project evaluation, or portfolio evaluation.

- Do you have any questions or comments before we proceed?

1. **Full name and position title**
2. **Which Focus Area within the IDRC are you working in?**
    1. Climate Resilient Food Systems
    2. Global Health
    3. Education and Science
    4. Sustainable Inclusive Economics
    5. Democratic and Inclusive Governance
    6. Forward Planning Fund

3. **Very briefly what is the type of your involvement in the focus area?**

4. **How would you describe the current Institutional Landscape for R4D in the (their focus area) Region? And how do the national, regional, international organizations fit into this landscape?**
    a. If covering more than one focus area, does it differ between focus areas?
    b. Have you noticed anything else worth mentioning in the current Institutional Landscape in R4D?
5. Are there any notable gaps in the institutional landscape that need to be addressed to improve R4D in the region?
6. What would you say are the main strengths of the different actors (i.e., universities; think tanks; government; major NGOs that conduct R4D), how do the strength differ they differ by regions, and type f actors (national, regional, international).
7. What would you say are the main weaknesses of the different actors, how do they differ they differ by regions, and type f actors?
8. What would you consider the main opportunities in R4D in MENA, how do they differ by regions, and type of actors?

9. What would you consider the main threats in R4D in MENA, how do they differ by regions, and type of actors?
10. How do you think the weaknesses and threats can be mitigated.
11. **What salient recent trends or shifts have occurred in the composition and the role of actors in the R4D landscape over the last five years?**

    c. Has a change in context of composition happened? In what way?
    d. what are the key factors behind this change?
    e. What is the trajectory of influence (or reach) of these actors?

Annex 3: SWOT Analysis

During the key informant interviews, interviewees identified specific SWOT per sector. These findings have been recorded in the below tables for Climate Change and Food Security (CCFS), Public Health (PH), Education (Edu), Economic Development (ED) and Governance (Gov).

Climate Change and Food Security

Strengths

- Existing research institutions in agriculture.
- Donor agenda based on intelligence surveys and data analysis.
- Capacity in terms of research and peer review published journals has increased.
- Increase in financing of agriculture and food system research.
- Established Institutions are resilient and strong.
- Taking women into consideration in their projects.

Weaknesses

- Lack of resources and budget for research.
- Gap in knowledge translation to implement change.
- Socio-economy negatively affecting enabling environment.
- Funding for climate and food systems is generally from public funding, in comparison to international funding.
- The system to obtain funding is complicated, with a lot of procedures and approvals required.
- Many times, National strategies are developed by international organizations that are not familiar with the local needs, this translates to projects that are funded that also do not meet local needs.

Opportunities

- Work with governments to increase the capacity through R4D organizations.
- Should be an integrated approach between national, government, private and NGOs.
- A lot of opportunities to work within climate resilience, water and food systems.
- Use findings of IDRC projects to implement nationally funded projects.
- Set up incubators and promoting startups for agriculture.
- Require projects that are adapted to meet the climate change challenges.

Threats

- Exodus of highly trained professionals, some of which have trained abroad.
- Economic and Geopolitical instability.
- Lack of accountability.
- Lack of interest by donors.
- Limited funding.
- Lack of framework to link science to policy to market.
- Lack of understanding of the local climate and ecological systems.

Public Health

Strengths

- Established Institutions are resilient and strong.
- Increased number of research centers particularly in the Gulf region.
- Collaboration across different sectors.
- International connections.
- Many researchers in the region are knowledgeable and some are even internationally trained.
- Gulf countries are highly funded and recruit researchers from the region.
- Use of AI innovation and solutions.

Weaknesses

- Authoritarian governments/ Increased government control.
- The system to obtain funding is complicated, with a lot of procedures and approvals required.
- Public health is not permitted to operate in all countries.
- Lack of supporting environment to promote women and youth in research.
- Limited Budget and funding.
- Political challenges that lead to lack of resources.
- Low research productivity.
- Lack of support and funding from international foundations.
- Lack of entities dedicated to public health in North Africa.

Opportunities

- Some global developments to increase stability in the region.
- If we could benefit from the fact that this region has some of the poorest countries and some of the richest countries.
- Increase in technologies that promote networking and sharing of ideas.
- Increase in digital technologies within the sector.
- Collaboration between sectors, networks and working groups.
- Prioritizing local issues and sustainability.

Threats

- Exodus of highly trained professionals.
- Funding is donor driven.
- Resistance of open-source databases and concept in region.
- Economic and Geopolitical instability.
- Competition between sectors.
- Displaced populations.
- Climate Change.
- Research money invested in context of crisis.
- Crisis related prioritization over general health of national populations.

Education

Strengths

- Established Institutions are resilient and strong.
- Large amount of capacity and highly motivated people in the region.
- Researchers in the area willing to change.

Weaknesses

- Authoritarian governments/ Increased government control.
- The system to obtain funding is complicated, with a lot of procedures and approvals required.
- Lack of research on how higher education and science policy should feed into development.
- Research by international organizations do not focus on the Arab region.
- Arab region is not represented in global reports.
- Based research for a particular project that does not accumulate knowledge or develop expertise.
- Funding is limited.
- Think tanks are fragmented and small.
- Weakened Capacities

Opportunities

- Investment in R4D and developing expertise in specific areas to provide continuity in research.
- Good quality journals in the region.
- Growing awareness of the need for evidence-based policy making.

Threats

- Economic and Geopolitical instability.
- Threats to social challenges and change as well as freedom, research and data gathering.
- General lack of trust and tight control over donor money.
- Exodus of highly trained professionals.

Economic Development	
Strengths - Established Institutions are resilient and strong. - Increased number of research centers particularly in the Gulf region. - Gulf countries are highly funded and recruit researchers from the region.	**Weaknesses** - The system to obtain funding is complicated, with a lot of procedures and approvals required. - Political challenges that lead to lack of resources. - Low research productivity. - Lack of support and funding from international foundations. - Research money invested in context of crisis. - Censorship. - Weakened Capacities. - Lack of interdisciplinary work between sectors.
Opportunities - Collaboration between sectors. - Prioritizing local issues and sustainability. - Collaboration between sectors, networks and working groups.	**Threats** - Economic and Geopolitical instability. - Competition between sectors. - Displaced populations. - Climate Change. - Exodus of highly trained professionals.

Governance

Strengths

- IDRC is a unique funding agency that focuses on evidence-based policy, filling the funding gap for research in MENA.
- Established Institutions are resilient and strong.
- Growing trend towards politicizing R4D and finding homegrown solutions.

Weaknesses

- Research funding is limited.
- International players are resistant to give up power and control over research agendas.
- Lack of localization.
- NGOs and think tanks are weak.
- Lack of scholars and think tanks specialized in technology governance.
- The system to obtain funding is complicated, with a lot of procedures and approvals required.
- Disconnect between policy and research.
- Lack of open-source databases and information.
- Authoritarian governments/ Increased government control, that control or limit investigative journalists.
- Gap in knowledge translation to implement change. Between research and end user.
- Challenge in using AI in the Arabic Language.
- Censorship.
- Lack of interdisciplinary work between sectors.

Opportunities

- The trend towards localization and decolonization of research is gaining traction.
- Promote capacity building especially the youth changing the way to engage governments to push R4D for policy change.
- South-South collaboration can be a great benefit for research in the region.
- Collaboration between Universities, NGOs, think tanks, and policymakers can help address critical issues and improve policy-making.
- Potential to grow in technology landscape.
- Potential for NGOs to get involved in Cyber security with a focus on human rights.
- Institutions to produce knowledge for public good and train researchers for engaged research.
- Donors need to be agile,
- and utilize windows of opportunities (stabile times) in the region.

Threats

- Limiting funding is difficult to fully support local organization.
- International players are resistant to give up power and control over research agendas.
- Lack of coordination and solidarity among civil society actors.
- Governance of technology can be influenced by the private sector or by other governments.
- Geopolitics plays a part in national security and innovation.
- Economic and Geopolitical instability.
- Social justice is often overlooked.
- Global agenda does not take local community into account.
- Resistance to reform change by elite.
- No change in the movement of media in the region since it is taken over by private companies or government owned that dictate the narrative.
- No accountability, accountability can be met with hostility.
- Exodus of highly trained professionals.