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JORDANIAN MEDIA REALITY IN COVERING WATER ISSUES AND CHALLENGES

PILOT STUDY

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Water Innovation Technologies Project (WIT)

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Pilot Study

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PREFACE

Jordan is currently facing many challenges weighing on its economic and political development. Many factors have contributed in exacerbating these challenges, with the most prominent being chronic water scarcity. In recent years, the prevailing climate, the lack of rainfall, and the steady population growth have led to a serious depletion of water resources, especially subterranean ones, thus exacerbating water scarcity within Jordan.

As Jordan faces these challenges, various international development agencies have committed to helping Jordan achieve its development goals. Within these international efforts, the United States Agency for International Development (USAID) has provided support to many development sectors in Jordan, especially the water sector, where USAID has implemented many initiatives and programs to enhance effective management of scarce resources. Among these programs, the Water Innovation Technologies Project was implemented by Mercy Corps, which aims to: conserve water in Jordan by focusing on water rationalization; promote efficient use in the agriculture and community sectors by adopting water-saving technologies and practices; improve access to finance to adopt these technologies; and support institutions to raise awareness about water challenges and how to overcome them.

In the same context, the Center for Defending Freedom of Journalists (CDFJ) is a Jordanian civil society institution, therefore in order to enhance its role in training and qualifying journalists and developing their skills and knowledge, based on the accumulated experience over the past years in preparing media studies, the CDFJ undertook the preparation of a study on “Jordanian Media Reality in Covering Water Issues and Challenges” to highlight the media coverage of water-related issues and the challenges being faced as a result of exacerbating factors. The CDFJ will be responsible for the preparation and implementation of specialized media training with the aim of developing and enhancing the skills and knowledge of journalists and workers in the media sector so that they can cover water issues and challenges that are being faced in Jordan accurately on multiple media platforms, in turn increasing the interest in water issues, problems, challenges, and raising community awareness. Ultimately, the project was undertaken to search for solutions using professional media templates in order to help reduce the depletion of water resources at both agricultural and household levels.

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KEY TERMS AND CONCEPTS

Water Security

Water security is defined as “the reliable availability of an acceptable quantity and quality of water for health, livelihoods and production, coupled with an acceptable level of water-related risks.”

Sustainable development will not be achieved without a water-secure world. A water-secure world considers both the intrinsic value of water and its use for human survival and well-being.¹

Defining Awareness in Regard to Language and Idiom

Awareness of current events is one of the foundations of citizenship; the media is one of the strongest tools to raise awareness in people² about a particular problem or cause, such as health awareness in water scarcity. The purpose of raising community awareness about health, whether through media or other means, is to improve health, reduce diseases, disabilities, deaths and improve the quality of life for the individual and society.³

In regard to meaning, the word awareness is defined as the state of being conscious of an issue at hand and spreading gained knowledge to other people to convince them of a certain idea or opinion, in addition to adopting a certain approach for the means of fulfilling the desired result of the one raising aware-

ness.⁴ The study aims to find the best channel of raising awareness among the Jordanian population and later advocating for solutions on water issues.

Investigative Journalism⁵

Investigative journalism is defined by the United Nations Educational Scientific and Cultural Organization (UNESCO) as “the unveiling of matters that are concealed either deliberately by someone in a position of power, or accidentally, behind a chaotic mass of facts and circumstances - and the analysis and exposure of all relevant facts that may be confidential or public.”⁶

While investigative journalism is a major source of information, it is also time consuming and expensive, since it requires groups of journalists, months of research, interviews of varying frequencies with a large number of participants, as well as traveling long distances, using computer devices for analyzing databases, and the use of legal personnel to secure documents under the Freedom of Information Act.

Independent and Pluralistic Media

The “Windhoek Declaration” defined Independent media is any form of media, such as radio, television, newspapers, or internet-based publications that are free of influence by government or corporate interests. The term has varied applications; in international development, the term independent media is

¹ David Grey and Claudia W. Sadoff- (2007-09-01). «Sink or Swim? Water security for growth and development». Water Policy. Iwaponline.com. 9 (6): 545–571.

² Definition of Awareness in the comprehensive dictionary of meanings <https://bit.ly/2D4XWUA>

³ The concept of health awareness in language and idiom (Mawdoo3 website) <https://bit.ly/2AAWKYo>

⁵ Story-based inquiry; a manual for investigative journalists (PDF) Manual. UNESCO Publishing (PDF).

⁶ Investigative Journalism: Defining the Industry. Global Investigative Journalism Network- <https://bit.ly/38WcYYx>

used in relation to the development of new media outlets, particularly in areas where there is little to no existing media presence.⁷

The Windhoek Declaration defined Pluralistic Media in article 3 as the termination of any kind of monopolies and having as many newspapers as possible that reflect the widest possible range of views within the community.⁸

Private Media Organizations

Domestic broadcasting entities owned and operated by private companies or individuals for financial profit and are registered in the country, where most of their profit is sustained by commercial revenue and subscriptions. These types of media institutions are motivated to design their programs in a manner that will attract the largest number of possible viewers and listeners (i.e. customers).

Community-Based Media (Community Media)

Community-based media puts the tools of communication into the hands of people from the local community, allowing them to manage and create their own means when producing programs. Community media projects are non-profit, and they act as a service to the community, therefore they are often found in remote areas where it is difficult to find other sources of information.⁹

State Media Organizations

State media or state-controlled media is media that is under editorial control of a country's government, directly or indirectly through the supervision of the Ministry of Information or any related ministry. This media is usually regulated by the government; therefore, the information published is almost always favorable to the government.¹⁰

Public Service Broadcasting (PSB)

State media or state-controlled media is media that This non-profit media is usually referred to as "Public Authority for Radio & TV" and uses public money to broadcast in the interests of the public as a whole. It is neither commercial nor state-owned; it is also free from political interference and pressure from commercial forces. Through PSBs, citizens are informed, educated and also entertained.¹¹

⁷ The concept of Independent Media (Wikipedia). <https://bit.ly/2AVEpVP>

⁸ Windhoek Declaration for the Advancement of Independent Press (UNESCO). <http://www.medialegalsupport.jo/ar/node/69>

⁹ Student Handbook on Freedom of Expression, United Nations Educational, Scientific and Cultural Organization UNESCO, page 26, chapter three.

¹⁰ Student Handbook on Freedom of Expression, United Nations Educational, Scientific and Cultural Organization UNESCO, page 26, chapter three.

¹¹ Previous source.

PREFACE

In general, water scarcity is a major constraint to economic and developmental growth in Jordan. Water scarcity has been exacerbated by a doubling of the population over the past two decades (due to population growth and forced migrations from neighboring countries) in addition to climate change; all of these factors have contributed to high demand and a strain of already insufficient water sources. The issue of water scarcity is not just an environmental, climatic, or economic issue. Howard S. Wheater, an international expert in water resource management, has noted that 80% of the world population faces threats to water security and that a severe water crisis is due by 2070. Wheater stated, "Water management is a scientific issue, but it is also a matter of politics, governance and societal values."¹² According to a 2013 study on water scarcity published in the scientific journal *Hydrology and Earth System Science (HESS)*, about half of the world's population will live under stressful water situations between the years 2071 and 2100.¹³

The suffering from water scarcity poses a threat to all sectors that depend on the availability of water for their durability, development, and prosperity. It is also expected that providing care will be extremely difficult as the population increases. Climate change and rainfall patterns will also play a role in the region, as they will continue to exacerbate the water scarcity problem and affect all aspects of life in Jordan.

Jordan is considered one of the semi-arid countries with scarce water resources where the proportion of desert land area in the country is around 92%, and the Jordanian per capita share of water annually, for all purposes, is less than 100 cubic meters, far below the international water poverty line of 500 cubic meters per person per year. In addition, 85-92% of the amount of rain is lost annually by evaporation,¹⁴ with the rest being distributed in the form of flood water and groundwater recharge. Among the most prominent problems of the water sector in Jordan is illegal use/theft and the high-water losses due to weak water supply systems.

The challenges of the water sector and the agricultural sector cannot be separated. Since 1989, the agriculture sector in Jordan has witnessed a shift from being productive and depending on government intervention in regard to sector production mechanism to no government intervention except for supervision and regulation. These transformations included aspects that directly affected the livelihood and work of farmers and the productivity of the agricultural sector in general.¹⁵ One of the most important problems and challenges of the agricultural sector in Jordan are these that are associated with water scarcity.

Many people rely on the media to highlight important local and national issues; however, due to lack of media coverage on water scarcity, the importance of the issue has been absent from Jordanian society.

¹² Managing Water under Uncertainty and Risk: Water security issue (UNESCO). <https://bit.ly/2NX-o9Xn>

¹³ A global water scarcity assessment under Shared Socio-economic Pathways—Part 2: Water availability and scarcity. (EGU) <https://bit.ly/2ZEifjI>

¹⁴ Jordan benefits from only 10% of waterfall (Al-Mamlaka Channel). <https://bit.ly/3hs5786>

¹⁵ Why is agriculture in Jordan no longer a productive sector? (7iber we-site). <https://bit.ly/2OMINLm>

While one of the most important media goals is to educate the general public, it seems that the media has not succeeded in covering the issue of water scarcity; therefore, this study was conducted to investigate the challenges and problems of media coverage in regard to the water scarcity issue in Jordan.

The challenges in the water sector are being talked about and circulated, but the problem lies in whether or not the media presented these problems consistently, highlighted these problems, and helped create a public opinion that can be used as leverage to pressure for a resolution of these issues. The main question the study poses is whether or not the media focused on the issue of water scarcity to raise awareness in order to overcome the issue or to mitigate its effects.

RESEARCH JUSTIFICATION

It is no secret that Jordan is the second most water-scarce country in the world¹⁶ and that water scarcity has become a huge obstacle to economic, agricultural, and developmental growth in Jordan. The population increase due to natural population growth and migration, combined with climate change, has increased water demand.

Despite efforts made in the past decades, the reality of water scarcity is becoming more difficult and the waste and depletion of water resources is still ongoing. People have not yet adopted water conservation behavior to preserve water sources and reduce waste.

These challenges have been of great importance over the past decades for successive governments. However, the Jordanian media does not seem to have attached such importance to this sector and its challenges, as the press coverage does not delve into its challenges and has not created a search for solutions, but only touches the surface and leaves many questions unanswered.

Hence the study “Jordanian Media Reality in Covering Water Issues and Challenges” was created in order to explain the reasons behind the media’s neglect in shedding light on water issues. The study aims to answer the following questions:

- How do the media address the water shortage issue and its challenges in Jordan?
- To what extent does the media give priority to water issues in their coverage?

- Does the media provide sufficient information on water issues to the public?
- Does it play a role in raising awareness, and providing solutions?
- Are there media policies within the press institutions that deal with water issues, challenges, and problems?
- Do media professionals have sufficient knowledge of water issues? What are their capabilities in reporting these issues in their media work?
- Does the media provide in-depth content about water issues?
- What are the sources of information that media professionals use in their coverage of water issues? What is the role of the private sector in enriching media content?
- Does social media play a role in raising community awareness of the importance of water issues and its challenges?

¹⁶ Jordan is the second most water-scarce country in the world (Al- Al-Mamlaka). <https://bit.ly/2CEmwvN>

RESEARCH METHODOLOGY AND TOOLS

The general methodology of the study was divided into two frameworks: the theoretical framework and the practical framework.

The theoretical framework of the study dealt with the descriptive, analytical, quantitative and qualitative approach based on the theory of communication, uses and gratification (Katz, Blumler & Gurevitch, 1974) to analyze the results of monitoring the local media coverage of water issues and challenges in Jordan. Monitoring was carried out through the use of search engines and indexing, which monitors the content of the pages included in the intended terms “Index Monitoring.” The study population was represented by monitoring the media coverage on the subjects of the study, which are “the challenges and problems related to covering water issues in Jordan.” To achieve this, the researchers selected specific terms, also known as “keywords.”¹⁷ to monitor the subjects of the study, which are subject to research and analysis.

The practical framework of the study relied on the opinion of researchers and supervisors who developed appropriate tools for research in four basic axes, with four research tools also being developed based on the method of quantitative and qualitative analysis of the information extracted from the tools. For the purposes of this study, five focus group discussions were organized on the basis of methodological principles and standards which took into ac-

count the principle of exploration and research into the problems and challenges facing local media in covering water sector issues. Journalists specializing in covering the water sector participated in these sessions, as well as former and current officials, in addition to influential activists from social media, and also academics specializing in the field of environment and water participating in two sessions.

The researchers also conducted eleven in-depth interviews with former water sector officials, experts, academics, and media leaders and within the methodological context of the study; the CDFJ conducted four surveys measuring the attitudes of stakeholders of the four target groups. The four target groups were: media professionals specializing in covering the water sector; media specialists/non-specialists in covering the water sector; social media influencers; workers in public institutions concerned with the water sector. The four surveys received 87 responses from 51 male and female journalists, 24 social media activists, and 12 government employees, all of whom were part of the intended sample.

¹⁷ Keywords in annexes.

EXECUTIVE SUMMARY

The study aims to analyze and monitor the relation between media coverage and water issues, especially in the agricultural and domestic sectors. To achieve this goal, it was based on the theory of communication, uses, and gratification, using a set of research tools that included opinion polls, media monitoring, sessions and in-depth interviews with the concerned parties. The reason for conducting this study is to identify and mitigate the challenges that Jordan faces due to water scarcity at a time where the absence of societal awareness on this issue is noticed as a result of the lack of media coverage in the local media. The following is a brief presentation of the most prominent results of this study:

First: Media Planning

Some experts and officials surveyed believe that the plans of some institutions operating in the water sector do not align with the rapid changes in the media sector, which negatively affects the level of awareness of Jordanian society regarding water challenges and available solutions.

Second: Media Policy

The study found that media policies and plans of media institutions regarding water and agricultural issues are not present as required. The media is more focused on crises and immediate events than developmental and strategic dimensions of water issues.

Third: Information Flow and Diversity

The study concluded that the government, the Ministry of Water and Irrigation (MWI) and its affiliated water institutions, has the most information on water issues. However, this does not necessarily mean that the flow of information to media outlets is constant or that the information provided enriches the work of journalists, nor does it help it to provide informative media content that contributes to solving challenges in the water sector. The study also showed the importance of providing information in Arabic on international reports and recent studies as well as the need to assist experts in enabling them in providing scientific information to media in simplified form.

Fourth: Specialized Skills and Knowledge of Media Professionals

The study showed, with agreement from officials and experts, that journalists need to be empowered in following up with the water sector. Likewise, media professionals agree that their knowledge and skills need to be built and developed to understand specialized issues related to a strategic sector that touches society in all its segments, such as the water sector.

Among the observations revealed by the study is that the interest in developing the capabilities of media professionals specializing in water issues is not documented and unknown; the researchers in the

study were unable to reach the parties that have previously made a systematic effort in enhancing media to deal with the water sector.

Fifth: Information and Communication in the Water Sector Institutions

The MWI and its affiliated entities have high credibility in their work and in the information they communicate, but it is agreed that the institutions operating in the water sector need better institutional development to deliver their message to the media. Sufficient information delivery to the media would achieve stability in work and continuity without concern of people's ability to speak to the media.

Sixth: Private Sector and Water Issues Media Coverage

Despite the efforts made by the private sector in dealing with water challenges, whether in implementing projects or introducing the necessary technologies to stop and reduce water waste, the private sector is still absent from the media scene. The government and water sector institutions do not see the private sector as a partner who can play a role in improving the water situation in Jordan and instead believe that its role is limited to carrying out orders.

If the presence of the private sector in media does exist, it is very limited. Journalists do not deal closely with companies that are interested in the water

sector, nor do journalists deal with advanced technologies that contribute to providing solutions; media professionals rarely resort to listening to private sector contributions or highlighting their views regarding water issues, nor do they show their efforts in dealing with these issues.

Seventh: Social Media and Water Issues

Social media platforms do not seem to be highlighting the challenges and issues of water scarcity, but what was found through the study were complaints from people about water cut-offs, a broken water line, or water theft. Therefore, it is difficult to find abundant content that can contribute to community awareness; it is also not easy to find campaigns discussing the rationalization of water consumption, or ways to reduce agricultural or household consumption.

PREVIOUS STUDIES AND REPORTS

First: Local Studies

A specialized study on “The role of Jordanian daily newspapers in dealing with the water crisis” recommended diversifying the journalistic forms used in water issues and using the form of journalistic investigations and related news stories. The study aimed at studying “Al-Ghad” and “Al-Dustour” newspapers, in order to identify the role that the daily press plays in addressing the water crisis.

The study was carried out by Suha al-Maghribi and discussed in the Faculty of Journalism and Media at Yarmouk University in 2019. It is considered one of the first scientific studies at its level within the Arab world and Jordan dealing with the topic of media coverage of water issues. The study reached several conclusions, the most prominent being that most of the published topics are of a news nature but it relied in “the first degree on its representatives as a main source of information.”

Most of the water-related topics were published on the inside pages of the newspapers; while the newspapers were concerned with all geographical regions, priority was given to the northern region, followed by all parts of the Kingdom, therefore the attention was focused according to the worsening situation in each geographical region.

In January 2020, the Economic and Social Council released “The Country Status Report for the year 2019.”¹⁸ The report stated that the water axis is one

of the primary sectors’ axes and it also presented the reality of the water situation in Jordan, saying that Jordan has suffered not only due to the nature of the dry climate and the lack of water resources, but also as a result of the steady population increase, which has inevitably led to water poverty and a decrease in the per capita share of water.

Regional conflicts have also affected Jordan’s water rights to shared water as shared waters constitute 40% of the total ground and surface water resources, in addition to the climate change phenomena and the associated low precipitation rates and changing patterns.

The report stated that attempting to close the water deficit by depleting groundwater basins, or by over-pumping for the purpose of agriculture, combined with the continued low level of the water surface, works in contradiction of development efforts to combat poverty and hunger in the country.

The report presented the challenges associated with water scarcity and summarized them into two categories. The first category is composed of the social and economic impacts of water scarcity and the inability to achieve the desired development rates from the plans set by the government, which negatively affects the social and economic growth in the Kingdom. The second category is made of the effects on investment from water scarcity and lies in the inability of the sector to meet the economic needs of water resources, which will lead to

¹⁸ Country Status Report 2019- Primary Sectors (Water) Axis. <http://www.escjo/documents/report-2019/9.pdf>

a decline in industrial, commercial, agricultural and touristic investments. The report also presented the features of the water strategy for the years 2016-2025, such as strengthening the water sector infrastructure and building partnerships to integrate within other sectors of food, energy, sustainability, and economic sectors; protection of water cleanliness and water rights; remaining consistent with the vision and strategy of the “Jordan Vision 2025” expanding coverage of water and sanitation services; coordinating funds and donor affairs; creating adaptation programs to confront the climate change phenomena; and encouraging scientific research and development).

The report presented six obstacles that water and sanitation services must overcome to achieve the goals of the water and sustainable development strategy, namely:

1. The random population spread in areas outside the organization, the difficulty of delivering services to these areas, and the high costs of delivering services to them.
2. The horizontal and vertical distance between water sources, communities and cities, which raises the costs of water production and distribution.
3. Insufficient sanitation services, the limited capacity of the water purification stations to treat wastewater in quantity and quality, and the increase in demand for sanitation services as a result of natural and forced population growth.
4. The inability to provide certain areas with sanitized water due to the topographical nature, which necessitates finding alternative pioneering solutions.

5. The pattern of crisis management imposed on the sector, and the need to respond outside the plans boundary and outside the planning areas.
6. The unwillingness of experienced workers to work in the water sector, and the inability to retain them or attract new talent.

Second: Foreign Studies and Research

The MWI bulletin “The Jordanian Water Sector- Facts and Figures” was issued with the aim of providing information to individuals involved in the water sector, the public and private sectors, as well as the community of financiers and supporters of the water sector. The bulletin stated that Jordan is the second most water-scarce country in the world and that less than 100 cubic meters of annual renewable water resources are available to each person; Jordan consists of 15 surface water basins and 12 groundwater basins, and 10 out of 12 groundwater reservoirs are currently being depleted, which is more than the safe limit for extraction represented by annual groundwater recharge.

A study named “Informational Sources, Social Media Use, and Race in the Flint, Michigan, Water Crisis,” published in 2019, aimed to investigate the relationships of race, social media use, and informational sources during the municipal water crisis in Flint, Michigan, United States. The study states: “Residents of Flint, Michigan, are suffering from this nightmare. However, the media have not done a great job of covering this crisis. Over time, with each passing year, there was little discussion about the topic,” and “due to the lack of media coverage, many people may have forgotten Flint’s need for clean water.”¹⁹

¹⁹ Informational Sources, Social Media Use, and 19 Race in the Flint, Michigan, Water Crisis- Routledge. <https://bit.ly/2C26qeJ>

In 2020 the Journal of Water, Sanitation and Hygiene for Development published a study entitled “Challenges and Facilitators of Public Engagement with Water, Sanitation, Hygiene and Other Environmental Health Issues in Ghana and Uganda: Perspectives of Scientists, Journalists and the Public.”²⁰ Using meaningful sampling, they conducted interviews with key informants and focus group discussions with scientists, journalists and members of the public in Ghana and Uganda to identify issues related to promoting public engagement with water, sanitation and hygiene, and other environmental health issues. Inductive objective analysis was used to explore evidence, challenges, and opportunities for public participation. The study stated that “despite the many water, sanitation and hygiene (WASH) and other environmental health challenges in sub-Saharan Africa, little is known about the interactions involving scientists, journalists and the public to aid the public’s understanding of the relationship between water, sanitation hygiene, and health.”

The effectiveness of public participation has been limited due to weak interactions between scholars and journalists and the limited understanding between the audience and WASH issues. Challenges identified included insufficient cooperation between scientists and journalists, lack of time for scholars, pressure from media organizations, and concerns about the insufficient ability of journalists to communicate on environmental issues due to lack of training. Possible solutions included increasing interactions, training in scientific communication, and using media personnel as mediators of knowledge between scientists and journalists to promote public engagement with WASH issues. The study contributes to identifying the necessity of engaging the public in WASH concerns.

²⁰ Evaluation of water shortage crisis in the Middle East and possible remedies. AQUA. <https://bit.ly/2D6arzb>

In October 2019, Journal of Water Supply Research and Technology-Aqua published a study entitled “Evaluation of Water Shortage Crisis in the Middle East and Possible Remedies,”²¹ prepared by a team of researchers consisting of: Omid Bozorg-Haddad; Babak Zolghadr-Asli Parisa Sarzaeim; Mahyar Aboutaleb; Xuefeng Chu; and Hugo A. Loáiciga.

The study stated that “water resources in the Middle East are becoming scarce, while millions of people do not actually have access to adequate water for drinking and health purposes. The depletion of water resources has become a major problem in this region and is likely to get worse.” The study presented the results of a survey of assessing the state of water use and supplies in the Middle East countries. It also stated that part of the challenge is awareness, where media coverage highlights issues of water scarcity, but often fails to frame the discussion about a solution and translate accountability to the public.

Summarizing the Previous Studies

The previous studies and research, despite their scarcity, provided an important entry point to confirm that there is a clear lack of media interest in water issues, and that this deficiency is related to media presentation, which does not enable the public to understand the problems and challenges they may face due to water scarcity, such as drinking water, and other environmental and health problems that are derived from water issues. It also emphasized the problem of water scarcity in the Middle East region, with reference to it as a global problem and/or crisis.

²¹ Evaluation of water shortage crisis in the Middle East and possible remedies (AQUA). <https://bit.ly/2VP9eTv>



CHAPTER I: INFERENCES AND FINDINGS

Jordan is ranked second most water-scarce country in the world,²² and the government may use this fact to show the extent of environmental challenges and problems Jordan faces, but this concern is not reflected within Jordanian society. Jordan's ranking has not turned into societal convictions that translate into action in the everyday life, despite the efforts made in the past decades. The water reality is getting more difficult, the waste and depletion of water resources is ongoing, and people's behavior in dealing with this discrepancy carefully has not been achieved.

There are many challenges in the water sector that cannot be ignored. It is estimated that the quantities of water in Jordan are sufficient for the needs of two million people while being used by approximately 11 million people.²³ Alongside this, the water issues are hand are not only related to the natural increase of the population; rather, the most consequential factor is the forced migration resulting from humanitarian asylum.

Experts clearly indicate the lack of utilization of rainwater, and the ineffectiveness of the "water harvest"

as Jordan loses 90% of rainwater.²⁴ Jordan's loss is due to various reasons, including dry soil, high temperatures, and the lack of dams and desert ponds. The most concerning water challenge is related to the territorial waters, as Jordan gets only 15% of its agreed share from the Yarmouk Basin with Syria,²⁵ in addition to the fact that the economic revenue of agriculture does not exceed 4% of the gross domestic product,²⁶ and the water is sold to them at a very low price, and the current agricultural patterns do not constitute an added value to the economy, according to the respondents in the study.

There are many attacks on water resources and their networks, therefore many former officials demand not sympathizing or accepting the theft of water or illegal digging. Officials also see that the issue of water does not receive sufficient attention even though it is one of the most important problems facing the country. They affirm that water is a strategic issue and one of the most important pillars of economic development, as it plays a great role in creating job opportunities, and is considered a determinant of sustainable economic development.

²² Jordan is the second most water-scarce country in the world – (Al-Mamlaka channel). <https://bit.ly/2CEmwvN>

²³ A statement by a former official, in-depth interview conducted for the purposes of the study.

²⁴ Jordan benefits from only 10% of rainfall, Al-Mamlaka channel. <https://bit.ly/3jKyK6T>

²⁵ A statement by a former official, in-depth interview conducted for the purposes of the study.

²⁶ A statement by a former official, in-depth interview conducted for the purposes of the study.

The water shortage issue is not only an economic and political issue, but it is also an issue of human rights. Access to drinking water that is not polluted is a basic right as it is a condition for preserving livelihoods, health and safety, and human dignity.

These challenges are discussed by water experts, and while we may find them in the words of governments, these challenges do not appear clearly in the media. The ongoing water crises do not appear to be a prominent priority in the coverage of the press, and this is what the study of “Drought ... Jordanian Media Reality in Covering Water Issues and Challenges” sought to inspect, investigate and research; the study aims to find the causes of the broken linkage between crises and media coverage and to reach convincing answers to multiple detailed questions, such as:

How does the media discuss and present the water issue? What are the titles which draw the media's attention in this multiple aspect issue? Does it take priority like other local issues? Does the media provide enough information on water issues to the public, and do they play an educational role? Looking beyond that, are there media policies within the press institutions to deal with water issues, challenges and problems?

Before continuing, it should be asked whether there are media professionals who are well acquainted with the issues of the water sector and whether they are able to convey and express them in their work. Do media institutions provide enough room to present water shortage issues and link them to people's lives? Or does the issue of water only become present if there is an “incident” or a political dispute related to it?

The study relied on multiple tools to extrapolate the water scene and its relationship with the media. During the period from February 23rd to June 23rd, 2020, discussions, interviews and surveys were used to survey the media landscape and water issues: 5 discussion and brainstorming sessions were carried out in which former officials, experts, and media professionals participated; 11 in-depth interviews took place to listen in detail to differing views on which approach would best bring together water and public issues; in addition to four surveys composed of exploratory questions that were developed to provide indicators to contribute to diagnosing the problem. The study went a step further by monitoring and analyzing the content of media outlets, resorting to the Google search engine to track key words related to water issues and challenges, and then auditing the quantitative and qualitative data to analyze the results revealed by the monitoring.

What can be said here is that there are clear inferences shown by the study that can be agreed upon and built on. However, there are also margins for other issues that may be differently understood and addressed, and in light of all discussions, monitoring, analysis and reading of the various polls, the following inferences can be discussed:

First: Media Planning

Most experts and even former officials agree that the media planning of some institutions working in the water sector do not correspond as necessary with the rapid changes in the media sector, whether through visual, written, or social media.

This reflects negatively on the level of awareness of water challenges and the available solutions, in addi-

tion to the limited role of media in immediate crises such as theft and attacks on water lines.

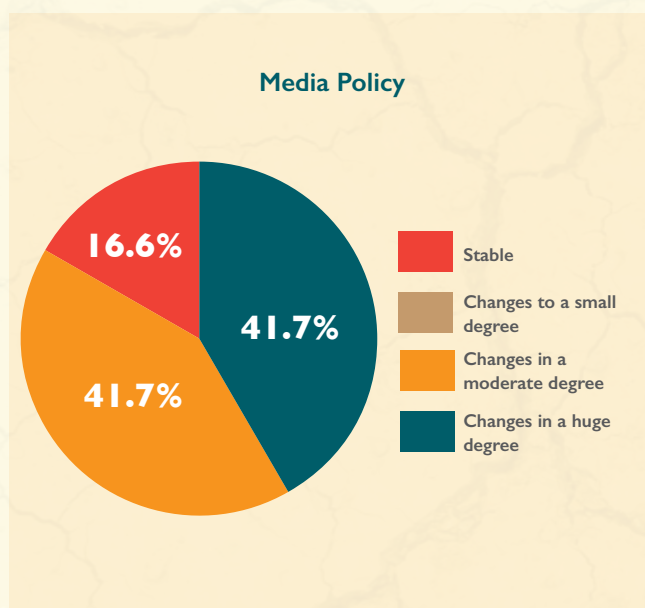
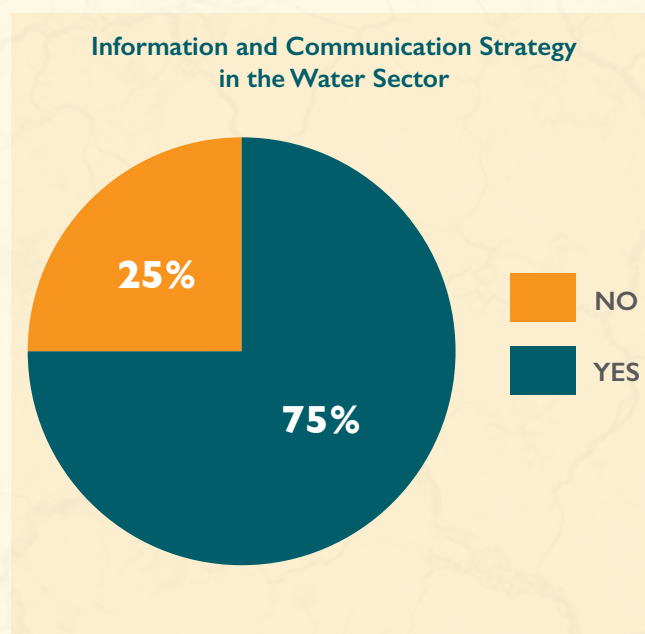
As for the agricultural sector, media plans that address farmers in terms of awareness about water challenges, technologies and water-saving solutions within the strategy of institutions and agencies working in the water and agricultural sector are present, but the weakness depends on the way they are presented. The difficulties within these media plans comes in the forms of reaching the targeted “farmers” and media professionals’ ability to access information.

According to the findings inferred from the interviews and discussion sessions, all the directors of media organizations who were interviewed by the study were unaware of the existence of media planning. They did not feel that there is a systematic approach to deal with the media. The directors ultimately acknowledged that “there is no sustainable approach of the media to deal with water and energy issues despite their importance, and at the same time, there is no media planning in this sector.”

Although experts and former officials in the water sector do not see a clear impact of media planning as well, results from the opinion poll that surveyed workers of the media institutions showed that 75% of them do indeed have a media or communication strategy, which was defined as a specific plan within a time frame that includes clear and specific goals and activities.

Researchers have not been able to access any media or communication strategy in the water sector that is separate from the national strategy for the water sector, and it is important to note that 41.7%

of workers in the water sector believe that the policies of dealing with the media will change with the change of ministers, general secretaries and leaders to a large extent. The same percentage of workers believe a change of ministers, general secretaries, and leaders would cause only a moderate degree of change, while 16.7% of workers found media policies to be stable and unchanging.



Second: Media Policy

All of the interviews and all of the discussions with experts showed agreement that the media policies related to water issues are absent; if present, the water issue in the media is linked to crises and events rather than a vision that addresses water issues as an indispensable dimension of development, economy and investment.

Even the directors of media organizations realize that water related issues are neglected despite their importance to the lives of people. They agree that media institutions have not been aware of the task of developing a media policy in dealing with water challenges, and when a problem occurs, it is dealt with nothing more than “panic.” Therefore, specialization in the water sector is limited and following up on water crises-related stories is not done by media specialists. The media is not instructed to follow crises closely nor do they work to develop their sources of information or lists of water experts necessary to create coverage of water issues. There are no media policies related to water issues, there is only an understanding of the water problem and its general context.

Since the water issues in Jordan need media coverage, it must be prominent in the most popular form of media. The news made up 64.3% of the total coverage monitored; when analyzing the qualitative content of the news, it was found that stories were not published as press investigations that raise problems, search for their causes, or put forward solutions. Since water issue stories are not investigative or engaging, then currently the media does not have a pioneering role in community awareness, whether in presenting challenges or available solutions.

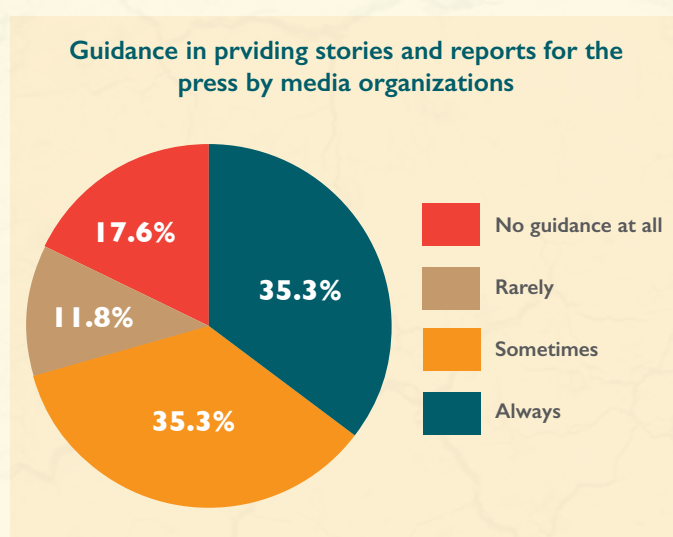
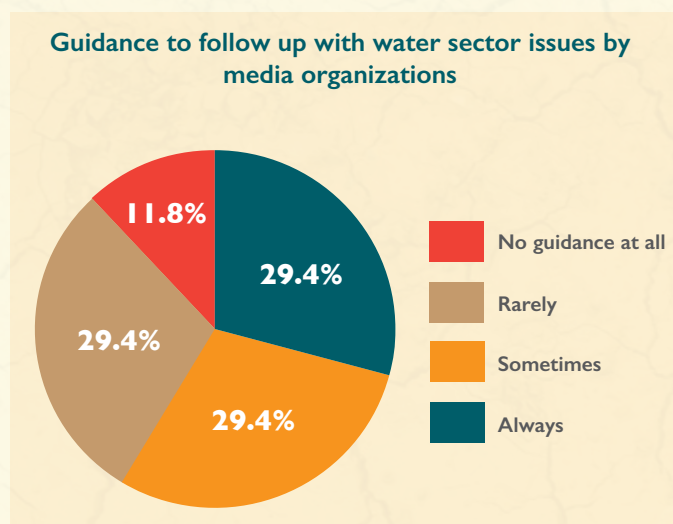
The study also found that awareness is the main gap and that it requires immediate action. It might be alarming when experts state that Jordan is the second most water-scarce country in the world, while the media failed to focus on its challenges and solutions. Experts believe that there may be quantitative information for coverage but it lacks qualitative analysis. Expert opinions confirm that journalists are not interested in the issues or details of water scarcity; therefore, water issues are present in the media but lack depth.

The issues are present in the agricultural sector, as the media content in the Arabic language related to agriculture is divided into two parts: informative and awareness-raising. Informative media is dense and does not contain information except when it is opened and announced, while the content of awareness-raising media is weak since it depends on the personal diligence within media institutions.

Since water issues are not profitable to media institutions, they do not take media priority. Websites have almost complete reluctance to publish news related to water except for accidents and events, since accidents and events allow news reporting without creating new content. There is also a lack of water-specialized journalists. In brief, the media aims to publish beneficial issues, and water, they believe, is not one of them.

Researchers found that there are no clear and specific policies to deal with the water sector in the media, despite the existence of policies related to other sectors such as the parliament, and others. The survey reveals that approximately 70% of media professionals do not receive a permanent directive to follow up on water issues (sometimes, rarely, at

all), and up to 89% stated that the editor does not ask them or order them to complete their stories and reports, which explains the weakness of the media coverage.



Third: Information Flow and Reliability

There is no conclusive agreement about the availability of information regarding the water sector and its challenges, but it is agreed upon that the government, such as ministries and institutions working in the water sector, have the most information in

regard to this issue, although this contradicts the opinions of some of the only experts in Jordan.

There are many ambiguous aspects about the importance of information for the media to be able to follow up on the water shortage issue. The main questions that occupied the study were:

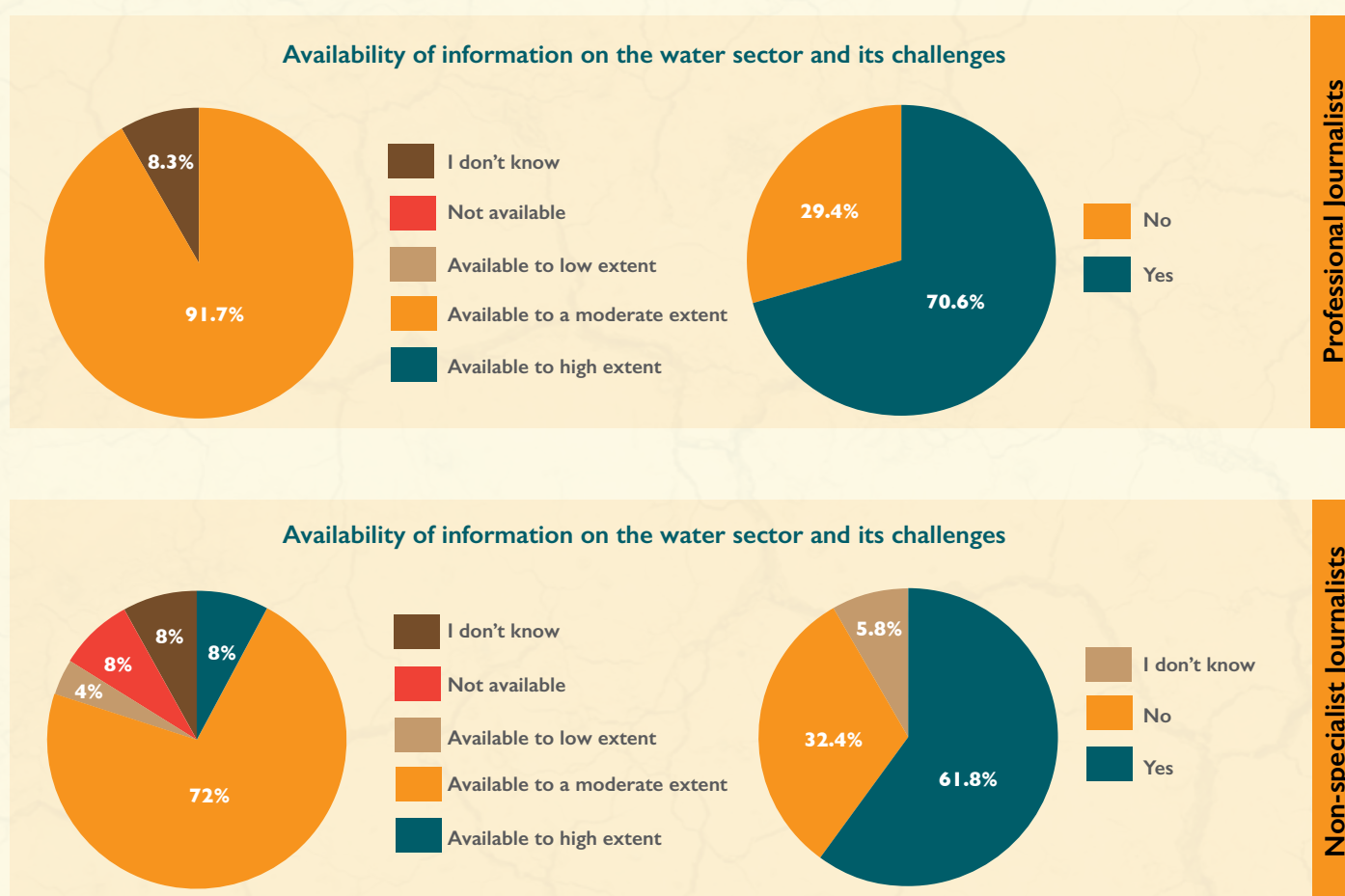
- Is the information obtained by the water sector regularly passed on to the media?
- Does it go beyond the ceremonial or informational form?
- What are the mechanisms that government agencies use to ensure the flow of information?
- Are the electronic sites for public institutions regularly updated and do they contain the information needed by media specialists who desire to write a report or lead an investigation that goes beyond news or following-up news?
- Do the official authorities issue periodic bulletins that include the latest information related to the new challenges in the water sector and the available solutions? If so, is the information presented to the media in a way that is understandable in order for them to reflect it in their reports, and to make their journalistic story interesting and acceptable to the audience or does it provide scientific information that is difficult to understand and only provide statistics without explanations?

It is certain that while information is the main key to maximizing interest in water issues, journalists face challenges in accessing it. This can be due to their low level of knowledge in dealing with information on water issues, the information's scarcity and ir-

regularity, or the information's basis in international reports. It may not reach them promptly or it is written in a language other than Arabic, in light of the known weakness of media professionals who do not master other languages, especially English.

Based on the answers of the opinion poll which specifically questioned professional journalists (who specialize and/or follow up on water issues), 70.6%

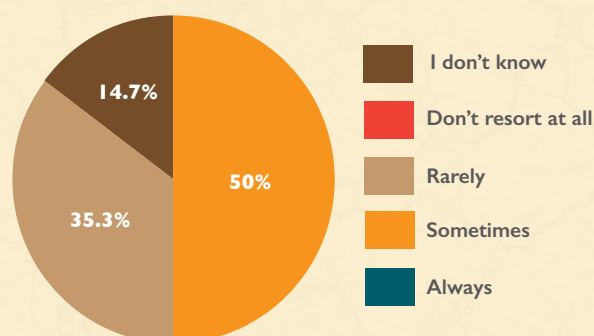
believe that information on the water sector is available, with 91.7% finding information to be available to a moderate extent, but none of them found it widely available. These numbers differ from the gauge by non-specialist journalists, with 61.8% expecting that information is available, and 72% stating that the information is available to a moderate extent. However, within non-specialist journalists, only 8% viewed information as widely available.



23% of specialist journalists have permanently resorted to the private sector to obtain information related to the water sector, while 58.8% of specialist journalists sometimes resort to the private sector and 11.8% rarely resort to the private sector. The percentage of non-specialist journalists resorting to the private sector to obtain information was lower,

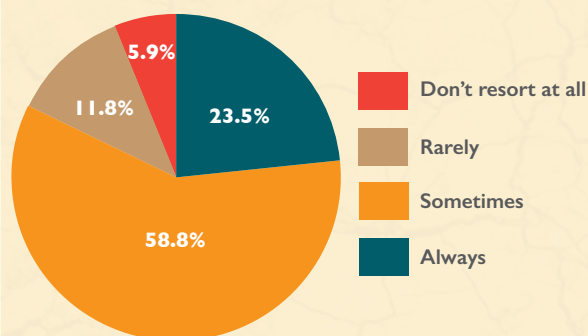
with only 14.7% of non-specialist journalists resorting to the private sector permanently, 50% sometimes resorting to the private sector, and 35.3% rarely resorting to the private sector.

Journalists resorting to private sector to obtain information about the water sector and its problems



Non-specialist Journalists

Journalists resorting to private sector to obtain information about the water sector and its problems

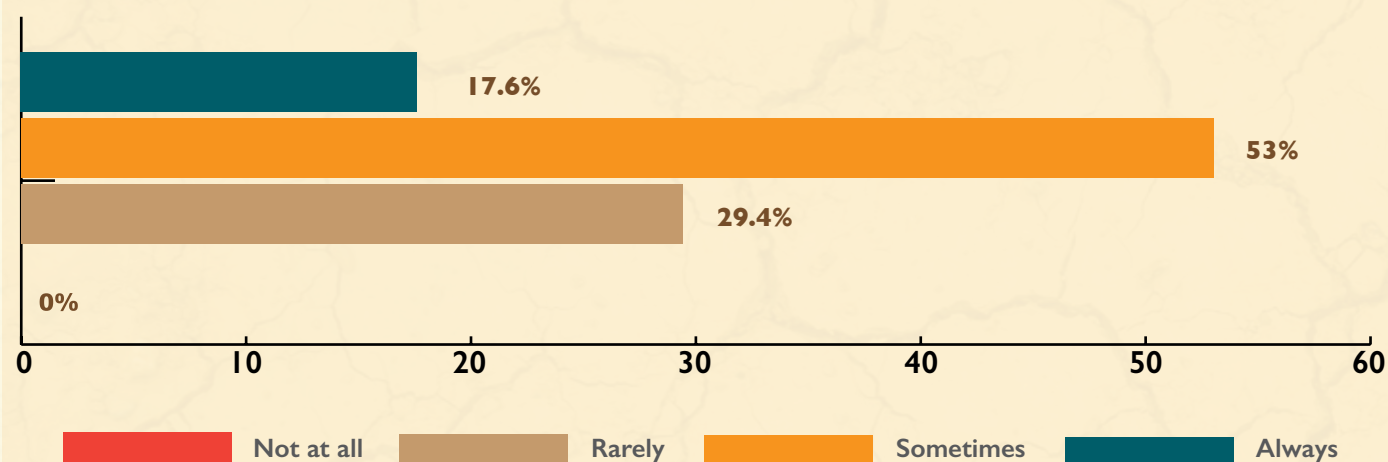


Professional Journalists

The survey showed that only 17.6% of specialized journalists resort to the private sector permanently

to obtain information about water-saving technologies in the agricultural and household sectors.

Does the private sector provide information on water-saving technologies and practices in the agricultural and household sectors?



In the media monitoring by this study, it is evident that media outlets depend mainly on public ministry/ governmental sources for their information; 61.7% of 488 total articles monitored used official sources. It is clear that the private sector has been absent in the information sources used by the media, private sources were only utilized fifteen times at a rate of 1.9%.

Researchers believe that media outlets facilitate access to information from public agencies and they do not make an effort to obtain information from other sources; therefore, information is monopolized by public authorities, which has caused this remarkable extent in their use as sources of media information. Multiple media outlets were found to be content with only publishing reports and statements of the public authorities in the sector. The researchers also

found that the use of ministers' statements was considered as plan C which accounted for 19.5% of all sources. Their lead in the scene indicates the centrality of information and its connection with the ministry's leaders.

The water sector is one of the sectors in which information is widely available through the ministry and its affiliated institutions. This information is found in the annual reports and strategic plans and is published periodically on the ministry's website. However, journalists find it difficult to obtain information about the water sector in light of what they call lack of contacts and connections. Therefore, while water sector information is sufficient and available, its quality is affected by the lack of plans or channels to properly deliver it. The study found that a number of experts blame journalists who do not search for information aside from official ministry sources.

Some former officials believe that the MWI is transparent and provides information to journalists objectively, and that it is the media's responsibility to communicate problems and challenges to people, and to build public opinion on some issues. The contrary opinion is that the available information and statistics are not unified neither identical, which creates confusion, and that the information's and its sources' output and interpretation by public ministries is insufficient.

Through the conducted interviews, the researchers concluded that despite the relatively large number of projects being implemented in the water sector, the media fails to discuss its impact, importance, extent of benefit to society and its role in solving problems related to the water and agricultural

sector. Instead, media coverage mainly consists of event coverage and project openings.

Fourth: Specialized Skills and Knowledge of Media Professionals

The study showed a clear need to empower journalists to regularly follow up with the water sector. Officials and experts agree, as well as the media professionals who acknowledge that their knowledge and skills need to be built and developed to understand specialized sector issues to communicate its impact in all segments of society.

Throughout the brainstorming sessions, the in-depth interviews, and monitoring press coverage, few names of media figures that have been following up on water issues for many years appeared and repeated, with most of them in written media. This showcases a media gap since electronic media is evident in Jordan; radio and television programming have had an increased presence and even social media platforms have become channels of information. With the exception of specific campaigns, the content on water issues lacks quality and no broadcasting of challenges and solutions; the common theme for media coverage on water issues is usually nothing more than complaints about water cuts.

Even through the study, there are no known reasons for the lack of interest in developing the capabilities of media professionals specializing in water issues. Researchers in the study were unable to reach the parties that have made a systematic effort in building the capacity for media in the water sector during previous years.

One explanation is that the MWI is the only body that trained specialized journalists, but the training received was not implemented in the actual world. Journalists do not recall when they were last trained and they have many notes on training workshops, which operated like lectures and seminars and was not beneficial for their work. Journalists specializing in water issues do not hesitate to talk about the need for new and lasting capabilities. Journalists need to know how to cover this sector and how to find solutions; they need a trainer or a higher authority to be their guide to grant them experience and help them utilize their skills in writing and communication to readers.

There is also the matter of the quality of training, how to build training programs, and knowledge of the implementing institution of the reality and needs of media, and its study of the public and the mechanisms for accessing it. Journalists previously received training only from civil society institutions. There were courses that focused on knowledge and others on skills, but they did not receive an integrated course that combined knowledge and skills. These trainings did not take into account the length of time journalists had specialized in their areas of interest nor did the trainings acknowledge the absence of tools for evaluating the journalistic content resulting from these courses.

Outside of Amman, the problem becomes more complex. Journalists are generally not specialists and will usually cover all sectors of the media. Water and its problems only sometimes fall on journalists'

agendas, and despite the importance of the water issue, there is no authority that follows it permanently.

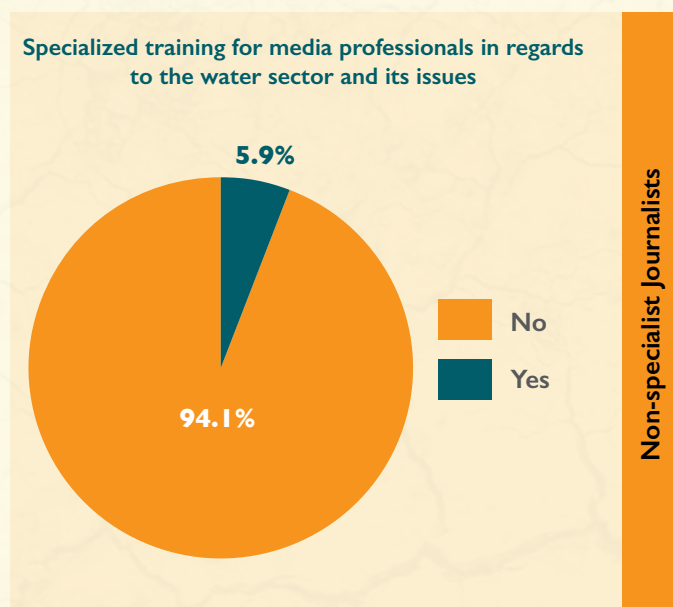
On the other hand, governorate journalists see that the government and their institutions also failed to train them. If training had occurred, it was deemed to be difficult to understand, and the content was not on par with the media's needs.

In addition, there is a lack of journalists specializing in water, environment and agricultural topics and current journalists lack knowledge of the scientific terminology that should be used. Activists on social media platforms believe it is necessary to encourage the presence of journalists on social media, since social media activists do not have the knowledge of water issues like journalists do.

Participants gathered in discussion sessions stated that journalists should be innovative and present water issues in an engaging way. Specific feedback for journalists was to use investigative journalistic tactics rather than the narrative style. The study confirms that a knowledge and intriguing media professional must deliver the message so that viewers will watch and trust the information. The current methods of journalists dealing with water issues is insufficient for both social and scientific purposes.

As for scientific investigative media in the agricultural sector, many press materials may contain errors due to journalists' lack of technical knowledge, which leads to the information not being

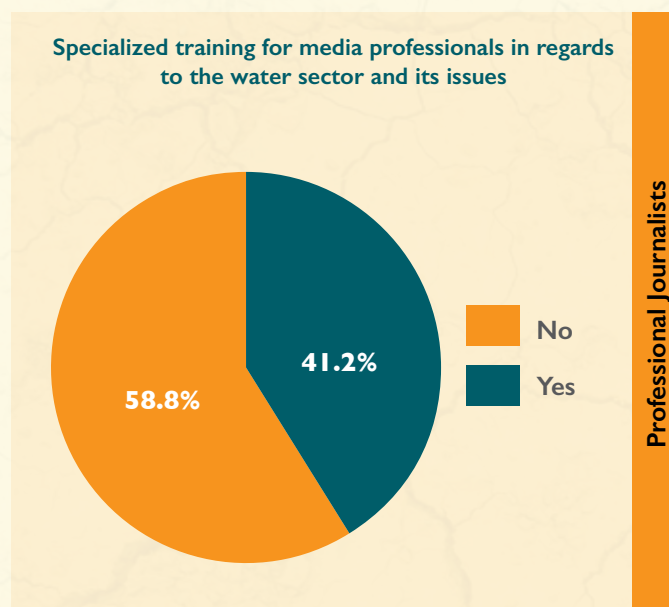
properly received. The interview participants believed it would be effective to train hydrological engineers and agricultural engineers in journalistic writing as they already possess scientific and technical information.



There have not been any follow-ups in training media professionals, and for this reason, 82.4% of specialist journalists confirm that they have not received training from the specialized entities in the water sector. This problem becomes even greater when it reaches non-specialist journalists with 97.1% reporting that they did not receive any related training in regards to this issue and it was never presented to them.

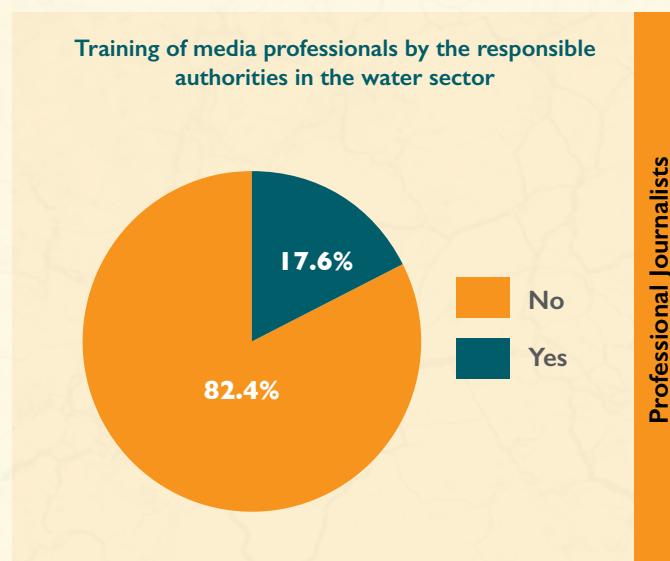
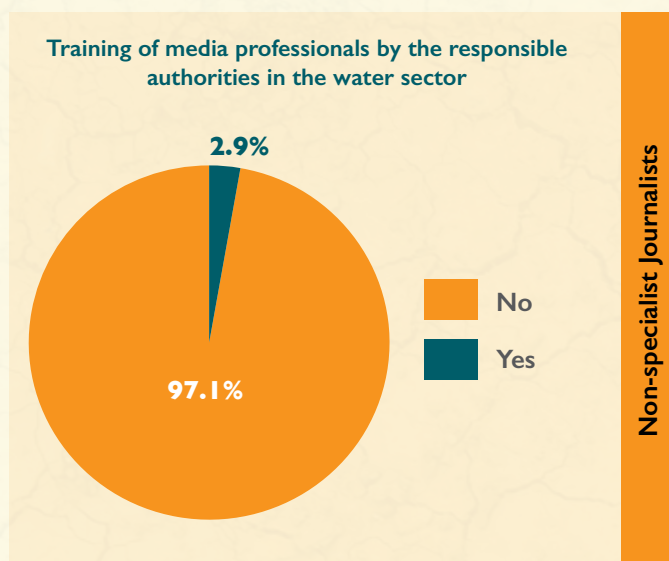
Raising the capabilities and knowledge of journalists in the water sector is part of the general crisis of professionalism in the media. Specialized training has not properly achieved its goals in linking training (skills and knowledge) to applied work under the

58.8% of specialist journalists and 94.1% of non-specialist journalists stated that they did not receive specialized training. This confirms the urgent need to enhance knowledge and skills in order to develop interest in water issues.



supervision of specialists to produce content that reflects what the trainees learned. Training must reconcile the gap between theory and practice, otherwise training will only be an unproductive event and a misallocation of resources.

In order for this to be achieved, media sector and water sector needs must be identified, a training curriculum must be derived from these needs, and selected trainers must provide knowledge and skills to build professional capacities that enable journalists to thrive in all forms of journalistic arts.



Fifth: Information and Communication in the Institutions of the Water Sector

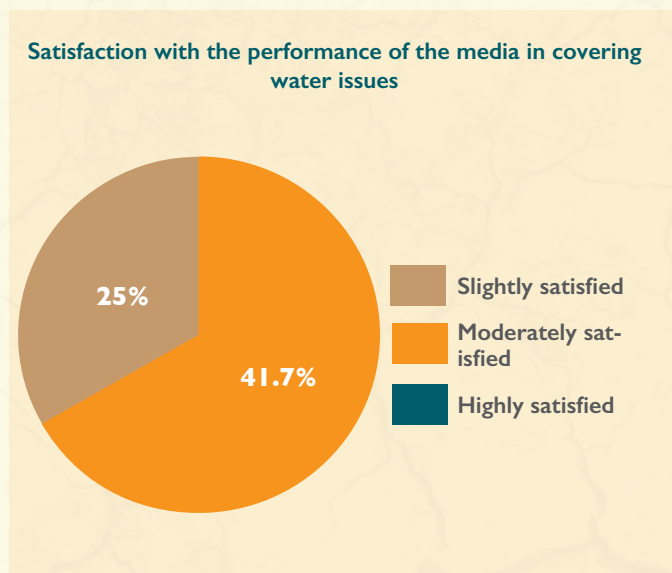
Almost all former officials in the MWI, as well as experts, agree that the ministry and the independent water institutions that operate under its authority maintain high credibility, with some former officials describing the ministry as one of the most credible. Those who were interviewed by the study believe that the information issued by the ministry and water sector institutions is sufficient, and they confirm that the ministry is the main source of information. Some of them may comment on the lack of media strategies that limit the delivery of information, while others see that the media policies adopted and their openness are influenced by the minister, the secretary general, or the leaders of the ministry. Some experts believe that the MWI is the main source of information as it is the product of its work, and they see that the Ministry's reports, website, and its media spokesperson are the most important sources of information. They emphasized that the ministry has a clear media structure and its approach to

awareness is sound, and that information is available and sufficient at the ministry and financing institutions, but the media is not looking for it.

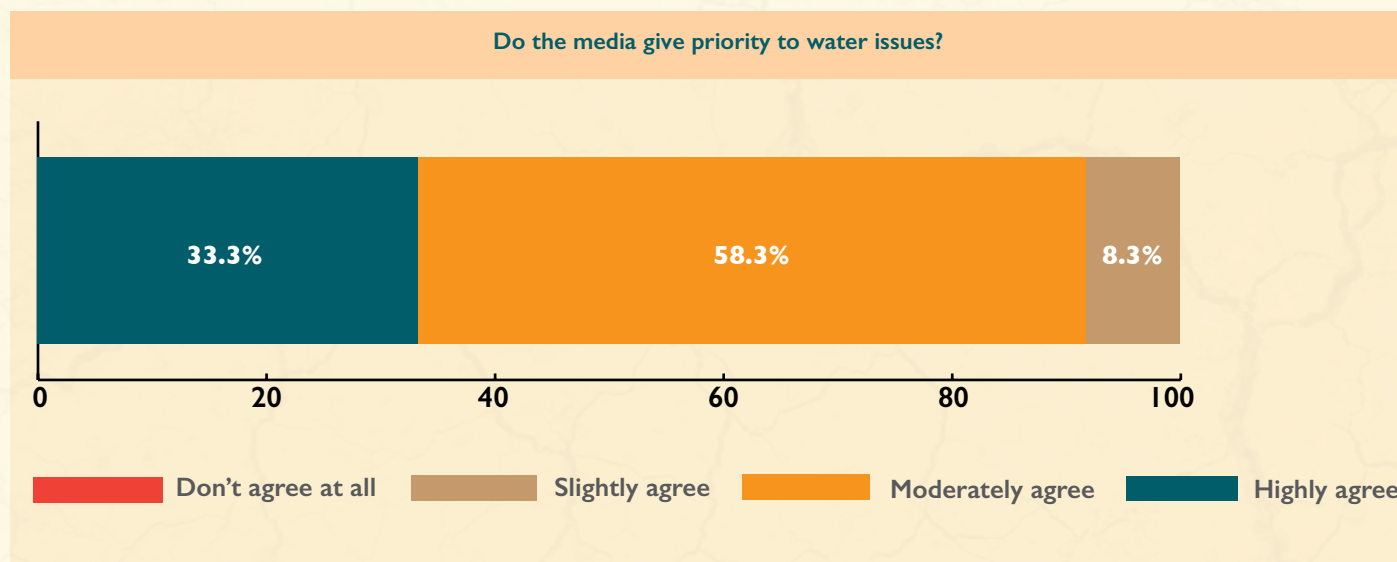
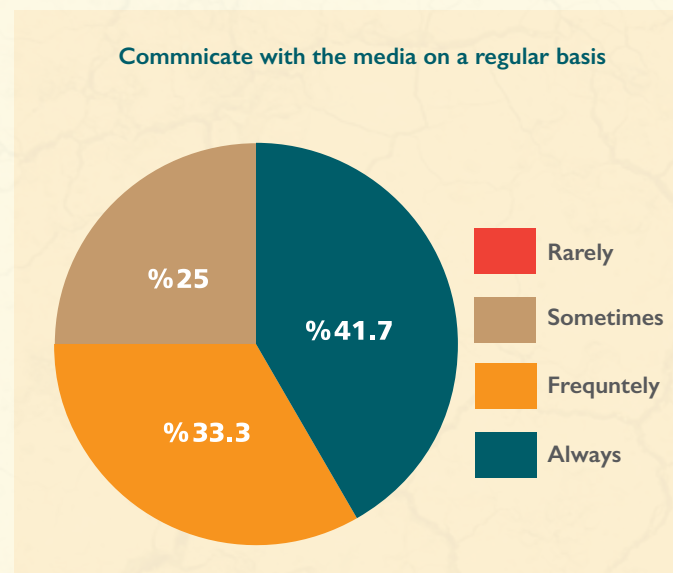
However, if this is the case of the water sector institutions, then there is still the issue of why water issues are not present and do not have priority in public information. Another issue is that there is no collective awareness that Jordan is very scarce in water resources, as seen in the behavior and practices of the general population.

Journalists interviewed for the study insist that the available information is not sufficient. The question remains of whether this is accurate or if they are simply shifting the responsibility to public sector authorities. The study also uncovered that journalists' knowledge and skills in specialized water issues are limited and do not constitute a lever for improving coverage of the water sector. This means that blaming the water sector is not objective and accurate even if there are weaknesses in the structure of media departments in the water sector.

In the survey of water sector workers, 41.7% of workers continuously deal with the media, 33.3% often, and 25% of them sometimes. 66.7% of survey participants expressed slight and moderate satisfaction with the media's coverage of water issues.



However, 8.3% of participants believe the media gives water issues priority to a low extent, while 58.3% of participants believe that the priority is to a moderate extent, 33.3% stated that water issues are given media priority to a high extent.



In water sector workers' opinions, the most important challenges facing the media in covering the water sector are: the poor knowledge and skills of journalists, with 33.3% of participants naming this

challenge; the lack of available information, with 25% of participants choosing this challenge; and the limited specialized training for media professionals, with another 25% of workers choosing this challenge.

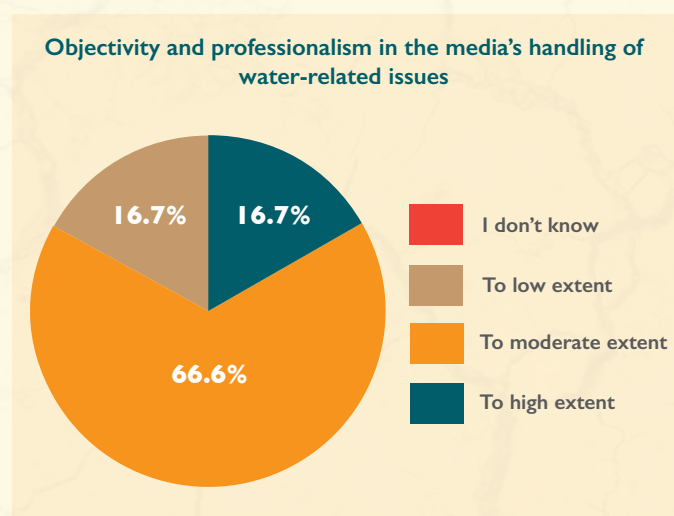
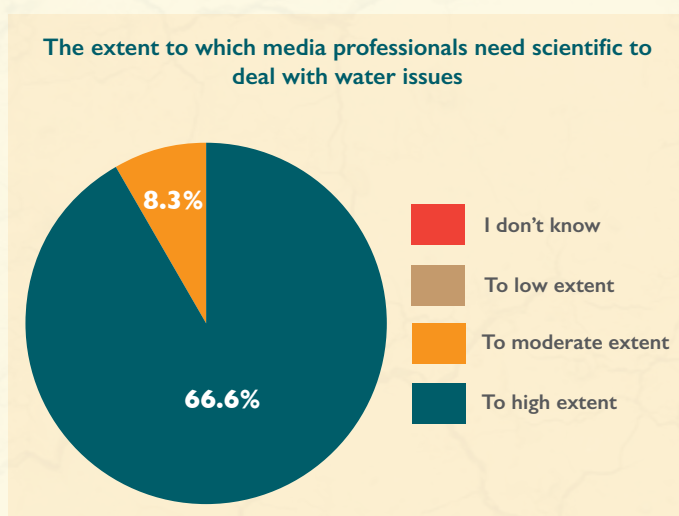
The next challenges were the institutional weaknesses of authorities, media's lack of interest on wa-

ter issues, and weakness of ministry media departments at 16.6%, 16.6%, and 8.3%, respectively.



66.6% of workers in the ministry and water institutions responded that the media is moderately objective and professional when dealing with water issues, 16.7% responded that media professionals are highly professional and objective, and another 16.7% responded that media professionals have a low level

of objectivity and professionalism in water issues. The most important thing in the poll is that 74.9% believe that media representatives need to develop their skills and scientific expertise when dealing with the water crisis to a moderate/high extent.



Sixth: The Private Sector and Water Crisis Coverage

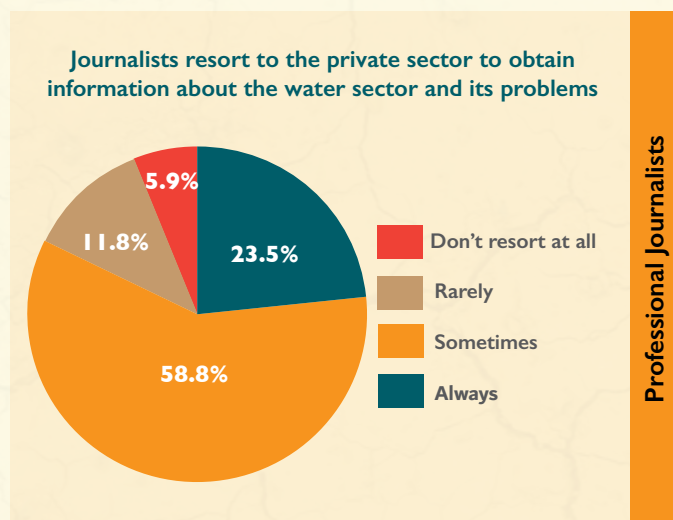
Despite the efforts made by the private sector in dealing with water challenges, whether in implementing projects or by introducing modern technologies to stop water waste, it is absent from the

media scene, as the government and institutions working in the water sector do not see the private sector as a partner who can play a role in improving the water situation in Jordan. On the rare occasion that the presence of the private sector in the media exists, it is always very limited. Journalists do not deal closely with companies that deal with the water

sector and they rarely resort to listening/highlighting private sector voices, opinions, or efforts.

While the private sector's role is expanding in the water sector, it is not showcased in the media scene, as it is rarely treated as a reliable source of information on water problems. Former officials summarize the role of the private sector as only media campaign implementation or technical guidance of projects.

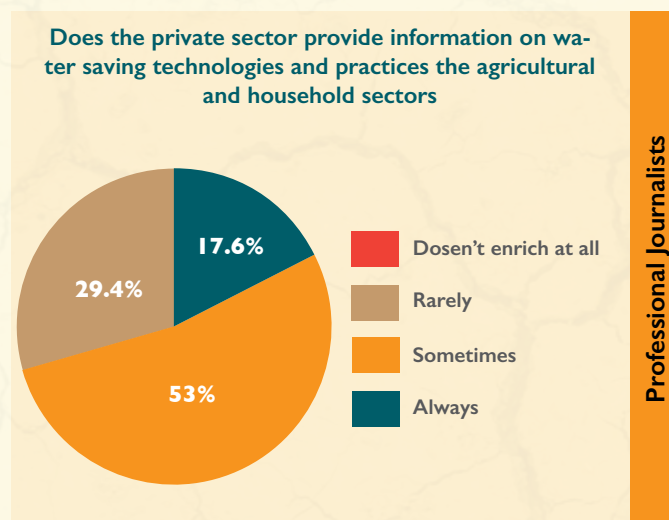
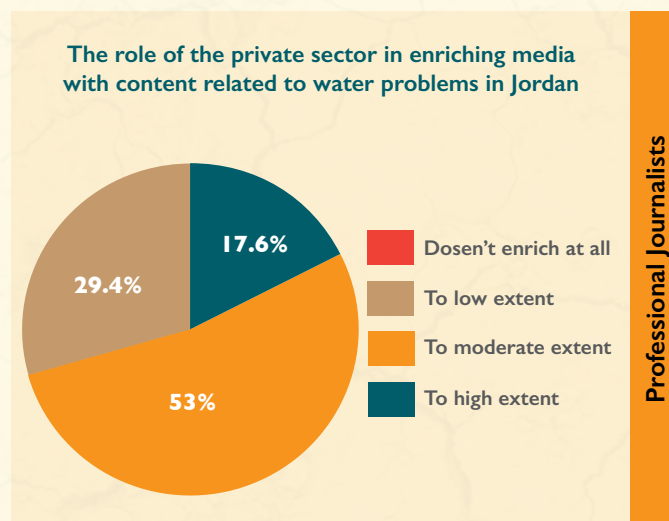
The survey sought to explore the limits of the role of the private sector, specifically with the media, so it was directly asked if people from the media resort to the private sector to obtain information related to water problems in Jordan. More than 58% of the specialized journalists confirmed that they resort to the private sector sometimes, and 23.5% of them always resort, and 11.8% rarely resort, and 5.9% don't resort at all.



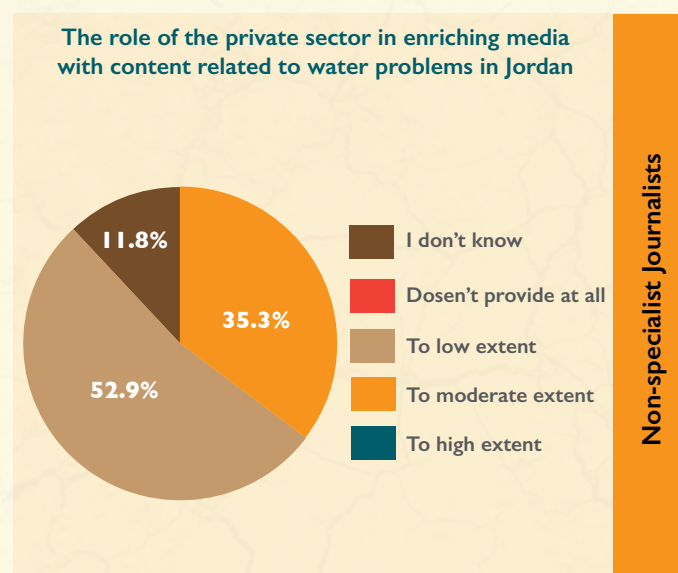
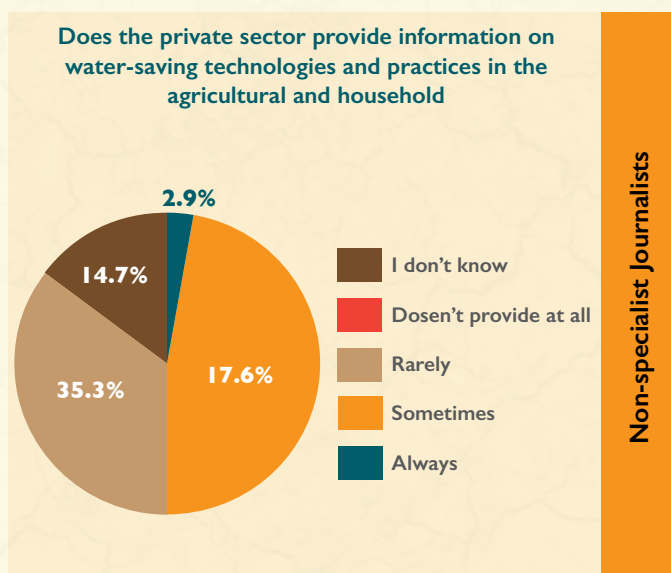
The second question focused on to what extent does the private sector working in water saving techniques in the agricultural and household sectors provide information to the press. The majority of journalists, 53%, found that this happens to a moderate extent, 29.4% assert that this is done to a low

extent, and 17.6% responded that it is done to a high extent.

The role of the private sector in enriching media content related to water came back with similar percentages to the previous question related to providing information, with 53% finding that it contributes to a moderate extent, 29.4% to a low extent, and 17.6% to a high extent.



When journalists in general (non-specialists) were asked the same questions about the role of the private sector, none of them believed that it provides information on a regular basis, 47.1% responded that information is provided sometimes, and 35.3% see it as rarely.

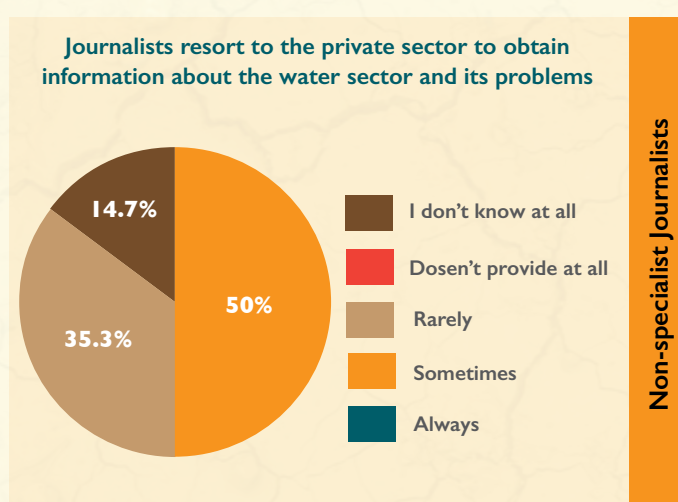


The question of whether the private sector enriched media content was repeated; no participants responded that the private sector enriched to a high extent, 52.9% found that the private sector enriched to a low extent, 35.3% believed media was enriched to a moderate extent. Out of all non-specialist journalists, 50% of them resort to the private sector to obtain information related to water issues sometimes, 35.3% rarely resort to it, and 14.7% could not identify the frequency of how often they resorted to the private sector.

Seventh: Social Media and Water Scarcity Issues

Social media has become the most present and used in people's lives, and it is the preferred method for communicating and expressing issues, as well as for exchanging information. Global statistics indicate that the number of Internet users in Jordan has reached about 8 million users, 6% of whom are from the younger generation who use it on a daily basis.²⁷ In Jordan, Facebook alone had reached 5.8 million users by the end of 2019.²⁸

Social media platforms do not highlight the challenges and issues of water shortage, but what was found were complaints from people about water cut-offs, a broken water line, or water theft. It is difficult to find abundant content that can contribute to community awareness; it is also not easy to find campaigns discussing the rationalization of water consumption or ways to reduce agricultural or household consumption.

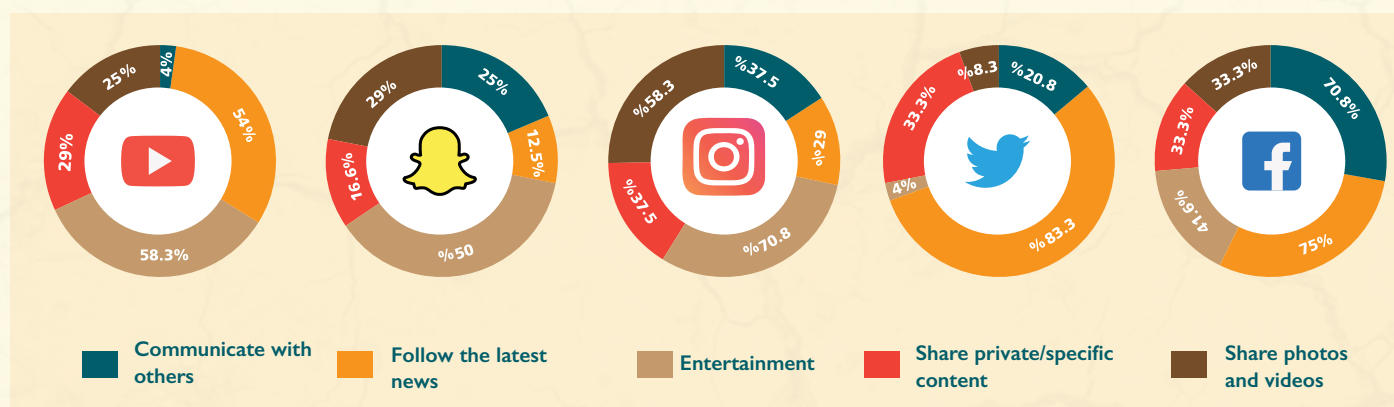


²⁷ Jordan Comes in First on Social Media Usage ,Usage,Al-Dustour newspaper. <https://bit.ly/2P4X2tT>

²⁸ One million Facebook users in Jordan,Al-Ghad newspaper. <https://bit.ly/2OYtC0H>

This absence or lack of mentioning water issues on social media platforms can be explained in relation to the MWI and its institutions. An important aspect of social media awareness is for the MWI and its affiliated institutions to have effective Facebook, Twitter, YouTube, Instagram platforms. If there are effective social media platforms, messages of water conservation created by specialized experts can be addressed to users. The study focuses on the existence of awareness and communication plans targeting these platforms and their audiences and if professional media outlets highlight water issues and keep water issues regularly updated on their social media platforms.

Due to content on water issues outside of social media already being poor, it is a natural result that the same level of quality is reflected in social media content. The journalists who specialize in water issues are already limited in number, which is why circulating what they write on their personal pages will not affect the enrichment of content on social media platforms, nor will it attract attention and discussion. However, social media influencers provide a presence that attracts the attention of millions; this strong presence can be used to motivate people to take part in raising awareness in regard to the water crisis to create supportive public opinion.

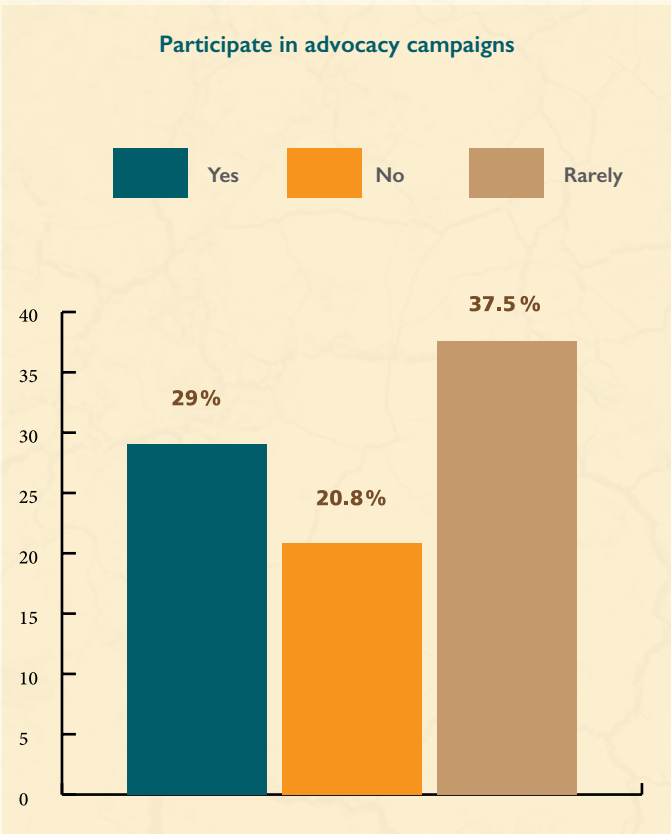
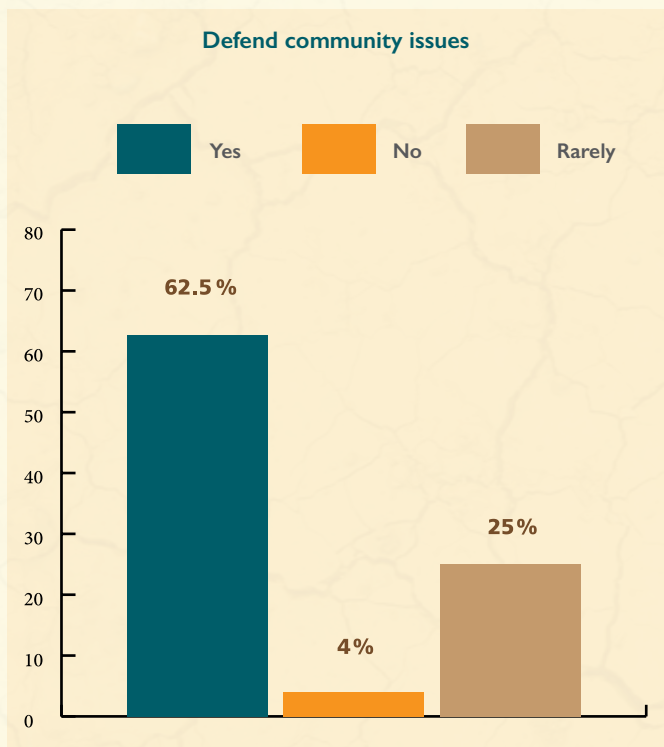
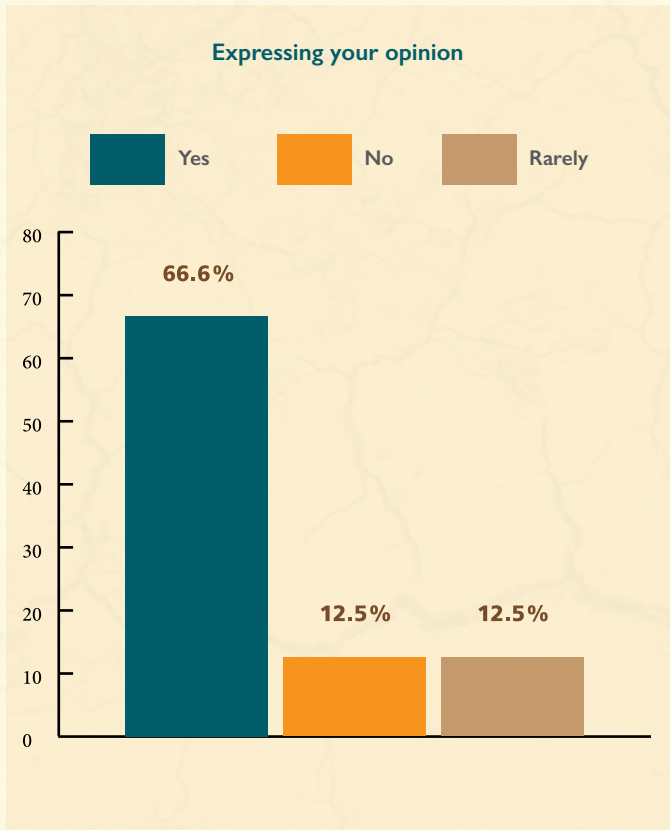


As for experts in the agricultural sector, they believe that it is necessary to work on diversifying media tools and invest in social media platforms to raise awareness and convey information through short videos and infographics, as well as recording interviews with experts and specialists to create interactive media content that seamlessly communicates awareness-raising information to farmers and other viewers. However, there was no information available on any previous efforts made, and it was not easy to track whether there were organized and

systematic campaigns that used social media platforms to highlight water challenges.

The survey that targeted a sample of social media activists confirms what was previously mentioned, as most of the respondents showed that the purpose of using social media sites is to follow the latest local and international news, especially on Facebook and Twitter, while approximately 33% responded that their usage was for sharing specific content/producing private content on Facebook, Twitter, and Instagram.

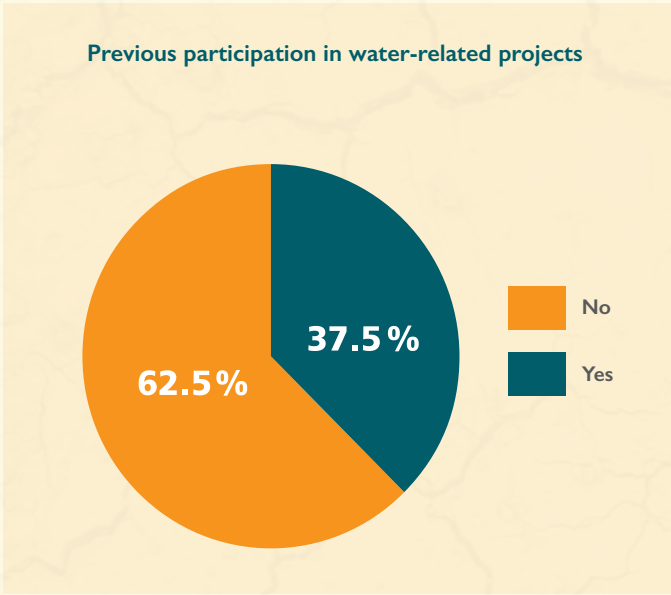
66.6% of respondents assert that they post private content on social networking sites for the purpose of using it to express their personal opinions, with 62.5% also responding that they also use social media to defend community issues.



The study emphasizes the importance of employing social media platforms to raise water issues. It is necessary to train employees of institutions working in the water sector to use social media to spread awareness-raising information and facts, and to document success stories and achievements in the water file.

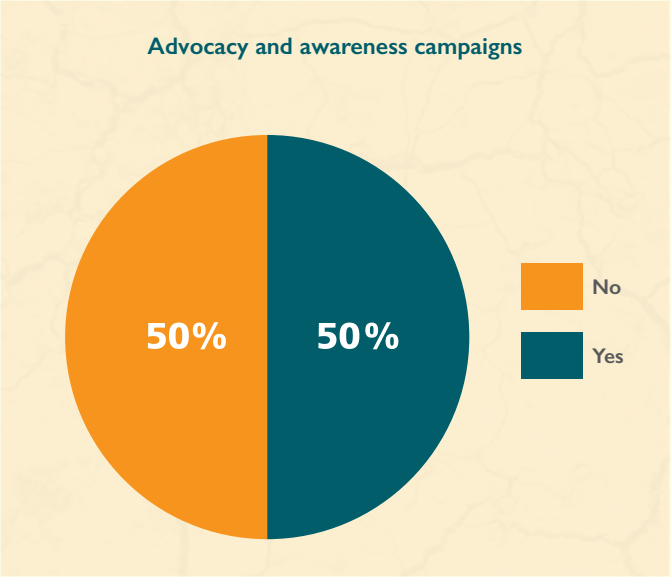
The interviews have shown that what is required for social media activists to support the promotion of water issues is to organize innovative campaigns and events, provided that they believe in this issue, in addition to their need for regular communication and engaging media content. An example of this is to organize a meet-up for the purpose of social innovations for the community to brainstorm ways to rationalize water consumption, whether in the household and community sectors or in the agricultural sector.

Thus, activists acknowledge that they need to know more about water issues, learn how to formulate topics in a more simplified manner and in a way that is clear and understandable to the public, and develop the knowledge and skills for other activists as well. In order for them to take interest in water shortage issues, in the survey it appears clearly that most of the respondents, 62.5%, have not previously participated in a water-related project. Respondents also stated that if they want to write about a topic related to water issues, the sources they would use to obtain information would be foreign studies and research, especially those issued by international organizations, with few of them mentioned official sources as their main source of information.

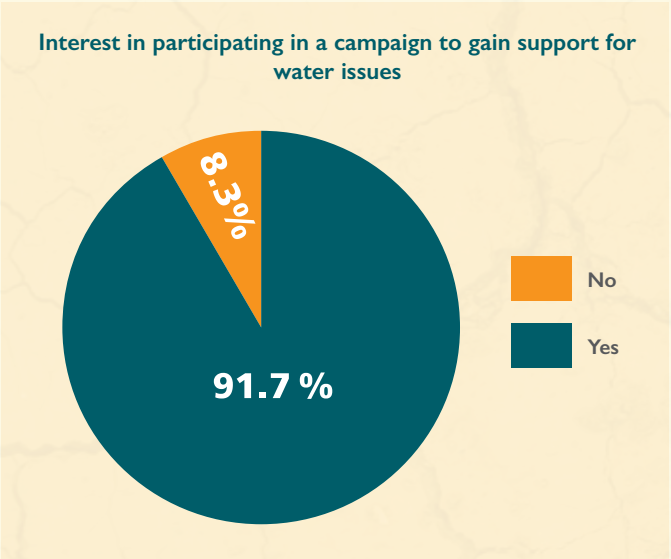


Some activists on social media platforms describe the social media presence of some institutions that are concerned with the water sector as deficient, and that the content in which water issues are raised is not suitable in most cases for social media platforms, while others call for encouraging media professionals to activate their presence on social media platforms, because activists may not have the

knowledge necessary to advocate on water issues, such as leading national campaigns or provide organized, permanent, and everyday efforts.



The majority of respondents, 91.7%, expressed their interest in participating in the campaign to gain support and to educate the agricultural sector and the household sector about the most important water-saving practices and technologies. When asked about the forms of participation that they can provide in the campaign, 59.1% of answered by writing a group of posts (publications) in addition to sharing information from experts and institutions working in the water sector.



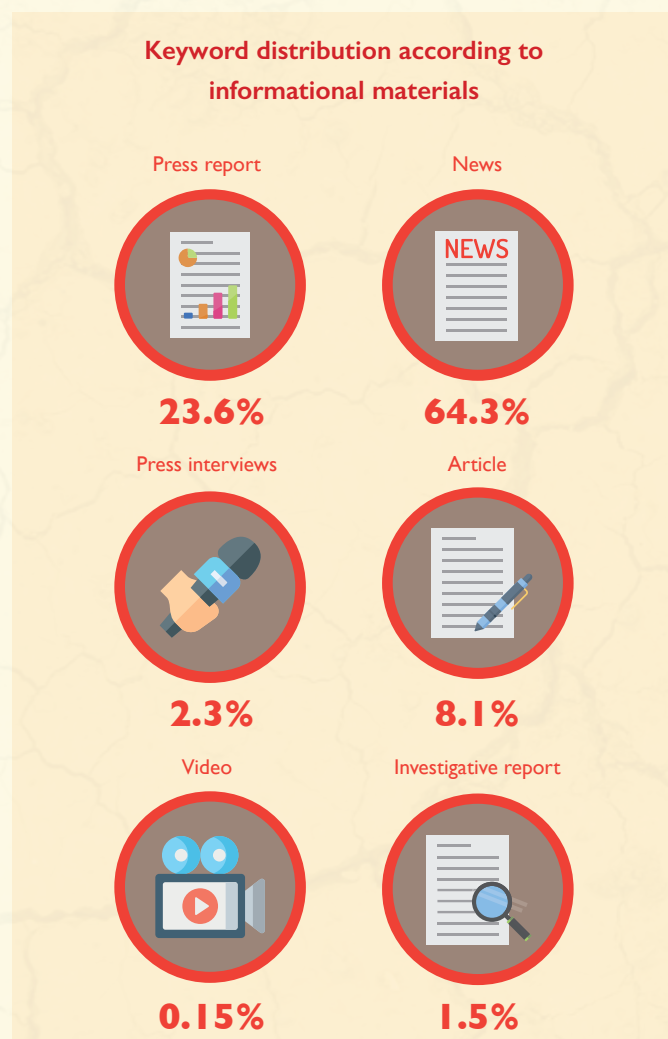
CHAPTER 2: MONITORING JORDANIAN MEDIA COVERAGE OF WATER SECTOR CHALLENGES AND PROBLEMS

The following is a presentation of the quantitative analysis and the content analysis of the monitored coverage in the media, as follows:

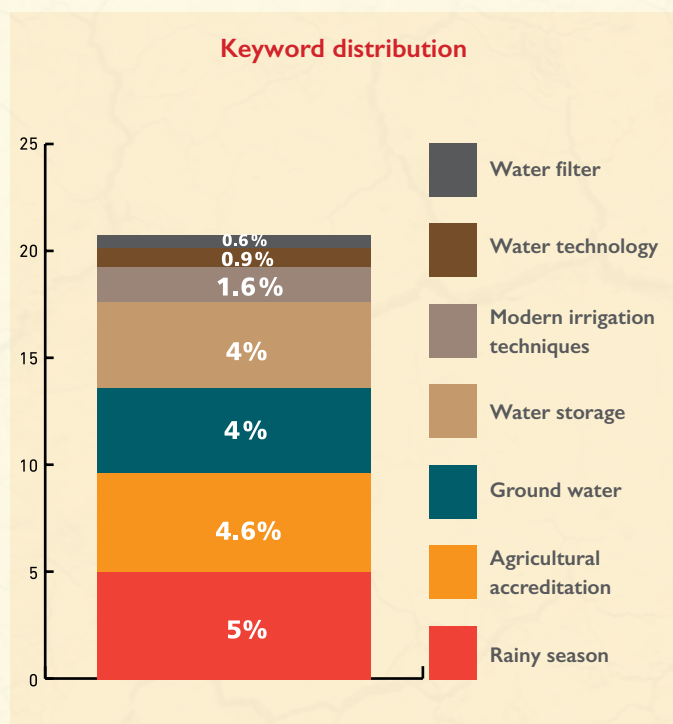
Quantitative Analysis

Researchers monitored a total of 661 media articles during the search for 34 terms, or “keywords,” related to the water sector and its problems and challenges in the Jordanian media. The press release was the most popular form of journalistic art that the Jordanian media adopted in presenting its coverage, as it reached 425 news reports with a rate of 64.3%. The press report came second with 156 reports, at a rate of 23.6%, while articles came third with 54, at 8.1%. This was followed by press interviews with a rate of 2.3% and 15 press interviews, followed by press investigations with 10 investigations at a rate of 1.5%, and finally videos, which was just a single video, at a rate of 0.15%. Researchers attribute the high percentage of news in the monitored coverage to the lack of skills and knowledge of journalists. The more skills the journalist acquires, the better material produced and the more capable a journalist is to present more than one opinion through it by relying on various sources and including more information based on studies and reports. In addition, the absence of specialized journalists in media outlets

forces them to content themselves with publishing news about activities and events or what the official authorities provide in terms of previously prepared data and news, and the media resorts to transferring the statements of exports and officials as they are, without checking to see their reliability and accuracy.



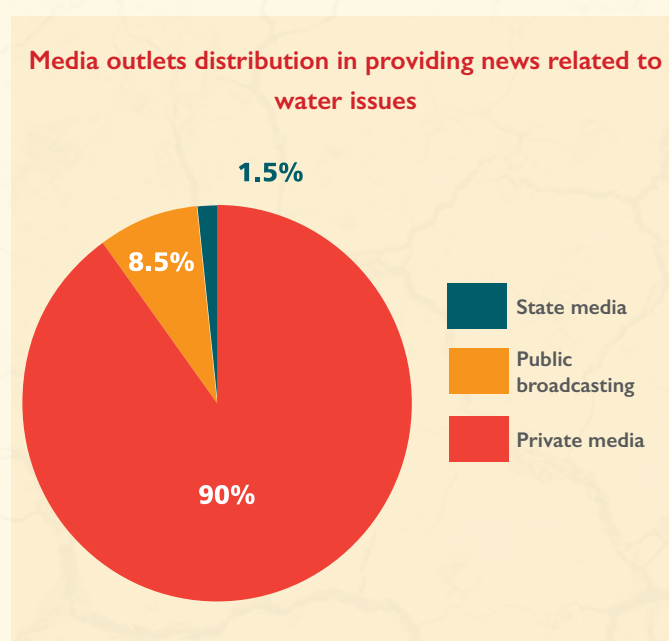
“Rainy season” was the most recorded keyword that was monitored by media materials searched for in the media, where 33 media items were monitored at a rate of 5%, while “agricultural credit corporation” came second with a number of 31 articles at a rate of 4.6%, and “groundwater” came third with 27 news articles, each of them at a rate of 4%. The keywords “modern irrigation techniques,” “water technology,” and “water filter” came with 11, 6, and 4 materials, respectively, at rates of 1.6%, 0.9% and 0.6%.



It is noticed that the most frequent keyword in the monitored material is “rainy season,” which is related to the winter season that receives seasonal attention from the media as an important event every year, but it does not go beyond mentioning the amount of rain, its rates, its percentage compared to previous years, and the amount of storage in dams. The keyword that came second is “agricultural accreditation,” as it is related to the economic situation of farmers, the loans provided by the gov-

ernment, and the losses to which the agricultural sector is exposed.

The private media dominated as the most popular media outlet for providing press materials related to the water sector, composing 598 out of 661 articles at a percentage of 90%, while public media outlets came second with a number of 56 articles, with a rate of 8.5%. Government media placed third at a rate of 1.5% with only 7 articles.

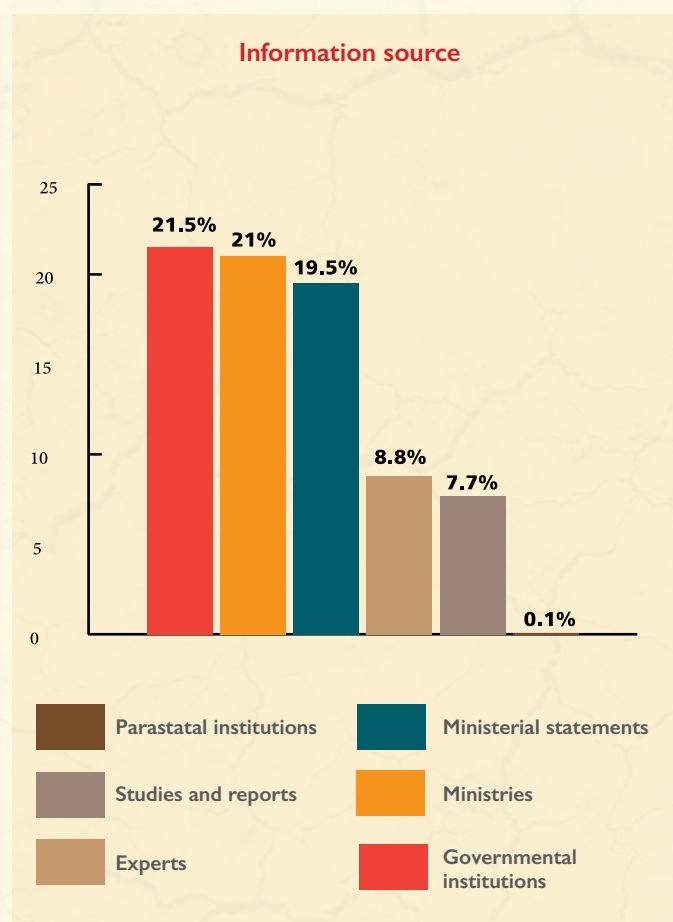


Private media took the lead for most of the media in which coverage was monitored and that is attributed to the fact that all websites are classified as private media, in addition to “Roya News” website and specialized sites such as “7iber” and “Areej”, with the exception of “Al-Mamlaka Channel” website and “Amman Net” website, which are both public information.

The sources of information used by the media showed that government institutions were sourced 170 times, at a rate of 21.5%, ministries came second by being sourced 164 times, at a rate of 21%, followed

by statements of ministers 154 times, with a rate of 19.5%. Experts ranked fourth with 70 sourcings, at a rate of 8.8%, followed by studies and reports with 61 times and a rate of 7.7%, and semi-government institutions ended the list of sources of information for the media, as it was sourced once, at a rate of 0.1%.

Researchers collected the results of each of the ministries, ministers, and government institutions to represent the “official entities,” which composed 61.7% of information sources. It was evident that the private sector was absent from the sources of information used by the media as it was only used 15 times, at a rate of 1.9%. The low level of usage was the same with sources of information from civil society as they were only used 20 times, at a rate of 2.5%.



The research team concluded that journalists’ had more ease to access to sources of information from official authorities and due to a lack of usage of other sources, official entities dominant as the main sources of information. This is coupled with the fact that multiple media outlets only published reports and data based only on information provided by authorities in the sector.

The researchers also found that the use of ministers’ statements that came third, making up 19.5% of the total sources, indicates the centralization of information, while the researchers believe that the use of experts as a source of information did not have an impact on the coverage, as it constituted only 8.8% of the total sources. It is noteworthy that the experts whom the media resorted to were former ministers and officials.

The researchers found that despite many projects funded by international organizations and institutions in various sectors related to water and agriculture, they were not a source of information for journalists, as they were only used as sources 23 times, at a rate of 3% of the total information sources used. Civil society institutions are also not considered a main source of information for the media in their coverage, as they only formed 2.5% of the total sources of monitored information, despite the fact that researchers found nearly 113 institutions whose field of work was water, agriculture or environment related in the directory of civil society organizations in Jordan prepared by the Phoenix Center for Economic and Social Studies.

Qualitative Analysis (Content)

Agriculture Sector

Despite the consensus that agriculture is one of the most important economic sectors, and the one most related to the water sector, the results of monitoring coverage in the Jordanian media of the term “agriculture” showed in only 13 press articles across 5 news articles at a rate of 38%, 4 reports at a rate of 30%, and two press interviews at a rate of 15%, in addition to one article and one investigation.

Four news articles were devoid of multiple sources and opinions and relied on information from the Ministry of Agriculture for statistics, statements of the minister, and denial data. As for the fifth news article, the sources of information included specialized experts who discussed agricultural problems in Jordan and the challenges it faces without offering any solutions to them. The news articles included a low amount of awareness, failing to emphasize the importance of agriculture in sustainable development, and its positive impact on the economy of the poor families that work in that sector.

The monitored reports also showed an effort made by journalists to diversify their sources and opinions. For example, Al-Ghad newspaper published two reports: one report focused on the neglect of the agricultural sector and attached it to a list of priorities, with the second report stating that successive governments have not approached the sector's needs and have been dealing with the issue theoretically. The 7iber website published a report on the causes of the deterioration of the agricultural sector, with the last report being published on J.R.N.N, a Jorda-

nian news website. The report was prepared by the editorial team, focusing on the setbacks of agriculture in Jordan. It is worth noting that despite the effort exerted in preparing reports, solutions were usually absent and were limited to mentioning the challenges, problems, and causes. Reports from institutions that have journalists specializing in the water, agriculture or the environment sectors, provided a higher quality of content than institutions that do not have specialized journalists. Al-Dustour Journal is the only news agency that published a press report on agriculture in Jordan, titled “Agriculture in Jordan, where to?”²⁹ which explained the issues and challenges being faced in the agriculture sector while also proposing solutions.

Water Sector

Twenty press articles were monitored searching for the term “water sector” in the coverage of the Jordanian media among various journalistic forms. The media focused on news coverage, as it published 15 news stories at a rate of 75%, while 4 reports were published at a rate of 20%, and one article whose percentage of total coverage reached 5%.

The Coronavirus (Covid-19) pandemic had a clear impact on media coverage of the term “water sector.” Ten media coverage articles dealt with the MWI's actions and its response to the pandemic. The coverage focused on the ministry's data on confronting the repercussions of the outbreak of the Coronavirus, while the media neglected to publish any awareness-raising instructions on rationalizing water consumption during the pandemic, especially since the demand for water had witnessed an

²⁹ Agriculture in Jordan, where to? (Al-Destur Newspaper). <https://bit.ly/32l65Jt>

increase, where the MWI announced that Jordan's scarce water conditions had been exacerbated by Covid-19, as demand for water for domestic uses increased to more than 40%, consequently leading to an increase in the wastewater that flows into the wastewater treatment plants as well.³⁰

Al-Ghad daily newspaper is the only media outlet that published two specialized reports discussing how the water sector is being affected by the Corona pandemic. The first report discussed the challenges that the pandemic imposed on the water sector in Jordan. The report mentioned that the pandemic had caused various strategic priorities to be suspended or postponed, naming the National Water Carrier Project as one of the most influential projects that would enhance water resources.³¹ The other report dealt with the Third Pole Regional Organization, which specializes in the water crisis in Asia. The report discussed about the impact of Corona on sustainable development related to the water sector under the title "The Impact of the Epidemic - Can We Save the Goal of Sustainable Development Related to Water and Sanitation?"³²

Water Scarcity

Fifteen media articles were monitored searching for the term "water scarcity" in the Jordanian media, and the coverage was divided into five news articles at a rate of 33.3%, and the same for reports, while four articles were monitored at a rate of 26.6%, and one interview amounted to 6.6% of the total media coverage.

Researchers found that all the information on the water scarcity crisis in Jordan and the challenges facing the water sector was simply being repeated without solutions except in one article titled "A Radical Solution to the Water Scarcity Issue in Jordan!"³³ The author of the article did not mention any scientific sources for his hypothesis, which is "the extraction of water from the air."

Among the most prominent of what was mentioned in the coverage are the statements of the former Minister of Water, Dr. Hazem Al-Nasser. Al-Nasser participated in a press interview, published on a website, in which he spoke about great challenges, especially the consequences of the regional crises that surround Jordan, most notably the Syrian crisis and the resulting heavy burdens, as well as the climate change in the region.³⁴

While Al-Dustour daily, in a news report about the "Shoman" symposium on the future of water in Jordan,³⁵ Dr. Munther Haddadin, former Minister of Water, touched on the statements of the international water expert and on Jordanian rights in shared water resources with Israel.

Unfortunately, the media coverage did not provide any instructions or advice to the public on rationalizing consumption and stopping water waste and its role in reducing water scarcity in Jordan, which is considered the most prominent challenges facing the reality of water in Jordan, and the media only presented problems and challenges with a clear absence of solutions.

³⁰ Increase in Water Demand by more than 40% Due to Corona pandemic (Al-Mamlaka Channel). <https://bit.ly/3fLDXZA>

³¹ Corona increases the concerns of the water sector on World Water Day (Al-Ghad newspaper).

³² Water sector: Global Corona puts sustainable development at risk (Al-Ghad newspaper). <https://bit.ly/2WmyWzC>

³³ A radical solution to the water problem in Jordan! (International Fact website). <https://bit.ly/3hQPI7P>

³⁴ Jordan. Stifling water crisis. Second most water-scarce country in the world (Almadenah News). <https://bit.ly/3dBc3OA>

³⁵ Haddadin states causes of water shortage crisis in Jordan and how to face it (Al-Dustur Magazine). <https://bit.ly/3l44ih2>

Rainy Season

Researchers monitored the highest number of coverage and press material by searching for the term “rainy season” in the Jordanian media, as they monitored 33 press articles across 28 news stories at a rate of 85%, 3 reports at a rate of 9%, and two television interviews at a rate of 6%.

The sources of the monitored press materials did not vary much, as the only source of information for 25 press materials were official institutions such as the Meteorological Department, the Minister of Water, officials in the ministries of water or agriculture, and 4 articles were sourced from the private sector represented by Arabia Weather website, two articles were sourced from farmers, and one was from a former water minister, while the sources varied in one report.

The report on the 7iber website³⁶ titled “Heavy Rains and Scarce Water: Can Jordan Benefit from the Rainy Season?” had varied sources. The report was based on official sources, which were the reports of the MWI, its official spokesperson, the director of Jordan Valley, and the forecast manager in the Department of Meteorology, two experts, and a study conducted by the German Federal Institute for Geosciences and Natural Resources (BGR). The report shed light on the problem of water scarcity, lack of utilization of rainwater and the efficiency of dams in Jordan, and presented solutions to problems related to the issues it discussed.

It is evident that the media does not discuss water related issues nor do they convey the details of

the state of the water sector and its challenges. The analysis of news materials and official sources confirms this, except in a few cases, such as the 7iber report mentioned above.

Groundwater

By searching for the term “groundwater” in the media coverage, we monitored a total of 27 articles that were divided across 23 reports, at a rate of 85%, and 4 news reports by 15%.

It is noteworthy that the high percentage of reports in the monitored materials did not add new or varied information, either in their sources or their content. Out of 23 reports, 20 of them with a rate of 87%, had many repetitions and included the same information based on an international study prepared by the BGR, in addition to the statements of the Minister of Water and Irrigation related to the study itself, which dealt with the danger of groundwater depletion in Jordan.

While the remaining three reports dealt with the same problems and challenges, they were also based on official sources, and the third report³⁷ focused on water sources in Jordan without indicating the source of the information contained therein.

It is necessary to note that all sources of information in the monitored media coverage, whether news or reports, relied on official sources, such as the Minister of Water, the Secretary-General, or the official spokesperson of the ministry, except in a news published in Al-Ra'i daily newspaper the source of which was the University of Jordan,³⁸ and the report

³⁶ Heavy rain and scarce water: Can Jordan benefit from the rainy season? (7iber website). <https://bit.ly/2YU9Jwf>

³⁷ The Kingdom's Water Resources (Al-Ghad Newspaper). <https://bit.ly/3cl7BmN>

³⁸ Groundwater recharge project along the Zarqa River- Al-Rai Newspaper. <https://bit.ly/2WQbnhh>

that was previously mentioned with anonymous information. This phenomenon indicates that media institutions rely mainly on information issued by official government-affiliated agencies, while neglecting to search for the information and from a variety of sources, leading to the incomplete information provided to the public on the sector's problems and challenges.

Water Technologies

The total media coverage of the term “water technologies” reached 6 press articles, which were divided into two news items at a rate of 33.3%, two reports at a rate of 33.3%, and one article and one investigation at a rate of 16.6%.

The researchers found that the two news stories were present in two websites, one of them about the construction of desalination plants,³⁹ and the other about the repeated attacks on water sources.⁴⁰ The report published in Al-Ghad daily newspaper,⁴¹ issued by the International Water Association (IWA) in English, entitled “In Vitro Bioassays: Current Status and Future Application for Water Management,” focused on protecting water resources from chemical pollution due to urban expansion and social and technological development. Al-Ra'i newspaper, in its report entitled “Phobia of ‘Water Shortage’ and ‘Corona’ Exacerbating the Crisis,”⁴² touched on the water supply during the period of the Corona pandemic and the lockdown that accompanied it, and citizens' fears of water shortages.

³⁹ The present and future of water in Jordan is in danger! (Alwakeel news website). <https://bit.ly/2NheVVO>

⁴⁰ The Minister of Water warns of the danger of the continuation of the series of repeated attacks on Water sources (Al-Maqar website). <https://bit.ly/3dlxtPh>

⁴¹ International report: Water is the ultimate and most important challenge for the world's vital systems (Al-Ghad newspaper). <https://bit.ly/3137sSm>

As for the only press article published, it dealt with the purity of drinking water and the use of technology in examining it. The investigation published by Arab Reporters for Investigative Journalism (ARIJ) under the title “Amman Net Exposes the Practices of Water Filters”⁴³ dealt with the deception by water filter companies to promote their goods.

Looking at the content of the monitored materials, the researchers found that they had neither a quantitative nor a qualitative effect on water technologies, as the materials did not raise public awareness except on a small scale mentioned in the ARIJ investigation about deceptive water filter companies. However, public awareness and guidance on matters related to the use of technology to save water and reduce its waste (such as using cuts to rationalize consumption for the household sector or the use of technology in irrigation methods for farmers) was completely unmentioned in any of the coverage. The media did not provide any new information of benefit and impact to the public other than the issue of water scarcity and attacks on water sources, while intentionally or unintentionally omitting any solutions to these aforementioned problems.

Modern Irrigation Technologies

The percentage of news in the media coverage that included the term “modern irrigation technologies” reached 100%, with 11 articles. Researchers did not record any other form of journalistic art during monitoring, as the news discussed modern irrigation technology projects supported by international

⁴² Phobia of “water shortage” and “Corona” exacerbating the crisis- Al-R'ai newspaper. <https://bit.ly/2NgQebO>

⁴³ Amman Net exposes the practices of the water filters companies (ARIJ). <https://bit.ly/2NikJhv>

organizations, and modern irrigation methods that will work to save water consumption.

The researchers noted that the news included many terms specialized in the water and agricultural sector, such as: hydroponics, salt water and drippers for irrigation, saline-tolerant crops, field schools, cocoon technology, drip irrigation fertilization. The researchers found later on that these terms were defined and explained in press materials, and the researchers attribute this to the fact that the sources of information were specialized official bodies such as the National Center for Agricultural Research, experts, or academics.

It is worth mentioning that the materials monitored in “modern irrigation techniques” best addressed water problems and challenges related to irrigation, and the offered the most solutions and awareness to farmers out of all the other keyword monitoring. The Al-Mamlaka Channel’s website published a news report entitled “The Spread of Hydroponics Enhances the Rationalization of Jordan’s Water,”⁴⁴ in which it emphasizes that the spread of hydroponics will reduce the annual amount of water that is necessary to be allocated to agriculture. Al-Ra’i newspaper published a news item entitled, “Two Jordanian and American Agricultural Engineers Reveal Effective Ways to Increase the Efficiency of Drip Irrigation.”⁴⁵

All the materials monitored relied on official sources, experts, academics, studies, and reports. The monitored materials achieved a diversity of sources, except for one news article published by the Zad news site⁴⁶ which included anonymous information.

Water Wells Violations

Researchers monitored 22 press articles by searching for “water well violations” in media coverage, and they were divided into 21 news items, with a rate of 95%, and one report with a rate of 5%.

In an interview with researchers, the former Minister of Water, Dr. Hazem Al-Nasser, posited that water well violations are one of the most prominent challenges facing the water sector in Jordan. and that the media should assume a role in educating the public of the risks of water well violations to water security.

However, only one report was published in Al-Dustur Journal under the title: “Violating Wells Drain Twice the Safe Limit.” The news focused on the violating wells and sales of water in Wadi Al-Seer. The news, which was distributed over several years, included the same awareness message used by the MWI/Water Authority, as websites published the same news reports for two different years.

By looking into the coverage of the media outlets, the researchers found that they did not include awareness messages or focused instructions that had an impact on the public; news articles only covered the raid and filling of the violating wells in various regions of the Kingdom. The media did not offer any solutions to this problem and the sources of information did not vary in the coverage of media outlets. The news articles relied entirely on official sources, except for one news report published by the Carnegie International Peace Center’s website,

⁴⁴ The spread of hydroponics enhances the rationalization of Jordan’s water (Al-Mamlaka Channel). <https://bit.ly/2Yj9pbj>

⁴⁵ Two Jordanian and American agricultural engineers reveal effective ways to increase the efficiency of drip irrigation. <https://bit.ly/3fLd3k4>

⁴⁶ The latest hydroponic technology by smart valve technology and Aquatic yield theory (Zad Jordan News Agency). <https://bit.ly/2VjZss7>

in which it stated, “The Jordanian government is reluctant to close the violating wells.”⁴⁷ Researchers have not been able to monitor any follow-ups, press investigations, seeking assistance from experts’ opinion, or even the official response to the report carried out by the media about what is mentioned in the Carnegie report.

Water Consumption Rationalization

The results of monitoring the Jordanian media coverage of the term “water consumption rationalization” showed the percentage of news in the monitored media coverage reached 66.6% out of 10 news reports, while the percentage of reports from the media coverage reached 20% with three reports, while two articles were monitored at 13.3% of the total monitored coverage which is 15 press articles. The coverage dealt with the events and courses organized to raise awareness and rationalize consumption in various regions of the Kingdom, and the coverage was presented in a news format without any significant depth.

The researchers noted that the monitored press materials did not mention any guidance to the public except in two reports. One of the reports provided instructions and was published on Al-Mamlaka Channel website,⁴⁸ although the information and guidance contained therein were anonymous. The second report was published in Al-Ra’i newspaper⁴⁹ and dealt with valuable instructions to provide and rationalize water consumption. Although some of the information contained therein was attributed to experts without mentioning or referring to them.

The media highlighting the role of experts did not have a tangible effect in raising awareness and disseminating the culture of water consumption rationalization through writing articles, especially since the media published only two articles only. One article dealt with the water crisis in Jordan in general, and included guidance in only one paragraph,⁵⁰ while the other article dealt with the importance of rationalizing water consumption in tourist and hotel establishments as a national duty.⁵¹

Water Bills

Researchers monitored 24 press articles within media coverage that included the term “water bills.” From the total coverage, 22 news items comprised a rate of 92% with one report accounting for 4% and one article reaching the same rate of 4%. Monitored news dealt with the mechanism of calculating bills and data by government institutions. Only one report dealt with the issue of citizens’ complaints about the variation in the values of bills in 5 governorates, and the article⁵² written by a water expert touched on the actual cost of delivering water to homes.

Looking at the monitored press materials, the researchers found that they were completely devoid of awareness of the need to rationalize consumption and to stop the waste of water. This was reflected in an increase in the value of water bills, which causes economic burdens on citizens, and thus all the media coverage monitored relied on official sources, such as the MWI, the Water Authority and the Water Company. Multiplicity of sources was not

⁴⁷ Report: The Jordanian government is reluctant to close the violating wells (Gerasa site). <https://bit.ly/36T5Z1R>

⁴⁸ Awareness campaigns to rationalize water consumption in Jordan (Al-Mamlaka Channel). <https://bit.ly/37yQSuA>

⁴⁹ Water Conservation- Al-R’ai Newspaper. <https://bit.ly/2zBdpdP>

⁵⁰ Water crisis ... in Jordan (the Gerasa site). <https://bit.ly/2CcV8o3>

⁵¹ Rationalizing water consumption in tourist and hotel establishments is a national duty (Ammon News Site). <https://bit.ly/2YGObD5>

⁵² Water bills (Ammon news website). <https://bit.ly/3ehlB0z>

taken into account nor were there follow-ups or press investigations regarding the discrepancy in the values of the water bill despite the citizens' constant and continuous complaints about this problem.

Water Pollution

Researchers monitored 21 press articles in search for the term “water pollution” in media coverage, and news coverage totaled 14 news reports with a rate of 66.6%, 3 reports with a rate of 14%, and four articles with a rate of 19%.

Researchers believe that the news coverage focused on cases of contamination of drinking water in some areas, dams, or the publication of official institutions' data for information that talks about contamination of some water sources and denies others. It is noteworthy that the issue of water pollution in the Jordanian quota coming from Israel has gained attention, even if in a small way, where former Parliament Member Jamil Al-Nimri wrote an article in Al-Ghad newspaper titled “From Polluted Sewage Water to Factory Wastewater... Is This Our Share with Israel?!⁵³” and the author of another article touched on the incident of Mansheya⁵⁴ water pollution in 2007.

As for the reports, one of them dealt with the ongoing pollution of Al-Zarqa's torrent water and the causes and misconceptions that led to reaching this level of pollution. The report was based on experts and academics in the water sector, and researchers found a diverse set of sources, such as a media survey of information and published articles highlighting water pollution and its danger.

The researchers attribute this diversity due to the issues related to water pollution, whether inside Jordan or water coming from Israel. Therefore, it is receiving the attention of the media, as it constitutes public opinion, and this is confirmed by the expert in the water sector and the former Secretary General of the MWI, Dr. Dureid Mahasneh. In an interview with researchers, Mahasneh stated that the media would only prioritize water issues when it becomes a concern for public opinion. In another interview with researchers, Professor Dana Al-Suyyagh, CEO of Al-Mamlaka Channel, agreed with Mahasneh's characterization.

Disi Water

By searching for the term “Disi water” in media coverage, a total of 22 press articles were monitored which were divided into 11 news reports with a rate of 50%, 7 reports with a rate of 32%, 3 articles with a rate of 13.5%, and one investigation with a rate of 4.5%.

Disi water is considered the most important source of non-renewable groundwater in Jordan and is the best for drinking purposes. It is a shared basin between Jordan and Saudi Arabia. Given its importance, researchers note that the monitored media coverage related to Disi water had acceptable diversity, as news coverage only composed 50% of the total coverage monitored, which is the lowest news rate after groundwater.

However, this diversity and increase in coverage that took a form other than news did not deal with “Disi water” as a strategic project. Rather, it dealt with issues of attacks, information about radioactive contamination, and its suitability for drinking.

⁵³ From polluted sewage water to factory wastewater... Is this our share with Israel?! (Al-Ghad newspaper). <https://bit.ly/3ejta8b>

⁵⁴ Manshiyya water pollution between official and social responsibility (Ammon website News). <https://bit.ly/2ALw4UW>

Conflicting information between experts and official institutions about the contamination of Disi water and its cleanliness did not push media institutions to carry out investigations to clarify the case, but only conveyed the opinion of experts and the statements of official institutions related to this matter. An electronic website published a report that included the opinion of an expert in water, in which he said that “Disi water is contaminated with radioactive radium,”⁵⁵ while the director of the Disi project stated in a news article published in Al-Rai daily newspaper “that the basin water surpasses in terms of international standards the characteristics of the waters of developed countries such as Australia, where the percentage of radiation in the water basin is 0.4%, and in Australia 0.5%.”⁵⁶

In the absence of extensive reports or investigations of media coverage of newspapers and websites, and also television channels, the specialized website 7iber published an extensive report by the environmental expert, Bater Wordom, titled “Do We Drink Disi Water?”⁵⁷ while the ARIJ website published an investigation under the title “Exacerbation of Water Crisis in Jordan.. Disi Provides Temporary Solution.”⁵⁸

Drinking Water

The results of the search for the term “drinking water” in media coverage revealed the monitoring of 23 press articles, of which 15 news reports with a rate of 65%, 5 reports with a rate of 22%, two articles with a rate of 9%, and one journalistic investigation with a rate of 4%.

⁵⁶ “Water”: The quality of Disi water exceeds international standards- Al-R'ai Newspaper. <https://bit.ly/316zko1>

⁵⁷ Do we drink Disi water? (7iber site). <https://bit.ly/3hHcJVo>

Looking at the content of the coverage monitored, the researchers found that one news report was repeated seven times with a rate of 46.6% of the total news in different media outlets with the same title, content and date of publication. The report was used because of its inclusion of the statement by the MWI that “the quality of drinking water in Jordan is first in the Arab world,” though no media outlets asked any expert or any specialist about the credibility of the quote. The rest of the news dealt with the quality of drinking water, its pollution, attacks on water lines. Other governmental actions were discussed, such as the ministry's measures to ensure that water was not contaminated as a result of the repercussions of the Corona pandemic, the effect of interruptions in the electricity network on pumping water to homes. There was one news article that included guidelines for the public to maintain the quality of drinking water by cleaning home tanks. The sources of news gathered relied on official institutions and officials' statements.

The reports focusing on the water sector were concentrated in Al-Ghad newspaper. Researchers attribute the reason for this to be the number of journalists who specialized in the water sector working with Al-Ghad newspaper. The reports dealt with attacks on water lines, water policies in Jordan, and were based on multiple sources, studies and reports.

Climate Change

Searching for the term “climate change” 24 press articles were divided into 13 news items with a rate of 54%, seven with a rate of 29%, three articles with a rate of 12.5%, and one interview with a rate of 4%.

⁵⁵ Water expert: Disi water is contaminated with “radium”, which causes carcinogens (Ammon News). <https://bit.ly/2UZJwey>

⁵⁸ Exacerbation of Water Crisis in Jordan.. Disi Provides Temporary Solution (ARIJ). <https://bit.ly/37Y29Vq>

The monitored materials dealt with the problem of climate change and its effects on the environment, the water sector and agriculture, and the purity and quality of air. The researchers found that all observed materials that dealt with climate change did not include a scientific definition for it, except on one site, which is the specialized “Awraq”⁵⁹ website.

The researchers noted that the media tried to present the problems and challenges facing the water sector, agriculture and the environment in the published materials, but did not go into depth. Solutions to these problems and challenges were presented according to experts or an article in a book, and raising awareness was not given enough attention. Researchers did not find any messages that dealt with raising awareness for the public in order to reduce harmful emissions to the environment, such as car exhaust, or overgrazing that threatens green cover or illegal cutting of trees.

As for the diversity of information sources, the monitored materials witnessed an acceptable diversity in the sources, as thirteen articles relied on official sources, while eight press materials were distributed among experts, academics, studies and international reports, and an article whose sources were completely anonymous.

Water Loss Percentage

The total number of press materials monitored in the media by searching for the phrase “the percentage of water loss” reached 25 press materials which were divided into eleven news items at a rate of 44%, twelve reports with a rate of 48%, and one article and one investigation with a rate of 4% each.

All the material that was monitored dealt with the problem of water loss, and the increase in loss over recent years, and statements from the ministry and other officials, in addition to reports from the MWI about network maintenance and the need to stop attacks on water networks, which are the most important factors for increase of wastage.

Water loss was only defined in a report published by Al-Ghad daily newspaper⁶⁰ based on the State of the Country Report 2020, in which it stated: “The waste is divided into two types, the technical losses that are lost through network fractures during the pumping and running of water, and the administrative losses resulting from the default and accurate reading of meters, and illegal use of water, including theft.” Data from the MWI in 2016 showed that the percentage of waste is about 52% due to technical and administrative losses while illegal use is estimated at about 50% of the total losses.

The media did not give importance to awareness and rationalization of consumption for the public in the monitored materials. Researchers attribute this to the fact that water loss depends mainly on water supply networks, which is the responsibility of the ministry and water companies. Another report of Al-Ghad newspaper⁶¹ stated that within the objectives of the water strategy was to reduce administrative and technical water losses to 25% by the year 2022. The MWI has implemented several capital projects to reduce the rate of administrative and technical losses in the Kingdom, attributing its rise to about 52% in 2015 to the lack of access to funding for the rehabilitation and expansion of the water networks due to the Syrian refugee crisis and random urban

⁶⁰ Share of resources (Al-Ghad newspaper). <https://bit.ly/2Zfsg6h>

⁶¹ Water sector State status report: Lack of funding hinders achieving some goals (Al-Ghad newspaper). <https://bit.ly/2WvOamR>

⁵⁹ Climate change is war on the whole world (Royal Society for the Protection of the Marine Environment). <https://bit.ly/30hmaVt>

expansion, in addition to the contribution of the geopolitical factors such as the increase in attacks on the water networks. The media coverage neglected to raise awareness of the inevitability of stopping attacks on the networks. The researchers confirmed once again that the content of the materials monitored in media outlets that include specialized journalists was more accurate, diverse, and inclusive of information than others.

It is worth to mention that eighteen of the total materials monitored were obtained from official sources, while the sources of the other seven articles varied between organizations, reports, studies and experts.



CHAPTER 3: RECOMMENDATIONS

First: Specialized Training for Media Professionals

The study showed the urgent need for specialized training media professionals in water issues to create journalism focused in water issues and challenges, in addition to proposing and searching for solutions. Most of what is written in the press is news, and media outlets do not provide sufficient illumination for innovative and creative scientific solutions. Most of the respondents believe that any upcoming training must take into account the following considerations:

- Supply specialized media of water issues with a new generation that presents diverse content and guarantees to continue providing fresh content to various media outlets that searches for both challenges and solutions.
- Select trainers who are able to provide knowledge and skills to journalists, which requires training sessions that bring technical and media experts/professionals who can translate their knowledge into skill that is employed in specialized writing, preferably targeting media professionals who specialize in water issues to benefit from their experiences, refine their skills, and enhance their ability to transfer knowledge to others.

- Organize a specialized and multi-tasking training for media professionals so that they can use their knowledge and skills in written journalism/television/video production, etc.
- Organize specialized training in investigative journalism on water issues that attracts media professionals who work in investigative journalism.
- Create specialized training for weather forecasters, as the weather forecast is an important opportunity to provide information related to the water sector and it will contribute to raising awareness and promoting behaviors supporting the rationalization of water use; training meteorologists constitutes an entry point for change in meteorological bulletins to become part of the media content supporting the water sector.

Second: Specialized Training for Experts in the Water Sector

Implement specialized training for experts working in the water sector, in which effective communication tools are used to enable experts to present their ideas and experiences in the water sector in a simplified and understandable manner which can be communicated to multiple audiences.

Third: Develop Media Policies in Support of the Water Sector in Press Institutions

The study found confirmation by experts and media leaders that water issues are not a priority to media institutions. To strengthen media policies and place water issues on their agenda, we suggest the following:

- Establish written policies that include in their Establish written policies that include follow-up on water issues, guide leaders in media institutions to enable journalists in the field to actively follow up on water problems and challenges and to discuss solutions.
- Prepare a scientific terminology guide in the water sector in order to make it easier for journalists to understand the issues at hand and to avoid the use of incorrect and inaccurate terms, as well as providing simple definitions that the public can understand.
- Prepare a directory of the list of sources and references to develop news, reports, and press stories, and enrich them with various and specialized sources, as the study showed that journalists cannot easily reach experts or know their specialties, which can be an added value to the story under discussion.

Fourth: Launch a Media Observatory for Water Issues

The study revealed a problem with obtaining information related to water issues, despite the assurance that it is available in studies and reports

of international institutions. Access to information may be difficult or unavailable to journalists or in a language other than Arabic. Therefore, launching an observatory or platform on social media may facilitate the collection and documentation of information and make it more easily accessible to media professionals and activists on social media sites, while a civil society organization may be assigned to undertake this task.

Fifth: Develop a Communication and Media Plan for Official Institutions Working in the Water Sector

- Develop a communication and media plan for each of the official institutions operating in the water sector based on specific communication objectives, which include identifying the target groups in communication processes and the main messages for each group, as well as identifying the communication channels, means and tools necessary to deliver messages. The media and journalists are one of the main beneficiaries of the plan, the plan will include a general framework for the main community awareness campaigns that the institutions will implement, including the main activities, resources used, and expected financial costs.
- Develop the capabilities and skills of media workers in the water sector through effective communication mechanisms with the media, and train them in professional writing on water issues in order to provide media related content.

- Train specialized engineers (agriculture, water) working in research and agricultural institutions to build their capabilities and skills in communication and communication with the media and present their ideas to enrich the media content related to agriculture.
- Diversify media tools and invest in social media platforms to raise awareness and communicate information through short videos and infographics to farmers easily and smoothly.
- Design community awareness campaigns based on the objectives and plans of the National Strategy and communication plans of the MWI with target groups are determined and expected results and outputs will be written in detail. The campaigns must include specific and direct messages to the target groups, in which the communication tools and means are specified in detail, and the activities to be implemented are defined according to a specific time frame with the expected costs and the resources needed for implementation.

List of Participants in the Brainstorming Sessions and Panel Discussions

Name	Job Title
Elias Salameh	Academic and water expert/ University of Jordan Center for Water and Energy
Iman Al Faris	Specialized journalist in Al-Ghad newspaper
Bassam Al-Assad	Activist on social media
Bashar Zaitoun	Water expert
Tawfiq Abu Sumaka	Representative of Al-Ra'i daily newspaper in Aqaba governorate
Thaer Al-Momani	Environment Directorate Manager
Jamal Al Mousa	Arabia Weather website Consultant
Hazem Al-Nasser	Former Minister of Water and Irrigation
Raed Al-Najjar	Jordan News Agency/Petra
Raed Al-Nimri	COP of Water Innovation Technologies project
Ziad Nuseirat	Roya channel representative, northern governorates
Salim Al-Batayneh	Former Deputy Secretary General of Water Authority and Former Lower House Member
Suzan Alkaylani	Former Adviser to the Minister of Water and Irrigation
Daffy Riyalat	Assistant General Manager of the Meteorological Department
Adnan Al-Zoubi	Former Secretary General Assistant and Minister Adviser for Communication and Water Public Awareness
Oroub Sobh	Activist on social media
Ali Al-Mashni	Director of Environmental Monitoring and Assessment at the Ministry of Environment
Farah Al-Attiya	Journalist in Al-Ghad daily newspaper
Kamal Zakarneh	Journalist in Al-Dustour daily newspaper
Maan Al-Aqili	Activist on social media
Mansour Ma'lla	Specialized journalist in Petra News Agency
Maysoon Al-Zoubi	Former Secretary General for the Ministry of Water and Irrigation

List of the Names of the In-Depth Interview Participants

Name	Job Title
Ibtisam Al-Attiyat	Former Specialized Journalist in Al-Dustour newspaper
Ahmed Hassan Al-Zoubi	Journalist and Social Media Activist
Arwa Hamadneh	University of Jordan; Water expert
Batr Waradam	Researcher at The Environment and Water Sector
Khaldoun Al-Khashman	Secretary General of the Arab Association for Water Resource
Dana alsuyyagh	CEO of AL Mamlaka Channel
Dureid Mahasna	President of Edamah Association for Energy, Environment and Water/ Water Expert
Radwan Weshah	University of Jordan; Water expert
Ramzi Khoury	News Director at Roya Channel
Ghaida Al-Abadallat	Researcher at The University of Jordan
Faris Al-Sayegh	General Manager of Roya Channel
Faisal Abu Al Sundos	General director of Middle East Center for Enabling Initiatives/ Environmental Expert
Muhammad Al-Najjar	Activist on social media
Makram Al-Tarawneh	Chief editor of Al-Ghad newspaper
Nizar Abu Jaber	Director of The Center for the Study of Natural and Cultural Heritage/ German University. Director of Natural and Civilizational Heritage Study Center/German Jordanian University
Nizar Haddad	General Director of The National Agricultural Research Center

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