Can Deep Sea Water Be Processed into Potable Water and Distributed into the Middle East?

Diane Roessler Weinert

Keywords

Artificial Intelligence, Synthetic Intelligence, Computational Intelligence, Water Twin, Flow Sensors, Meter, Energy, Performance, Global, Data, Networking, Platforms, Sovereign Wealth, Swarm Intelligence, Smart Technology, IoT, Foreign Intelligence, Evolutionary Computation, History, Energy Renewable Oil & Gas, Business Development, Reservoir Operation, and Co-Investment, Hydropower, Solar, Wind, Geothermal, Bioenergy, fossil fuels and Renewables.

Date of Submission: 01-02-2023 Date of Acceptance: 10-02-2023

ACKNOWLEDGEMENT

I acknowledge the support of federal funding, the association for the advancement of Artificial Intelligence, Old Dominion University, Strayer, Jack Welch Management, The Adult Learning Center, University of Monaco, and Capitol Technology. The San Francisco Airport for contributions with the development of security and transportation. With the support of these enterprises, scientific advancement can grow even for the displaced.

The author started a career in aviation in 1986 with Flexible Solar in Combination with an Airplane. I like to thank Dean Ian and Professor Dennis forprofessional direction. I like to extend special thanks to those engaged in the surveys in quantitative research.

Dean Ian, Professor Dennis and the staff at Capitol Technology contributed guidance for me to achieve my doctorate degree. Capitol Technology has ensured continued higher education with Artificial and Synthetic intelligence. A special thanks to the State of California and the President's circle for allowing opportunities might not otherwise have developed.

Gary from Scores for accurate analysis. Kevin Jenkins from Portfolio Counselling Services for advisement. A special thanks to the Middle East for a safe environment to study.

I. INTRODUCTION

Artificial Intelligence, Synthetic Intelligence and Computational Simulations are integrated for water distribution throughout the Middle East. Real time, predicting the volume percentage, flow pattern in scaled oil pipelines, based on a non-invasive method with a creative structure and based on gamma radiation to detect wave intensity are integrated (Mayet et al. 2022.p.1). Computational Intelligence (CI) optimization methods, such as Swarm Intelligence (SI) and Evolutionary Computation (EC) are conventional gradient-based algorithms (Bavandpour, Haddad, Rajabi, 202, p.1). There has never been a better time for scientists to spark and shape public discourse, the thinking and commitments pf parliamentarians and the content of Government and inter-Governmental policies (The Royal Society, 2022. p.1).

Iraq Kurdistan water is a geopolitical resource on which the demand is growing daily (Sitchinava, 2021.p.1). The United States Agency for International Development (USAID) is allocating \$65 mm over 5 years towards increasing resilience to water security risks (Deemer, 2022.p.5). Security is attempting to improve water security through the construction of dams, desalination plants and infrastructure projects (Demmer, 2022, p. 5).

Infrastructure projects will provide attractive targets to terrorist groups and hostile nations, high-profile targets, and destruction potentially may have catastrophic impacts (Demmer, 2022, p.5). Plans to decarbonize the economy, energy prices soaring, and demand for nationally secure energy sources are growing(The Royal Society, 2022,p.1). Kingdom of Saudi Arabia aims to determine optimal patterns under soaring oil and energy prices to compute the comparative and bring worldwide leaders together (Elzaki et al. 2022,p.1).

To accelerate the deployment of technologies such as wind, solar and nuclear plants, deployment of Artificial Intelligence, (AI)alone will not solve the problem of energy security and decolonization (The Royal Society, 2022p.1). Monte Carlo code, a dual-energy source was simulated on one side of the oil transfer pipe and a detector on the side to model the thickness and to measure indicator percentages (Mayet et al. 2022.p.1). North Atlantic Treaty Organization (NATO) is committed to ensuring the AIapplications developed for deployment will be in accordance with the following six principles: lawfulness, responsibility and

accountability, explainable and traceability, reliability governability, and bias mitigation (NATO Review, 2022.p.1).

Background of the Study

Saudi companies with notable exceptions do not borrow abroad, the domestic banking system is a critical source for funding 2030 (Schulkes,2021, p.1). The costs of municipal water supply in Bahrain, revising Bahrain's municipal water tariff structure help conserve water, enhance cost recovery "and" contribute to achieving social equity among water consumers (MENA, 2021). Banks must go from being disruptive and passive to developmental and active (Schulkes,2021, p.1).

The implemented pilot plant is capable of producing 25 m3/Day of drinking water with operating costs at US\$0.75/m3(Borquez et al. 2018, p.14). Designs of articles on water processes roadmaps and methods are integrated (Borquez et al. 2018, p.14). In the exploratory project integrates, Smart Water Control, scientific fundamentals for the successful implementation of innovative and intelligent sensor and control networks in the field of urban water management (Universitat Innsbruck, 2022, p.1).

Table 1ALTERNATIVE METHODS OF TECHNOLOGY

A Battery Storage System
Bottling-Plant Construction
Brackish Water
Captive Deionization
Collecting Water from Air-Extracted by Condensation
Desalination-Reverse Osmosis
Drilling into the Ground
Extracting Water from the Air
Infrastructure & Facilities
Logistics-Packaging Distribution
Marine-Ships
Mineralizing Rivers
Municipal and Salid Waste Plant
Onshore
Offshore
Primary Networks/Hubs
Pumping-Pipeline
Sewage
Solar Power
Supply-Chain
Underground Reservoirs
Vessel
Wind Power Plant Mangroves

Smart monitoring of individual subsystems and the gathering of real-time sensor data and optimal control process is to improve the water cycle with regard to efficiency, optimizations, conservation and resources (Universitat Innsbruck, 2022.p.1). The reverse osmosis process utilizes a large amount of energy of electricity but photovoltaic panels can reduce the cost of electricity to be cost effective to operate the system which is designed to produce 32 tonnes of fresh water per day (8 hours) using 56 kilowatts of electricity (Muscat, 2021. p.1). The city of Abu Dhabi is the capital and the federal seat of the government of the United Arab Emirates (UAE) (Kashef, 2022.p.1).

Table 2CHARACTERISTICS OF WATER

Agriculture		
Drinking		
Bathing		
Oil & Gas		
Food		
Pharmaceutical		

Kshef (2022) study found the population consists of Emirati citizens working in professional, managerial, and senior level occupations in the private and public sectors (p.1). Expatriates work in a broad

spectrum of professional, industrial and labor occupations in the private and public sectors (Kashef, 2022.*p*.1). Dubai is home to global engineering, financial and commercial operations (Kashef, 2022.*p*.1).

Dubai has posted targets in Emirate aims to cover 25% of its energy consumption with renewable energy sources (exclusively solar) by 2030 and to reach 74% of clean energy sources by 2050, which aims at attracting R&D centers and make the emirate a global center for renewables (Alnaser et al. 2021p. 9). A U.S.bn Dubai Green Fund will be established to provide soft loans for investments in the clean energy sector (Alnaser et al. 2021p. 9). The UAE Energy Strategy 2050 aims at improving energy efficiency by 40% by 2050 (Alnaser et al. 2021p. 9).

Table 3CONCEPTUAL MODEL

	Economic Growth	Male Population	Fe-male	Life Expediency	Illiterate
58,000.	5.6%	65%	35%	75 and above	6.4%
		Growth	Growth Population	Growth Population	Growth Population

With The National Aeronautics and Space Administration (NASA) and National Oceanic and Atmospheric Administration (NOAA), Artificial Intelligence (AI) can improve the wealth of a nation. The pertinent information of surface winds, water levels, current frequencies, visibility, quality and low water levels can be detected (NOAA, 2022. p.1). The images are captured in real time with satellite (NOAA, 2022. p.1).

National Geographic Information System (GIS) Map Viewer, The National Weather Service data sets are available in formats are able to be imported directly into Geographic information systems (GIS) or custom map viewers are web pages (NOAA, 2022.p.1). Data formats include downloadable shape files and KML formats web services, and our base maps in shape file format (NOAA, 2022.p.1). NOAA formed in 1970, the agencies came together at times are among the oldest in the Federal Government (NOAA, 2022.p.1).

Visibility

Water
Levels

Waves Water
Temperature

Salinity

Raffrymany

Figure 1
Variables

(NOAA, 2022.p.1).

The UAE targets for renewable energy is to cover 40% of its energy consumption with renewables by 2050 (Alnaser et al. 2021 p. 8). Abu Dhabi has set a goal of generating 7% of its electricity from renewables by 2050 while the share of renewables in Dubai's power mix is expected to reach 15% in 2030 (Alnaser et al. 2021p. 9). The UAE plan 2050 was approved with the aim of increasing the use of non-fossil energy sources to 50% of the energy consumption of which 44% renewables and 6% nuclear, and increasing energy independence overall, for a planned investment of US \$163.3bn (Alnaser et al. 2021p. 9).

The UAE plans to invest in solar energy to meet objectives regarding the development of renewables electric (Alnaser et al. 2021, p. 9). The third phase of 800 MW of Dewa's Mohammed Bin Rashid Al Maktown Solar Park is expected to be completed by 2020 (Alnaser et al. 2021, p. 9). In 2018, DEWA signed an EPC contract with Saudi Arabia's ALWA power and China's Shanghai Electric (Alnaser et al, 2021, p. 9). Qatar strives to meet 20% of its energy demand from renewable sources by 2030 (Alnaser et al, 2021, p. 9). Solar power capacity of 1800 MW by 2020, for a cost estimated between US \$10bn and US \$20bn (Alnaser et al, 2021, p. 9). Qatar submitted an Intended Nationally Determined Contribution (INDC) in preparation of the COP21 and ratified the Paris agreement in April 2016, no firm commitments were made to reduce its GHG emissions (Alnaser et al, 2021p. 9).

Red Sea Case Study

The case study presented is the Red Sea project and an investigation into the Dead Red Sea. The Red Sea project and Amaacla are expected to create more partnerships and break new ground (Gulf Construction Online, 2021. p.1). Embracing nature-based solutions in addition to technical approaches for carbon sequestration, including growing more mangroves and seagrasses, and even mechanical trees, which will help us to achieve 100% carbon neutrality (Gulf Construction Online, 2021. p.1).

No Project Results

If the water is not distributed there will be

- Increased platform costs.
- Increased number of vessels needed.
- Poor Drilling performance.
- Unsafe sites.
- Compromised quality and reliability.
- Poor leak detection.
- Overflows.
- Poor quality.
- Commercial issues.

Unified management, the creation of a digital twin and the control of field work have increased operational efficiency by more than 15% over the last 10 years (Idrica, 2022, p.1). Water losses reduced by 18% on average, thanks to near real-time water balances, the integration of remote reading systems with flow measurement systems in the network, and the use of Al algorithms for pinpointing leak locations (Idrica, 2022, p.1). The new method to optimize hydraulic performance, which included advanced pressure monitoring, boosted the system's efficiency by an average of 25% (Idrica, 2022, p.1).

Problem Statement

The growth of population in, industrialization, environmental deterioration, and economic evolution in the world has resulted in increased demand for accessing fresh water (Ali, Hilal, Pathak, Shon, 2020, p.485). Growing water scarcity, depletion of freshwater sources, coupled with the rapid urbanization and industrialization are driving the water desalination equipment market (PR Newswire,2021. p.1). Al industry is in an infinite stage and governmental initiatives of Al make it a jurisdiction to consider (Marda, 2018. p.1).

There is an issue of acquiring funding for areas in order to be able to distribute quality water. Within the database, informant's networks cannot overlap, the respondents cannot belong to networks, or this phenomenon is negligible: furthermore, the informants cannot also be responsible in another network except as a small part (Audemard, 2020. p.1). The aim here is not to sample individuals but to sample personal networks, and reproduce, within the database, the structure of the relationships between members of a group (Audemard, 2020, p.1).

The problem is the power of the pumps to process a given amount of water per hour and the size and power of the RO system (Geschwind, 2022, p.1). The pumps need to be scaled to handle 2,000,000 gallons of water an hour (Geschwind, 2022, p.1). There is not one single RO system will handle this much a number of is needed to set up a parallel system to process the water (Geschwind, 2022, p.1).

Purpose of Dissertation Study

The author, began a study of eczema when testing cures hydration was a factor for curing eczema. Testing on one patient, the eczema was cured. The results of the research trumped the impossible.

When searching for details, the author wanted the le crème' de, le crème of everything needed to be implemented. The phenomena were reached, and the research expanded. The author was elated when Capitol Technology University accepted the proposal for the water project.

The Middle East was the chosen geographical location as when the author was investigating areas the author came across "Vision 2030". The author has learned a lot in academic years and one thing stands out must have focus and be specialized and if deviate or go one million directions it will not work is why the Middle East is selected. Chi-square and meta-analytical are the methods synthesized in the study.

Empirical evidence has been chosen over conventional theory. Desalination is a successful process; however, it is geographical. The satellite data includes relevant data about water availability and scarcity in the immediate area in the Middle East with metrics of limited rainfall, groundwater, rather than approximating measurements (WRAP,2018. p.1).

Significance of This Study

In the end, cooperation between scholars with different theoretical and methodological approaches is key to study, and address, intertwined global problems such as exclusion, poverty, climate change, and conflict (Ide, Lopez, Frohlich, Schffran, 2021, p. 568). The purpose of this quantitative phenomenological study is to complete a feasibility study of extensive data of deep-sea water, technology such as hydropanels, and desalination to eliminate quality water scarcity and improve health for displaced people in the Red Sea such areas as Jordon. Baert's (2005) study found the following, the deprived areas must be included in the mapping and budget allocation to meet the basic needs they are significant because they embody inequality and power differential (p.98).

Nature of Study

Theresearch of "Can Deep Sea Water Be processed into Potable Water and Distributed into the Middle East" study will contribute to the field with knowledge about drought areas in the Middle East and present available options to improve the best and low-cost alternatives and how these will influence specific research questions (Capitol Technology, 2021, p.1). The Dubai International Financial Center is a financial hub with an English common law-based legal framework is separate from the rest of the Emirates (AI-Monitor, 2022,p.1). Time of market uncertainty, oil price volatility and energy transition, as the world moves to a lower-carbon system to tackle climate change (Brekelmans, 2018, p.1).

Research Study

The research questions guiding this study are geared to understand how the water is processed and to see if the recipients may have a recommendation. The key components are (a) a rationale for conducting the review: (b) research questions or hypothesis guide the research, (c) an explicit plan for collecting data, including how units will be chosen; (d) an explicit plan for analyzing data, and (e) a plan for presenting data (Randolph, 2009, p.4). The research will show results of specific direction of investigating pricing for the alternatives of water and proposes a recommended solution.

The Middle East through this study has been categorized as "high risk" due to geopolitical. The Middle East and North Africa (MENA), region has the world's highest levels of forced displacement with an estimated 7.6 million refugees (about twice the population of Oklahoma), of whom 2.7 million are hosted in the region, and 12.4 million displaced fleeing protected conflicts (The World Bank, 2021. p.1). Putin has argued the export of liberal values to the region crushed domestic traditions and destabilized whole societies (Service, 2020. p.1).

Table4

Research Stage

Stage	Problem formation	Data Collection	Data Evaluation	Analysis and	Public Presentation
Characteristics				interpretation	
Research questions	What evidence is	What procedures	What retrieved	What procedures be	What information be
asked	included in the	be used to find	evidence be	used to make	included in the review
	review?	relevant evidence?	included in the	inferences about	report?
			review?	literature as a	
				whole?	
The primary function	Constructing	Determining in the	Applying criteria	Synthesizing valid	Applying editorial
in Review	definitions	research contained	to separate	retrieved studies.	criteria to separate
	distinguish	potentially	"valid" from		important from
	relevant from	relevant sources to	"invalid" studies.		unimportant
	irrelevant studies.	examine.			information.
Procedural	Differences	Differences in the	Differences in	Differences in the	Differences in
differences create	included	research contained	quality criteria.	rules of inference.	guidelines for editorial
variation in review	operational	in sources of	Differences in the		judgment.
conclusion	definitions.	information.	influence of non-		
	Differences in		quality criteria.		
	operational detail.				
Sources of potential	Narrow concepts	Accessed studies	Nonequality	Rules for	Omissions of review
invalidity in review	might make review	might be	factors might	distinguishing	procedures might make
conclusions.	conclusions less	qualitatively	cause improper	patterns from noise	conclusions

	definitive and	different from the	weighting of	might be	irreproducible.	ı
	robust.	target population	study formation.	inappropriate.	Omission of review	ı
	Superficial	of studies.	Omissions in	Review-based	findings and study	ı
	operational detail	People sampled in	study reports	evidence might be	procedures might make	ĺ
	might obscure	accessible studies	might make	used to infer	conclusions obsolete.	ı
	interacting	might be different	conclusions	casualty.		ı
	variables.		unreliable.			l
						ı
(Randolph, 2009, p.5).	•					l
						ı

(1) Will having quality water available increase the revenue in improvised areas?

The problem of low coverage levels, particularly among poor and marginal communities is of particular concern in developing countries and those with rapid rates of population growth and migration (Mumssen, Triche, Sadik, Dirioz, 2017, p.12).

(2) Who is purchasing the water?

Water is, of course, political and management decisions are subject to serious debates and anxieties at scales, but often with a sense of higher stakes in desert settings (Koch, 2021, p.90). The cases analyzed have engaged the formal private sector (national, international) to invest in and operate large-scale projects (Mumssen, Triche, Sadik, Dirioz, 2017. p.12). Economic regulation refers to the laws, regulations, enforcement mechanisms, incentives, and processes are employed by governments to ensure essential services such as water supply and sanitation services (WSS) are available to the population at reasonable prices (Mumssen, Triche, Sadik, Dirioz, 2017. p.12).

Industrialized nations agree under the convention to support climate change activities in developing countries by providing financial support for action on climate change – above and beyond any financial assistancealready provide to these countries (United Nations Climate Change, 2021. p.1). A system of grants and loans has been set up through the Convention and is managed by the Global Environment Facility (United Nations Climate Change, 2021, p.1). Industrialized countries also agree to share technology with less advanced nations (United Nations Climate Change, 2021, p.1).

With the Paris Agreement, countries established an enhanced transparency framework (ETFD) (United Nations, 2016. p.1). Under the ETF, starting 2024, countries will report on actions taken and progress in climate change mitigation, adaptation measures, and support provided or received (United Nations, 2016, p.1).

(4) What are the dangers to marine life?

Regulatory framework refers to the enabling environment supports accountability, transparency, and achievement of regulatory objectives as well as the specific regulatory rules, mechanisms, and procedures are applied as part of the regulatory process (Mumssen, Triche, Sadik, Dirioz, 2017, p.12).

(5) What are the dangers with the infrastructure?

Formal regulation of WSS became a topic of international interest in the late 1980s when the rising costs of infrastructure needed to serve expanding populations and protect the environment led policy makers to seek private investment (Mumssen, Triche, Sadik, Dirioz, 201, p.12).

(6) Can increasing wealth increase the availability of water resources?

Water resources management (WRM) aims to ensure the sustainability and quality of water resources, manage water shortages, and avoid the economic, political, and national security risks associated with water shortages (Mumssen, Triche, Sadik, Dirioz, 2017, p.12).

(7) How is water information received?

What are some of the challenges encountered in leading a project of this scale since its interception (Gulf Construction Online, 2021. p.1)?

Approach to regenerative tourism to the fact, building infrastructure ensures off-grid 100 percent powered by renewable energy (Gulf Construction Online, 2021. *p*.1). A lot of newdevelopment for water distribution is expected to increase (Gulf Construction Online, 2021, *p*.1). Likewise, strict sustainability commitments mean for any development works, ensure the habitat and wildlife are protected at costs (Gulf Construction Online, 2021. *p*.1).

What is the vision of creating cooperation between The Red Sea Project and the Amaala project?

The Kingdom's Vision 2030 program lays out the framework to diversify the economy with three main themes: a vibrant society and thriving economy(Gulf Construction Online, 2021, p.1). The Red Sea Project includes inland resorts but is a destination built a stunning archipelago of more than 90 islands (Gulf Construction Online, 2021, p.1). Despite the difficult circumstances surrounding the pandemic, have more than 500 contracts worth over SR15 billion (\$4 Billion) to local and international partners (Gulf Construction Online, 2021, p.1). An exciting year ahead of us at TRSDC (The Red Sea Development Company) (Gulf Construction Online, 2021, p.1). Moving into a post-COVID world, are creating more partnerships, breaking new ground, and

continuing to move forward with plans to welcome the first guests by 2022 (Gulf Construction Online, 2021, p.1). Source water is produced using patented solar technology draws pure water vapor out of the air and converts it to premium, mineralized drinking water (The Red Sea Development Company, 2021, p.1).

Water created from these hydro panels will be bottled at a plant also runs on solar energy, creating the largest solar-powered of its kind (The Red Sea Development Company, 2021, p.1). Located on-site at the Red Sea Project, the source facility will have a capacity of 2 million 330 ml bottles produce 300,000 bottles a year (The Red Sea Development Company, 2021, p.1). The reusable glass bottles will be refilled on-site as part of a circular sustainable distribution model (The Red Sea Development Company, 2021, p.1).

Water harvesting and bottling will generate zero carbon and zero single-use plastic bottles (The Red Sea Development Company, 2021, p.1). Partnership with Global Source makes us the destination in the world with regenerative bottled water and reflects commitment to separate using renewable energy and free of single-use plastics (The Red Sea Development Company, 2021, p.1). TRSD servesthe sustainable tourism market, which is poised to grow by the US \$130.12 billion (about \$400 per person in the US) between 2020-2024 (The Red Sea Development Company, 2021.p.1).

The Red Sea Development Company will make Source water its exclusive water including the largest solar-powered facility of its kind ensure the use of glass over plastic has 0 impacts and produce 300,000 glass bottles per year (The Red Sea Development Company, 2021, p.1). Source Global, PBC's mission is to make drinking water an unlimited resource (The Red Sea Development Company, 2021, p.1). The theoretical framework selected is circular technology economy framework will include- quantitative synthesis, budget, historical, conceptually, methodology, geopolitical, quality, coverage, significance, and rhetoric (Randolph, 2009, p.1).

Theoretical Framework

The scope is to integrate Artificial Intelligence for water distribution in order to eliminate biases and geopolitical in the Middle East, the author manipulated the questions to fit the industry. Literature analysis and discussions took place held at the 2021 Family Conference. There will be a thorough investigation of the issue of the Middle East's lack of water.

The frequency and hypothesis of water distribution in the Middle East are tested using meta-analysis and chisquare. The author wants to eliminate falsification and be able to present the truth. Investors are interested in knowing ifthe water distribution will make money.

Historically, hotels incorporated boilers fueled by word or fossil fuels for making hot water (Whitefield, 2021. p.1). Solar water heating systems ("Solar water heating",n.d.) are also starting to attract interest for hotels (Whitefield,2021, p.1). As to be hoped about climate change issues, hotels are starting to put considerable efforts into reducing energy consumption, and these initiatives are achieving very reasonable returns on investment and decreasing (and not increasing) the operating costs (Whitefield, 2021, p.1).

8. Research Design

For the Foster Plot, the author searched the ISSN number on Google Scholar and recorded the number of citations.

Identified Research Variables

Independent Variable - State-of-the-Art water innovation study

Alternative equipment will be researched, and a feasibility study is given. The goal is to produce the best quality water and the lowest cost available.

Dependent Variables -

- (1) **Population Growth**-the population is expected to increase with mitigation by 2050.
- (2) **Risk**-Area studies research and forms of knowledge can often be "territorially trapped"- is, are bound by rigid spatial frames of the global map, which neglect the dynamic ways people, ideas commodities, and power relations cross borders and unite places for removal from one another (Koch, 2021, p.89).
- (3) **Historical**-The history of the antiquated rhetoric will be analyzed. Desalination is the preferred method.
- (4) **Geopolitical** –A desert geopolitics framework is thus insofar as it refuses to take the "place out of the landscape" by detaching water as a separate category of analysis (Koch,2021. p.90). Is strong-arming keeping one country ahead of another? Is lack of water due to affordability?
- (5) **Landowners-** This article shows how joint imaginaries of the desert have been enlisted in forged foreign relations and domestic state making in the US West and the Arabian Peninsula (Koch,2021. p.101). Thebest-known case today of desert agriculture imperialism is the Israeli settlements in Palestine, ranging from the earliest Zionist farming projects to more recent tree-planting campaigns and the state-led takeover of scientific water resources needed to sustain Palestinian and Bedouin farmers (Koch, 2021, p.89).

9. **Definitions**

Absolute Monarchy- "This is a fight to insist this country must be ruled by a system in which everyone is equal" (HT Digital Streams Limited, 2021, p.1).

Bell curve- is the normal distribution. The hump represents normal.

Chi-Square - Shows the relationship between categorical variables.

Cosmopolitan- The nebulous core shared by cosmopolitan views is the idea human beings, regardless of the political affiliation, are (or can) citizens in a single community (Kleingeld, Brown 2019, p.1).

Computational Theory- The effective deployment of simulation models depends on access to diverse datasets, the use of analytics capabilities the ability to visualize model outcomes, and to capture share and re-use simulations as evidence in research and policymakers (Birkin, Procter, Allan, Bechofer, Buchan, Goble, Smith, Lambert, Roure, Sinnott, 2010,p.1).

Cosmopolitan Culture- serve as centers of economic development and value diversity, creativity, and equality (Sevincer., Kwon., Varnum, Kitayama, 2021, *p*.295).

Delphi Method- has been applied in various fields including healthcare, marketing, education, information systems, transportation, engineering, and finance (Zellner, Abbas, Budescu, Galstyan, 2021, p.10). As with any qualitative method on forecasts, the quality and accuracy of the generated forecast depend on the research design, as well as how it addresses human biases such as anchoring, framing, and desirability (Zellner, Abbas, Budescu, Galstyan, 2020, p.10).

Desalination Plant- Desalination plants are taking out the seawater inland using marine intakes and utilizing substantial amounts of energy to remove salt while producing concentrated as a byproduct (Science Direct, 2021, p.1).

De-securitization- The process opposite of securitization which involves the return of an issue from an urgent, securitized situation to the area of normal negotiations in political sphere (ICI Global, 2021. p.1).

Double Mass Curve- A condition to be observed.

Empirical Models- Includes scientific methodology with measurements.

Enterprise Technology Framework- is a key in an enterprise-wide business and IT architecture, as part of enterprise architecture (Genovese, 2021, p.1). It also helps to define the specifics for a line of business may be required as well or in the case of a hybrid cloud mode- what system or application must stay in the datacenter at the corporation (i.e."system of record") vs what may be hosted in a SaaS public model or accessed via a "system of agreement" via a mobile device (Genovese. 2014, p.1).

Environmental Category- When providing governments with financing to invest in projects- such as building a road, connecting people to electricity, or treating wastewater- aim to ensure the people and the environment are protected from potential adverse impacts (The World Bank. 2021, p.1).

Exajoule- is a unit of energy, (Statista, 2021, p.1).

Flux coupling analysis (FCA) aims to describe the functional dependencies among reactions in a metabolic network (Boyd, 2021,p.1). Studies of coupling relations are qualitative in the sense identify pairs of reactions for which the activity of one reaction necessitates the activity of the one, but without giving any numerical bounds relating to the possible activity rates (Boyd, 2021, p.1). The potential applications of FCA are investigated, however apart from some trivial cases there is no clue of what bottleneck in the metabolic network causes each dependency (Boyd, 2021, p.1).

Geopolitical – Failing to follow through on agreements of intent is costing some shared countries billions. **Holistic Approach-** Looking at one's well-being.

Left & Right Wing-Level individual-level variation in people's physiological and attention responses to aversive and appetitive stimuli are correlated with broad political orientations (Dodd. 2012.*p*.1). Greater orientation to aversive stimuli tends to be associated with right of-centre and greater orientation to appetitive (pleasing) stimuli with left-of-centre political inclinations (Dodd, 2012, *p*.1).

Life-cycle assessment- analyze the environmental impact from technologies, processes, and distribution.

Mangrove- Artificial systems can mimic chemistry.

Maritime Surveillance- has become a huge challenge, in regions where maritime traffic represents the major economic interest with threats or sources of illegal activities such as smuggling illegal immigration or maritime piracy (Airbus, 2022, *p*.1).

Meta-analytical- The results are combined with multiple studies.

Percentages under the normal curve – Calculated between the upper and lower numbers.

Preliminary Feasibility Study refers to the verification and evaluation of the validity of a new large-scale project conducted in advance under the supervision of the Ministry of Economy and Finance by Article 38 of the National Finance Act and Article 13 of the Enforcement Decree of Act to establish a valid budget allocation and fund management plan for new projects (Korea Development Institute, 2018, p.1).

Regulatory Framework- Refers broadly to the enabling environment supports accountability, transparency, and the achievement of regulatory objectives as well as the specific regulatory rules, mechanisms, and procedures are applied as part of the regulatory process. (Mumssen, Triche, Sadik, Dirioz, p. 2017).

Rentier regime- is a particular regime with its mode of regulation (Boyer,2015. p.254-257, Faudot.2019, pg.3). The word renter refers to the social position of the individual who owns lands and earns revenues of its properties without working- which means without creating value (Beblawi,1987, p.50,Faudot, 2019. *p.*3).

Renewable energy technologies-"Renewable energy is energy generated from natural resources- such as sunlight, wind, rain, tides and geothermal heat-which are renewable (naturally replenished) and never run out

(Exartier, 2022.p. 1). Qatar, Kuwait, Bahrain, and Oman received a renewable energy readiness score of 5.6,5.5,5.3, and 5.2 respectively due to their substantial solar and wind resources (Exartier, 2022.p. 1). The GCC energy demand is expected to put pressure on government budgets and reduce hydrocarbon export potential, thereby resulting in a loss of foreign exchange revenues (Exartier, 2022.p. 1).

Sentiments- Different tools and metrics be adopted to measure each of the dimensions of an opinion (D'Aniello, Gaeta,Rocca 2022, p.1).

Snowball-Snowball sampling is a survey method relevant for identifying a set of relations and taking into consideration the impact of context in the analysis (Audemard, 2022, *p.*1). The snowball effect is also used to measure wealth when money is invested and the import and export of technology.

Specs- Measure of Performance. The specifications.

Standard Deviation – The measurement between numbers.

Synergy- Businesses are facing new and tougher chemistry-based challenges often affecting multiple industries and supply chains (Royal Society of Chemistry, 2022). Through Synergy, businesses develop new ways of working to reduce risks, cut costs and bring solutions to market faster (Royal Society of Chemistry, 2022).

The LUT Energy System Transition Model was applied to examine a transition pathway for the Pakistan's energy system (Sadiqa et al.2021, p.4). The model optimizes the energy system with the applied constraints in 5-year time steps between 2015-2050 (Sadiqa et al.2021,p.4). For every 5-year step the model optimizes and applies a cost optimal solution in full hourly resolution over the whole year (Sadiqa et al. 2021,p.4).

Topography – Integrating artificial and natural.

Value – Empirical and theoretical work indicates a good reputation is valuable in it increases one's expected payoff in the fut**ure** (Pfeiffer et al. 2012,*p*.1). Trading can have a positive or a negative effect on the overall frequency of cooperation (Pfeiffer et al. 2012,*p*.1).

Variance- The distance between the measurements is spread out from the average value.

White Space- A white paper is an authoritative report or guide often addresses issues and how to solve the issues (Stanford, 2021, p.1). The term originated when government papers were coded by color to indicate distribution, with white designated for public access (Stanford, 2021, p.1).

Assumptions

People action rationally: they act rationally, consequently, they do so of the time (Baert, 2022.p.79). People so not act in a vacuum; they operate in a particular context or situation (Baert, 2022,p.79). Social action is to a large extent to be explained in terms of the situation in which it emerges, people will act differently in different situations due to every situation sets its own constraints and possibilities, zero method (Baert, 2022,p.79).

With the continuous iteration of this algorithm, the entire population will gather the individuals with the highest quality will be found us the global optimal solution (Liu, Chao, 2022, p.1). The research takes on a scientific approach by assuming artificial, synthetic and computational are going to streamline and reduce costs for quality water distribution. The summary concludes with no-project results.

The coverage of research strategies of inquiry is limited to surveys and experiments in quantitative research; phenomenology, ethnography, grounded theory, case studies, and narrative research in qualitative research, and concurrent, sequential, and transformation designs in mixed methods research (Creswell, 2009, p.14). Critical realists tend to pay particular attention to 'internally related': as opposed to 'externally related' relations (Baert, 2005, p.98). The solar thermal system continues to perform to expectations, it has significant implications for future similar hotel developments (Whitefield, 2021, p.7).

Scope, Limitations, and Delimitations

Moreover, the modular nature of solar thermal systems means can be distributed through the property to increase resilience and reliability while simplifying piping networks and maintenance (Whitefield, 2021, p.7). The commercial laundries provide cleaning services to hotels are prime candidates for solar hot water systems (Whitefield, 2021, p.7). It is a perception SOURCE water can reduce costs.

Research Methods

This is a quantitative, k-fold, analytical model, in-depth-analysis, grounded theory meta-analysis study including primary and secondary research. A holistic environmental approach is taken with indicators which include vibrant society, thriving economy, ambitious nation, higher-education, innovation, sovereign wealth witha frequency of occurrence. The indicators chosen to detect the market for productivity are high conversion rates, large consistent deposits, and engagement with education.

"Can Deep Sea Water be Processed into Potable Water and Distributed into the Middle East" will include past methods implemented and compare with the results of methodological flaws of those methods presented. Peer-Reviewed articles from to A journals are selected. I indexed with ProQuest, Publons, Google Scholar, Royal Society, Stanford, Elsevier SSRN, ResearchID, Crossref, Research Gate, Scilit, Mendeley WorldCat, Slide Share, Academia.edu, DRJI, ORCID, Issuu,Inc., Cosmos, International Sci, Indexing, Road, Google LLC,CiteSeerX and Citefactor,Web of Science, Middle Eastern Studies, Middle East Journal of Applied Science

& Technology, Journal of Earth & Environmental Science Research & Review, Journal of Civil Engineering Research and Technology, Research American Society of Civil Engineers are used.

On September 19, 2018, the Water Environment Federation published an article on storm water report blog focused on WRAP's collaboration with NASA Develop to use satellite data to assist with identifying the suitable locations for rain harvesting systems (WRAP, 2018, p.1). The researchimplements the methods of chi-square to connect the relationships between categorical variables. Rentier Regime to implement regulation and investigate to conclude who owns the land.

White Space is designed for the public. Construction theory implements the philosophy of law. Artificial Intelligence is a critical role to the lifecycle of offshore wind, infrastructure, logistics and WAVEWATCH-111(Rahimian et al. 2022, p.1).

Accounts related to the water desalination industry,

- Vessel
- Solar Power Plant
- Wind Power Plant
- A Battery Storage System
- Sewage Treatment Plants
- Collecting Water from Air-Extracted by Condensation
- Pumping-Pipeline
- Marine-Ships
- Desalination Reverse Osmosis
- Bottling-Plant Construction
- Supply-Chain
- Logistics-Packaging Distribution
- Mineralizing Rivers
- Drilling into the Ground
- Underground Reservoirs
- Extracting Water from the Air
- Onshore
- Offshore
- Municipal and Solid Waste Plant
- Primary Networks/Hubs
- Infrastructure & Facilities
- Brackish Water
- Captive Deionization
- Mangroves (Dunn, 2021).

A database has been designed and coded for the articles selected. The results are examined at conferences and by experts within the water industry. The process of discovering phenomena is documented. The process begins with an electric search of qualified articles have high citation numbers (Randolph, 2009,p.1). Databases are searched by keywords (Randolph, 2009,p.1). The research is complete when a point of saturation

has been reached (Randolph, 2009,p.1). The relevant information (Randolph, 2009,p.1). The authors' citations from articles are verified, not implemented in future research as the author finds outdated. The author uses a five-category Rubicon for evaluating the literature review, coverage, synthesis, methodology, significance, and rhetoric (Randolph, 2009,p.11).

Like oceans, deserts represent an environmental imaginary is hoped by certain physical traits (Koch, 2021, p.190). Humans filter these traits through social, cultural, and political lenses- sometimes the unique features are deemed (e,g,emphasizing the differences between deserts in Arizona and Arabia), and times are ignored (e.g., emphasizing a more global desert experience) (Koch, 2021,p.90). Just as one never thinks to detach "water" from the story of oceans in the maritime response to the territorial trap and arid-lands responsedoes not treat "water "as a separate category of analysis (Koch, 2021,p.90).

Hypothesis- Self-actualization enhances and influences the quality of life because is a significant association between the predictions of Maslow's theory and the quality of life (Tripathi et al, 2018,p.1). No psychological health is possibleunless the indispensable central and core of the person is vitally recognized, respected, esteemed and valued by oneself (Tripathi. et al, 2018, p.1). Abraham Maslow's theory of "self-actualization" can be an instrument to stimulate people to become healthy and to attain a better quality of life because a person is and never remains static: in self-actualization, a person comes to find a meaning to life when it is (Tripathi et al, 2018, p.1).

In a contribution to the field of knowledge "quality water will not deliver peace", an example of perception. This study will lead an investigation into the truth or falsification," *quality water will deliver peace*". This leads to the question, "can quality water improve peace"?

Gaps- Clear transparency on water processing alternatives. It has been difficult to complete a feasibility study as the author was unable to substantiate the pricing alternatives. The journals have produced enough evidence are definitive issues with geopolitical issues of water distribution.RO remains a limited physical process needs more research in terms of design and construction to increase its performance (Ghernaout. 2017, *p*.118).

Chapter Summary

Washington's "red lines," - is an urgent need for an end to ambiguity about what the US leadership is willing to tolerate before the military, diplomatic or economic sanctions are applied (Service, 2020, p.1). Transparency enhanced public approval of decisions need to be transparent (Randolph, 2009. p.1). America has a lot of influence from the Elite (Service, 2009. p.1).

A roadmap needs to include smart technology and will need to track renewable energy. Historical overview and journals cited America lacks the capacity for symmetrical retaliation because in Russia, unlike the United States, the result of a presidential election is known in advance and immune to external influence (Service, 2009, p.1). The instruments of IT power are available (Service, 2009, p.1).

Jordon signed an agreement in 2013 to join the water shared program which has now changed. Syria has decided not to go through with sharing water. The countries are fighting for independence and do not want to work.

Geotourism is a rising concept for sustainable development in rural areas (Al-Halbouni, 2022. p.1). Since 2015, the label, UNESCO Global Geopark (UGGp), expresses recognition of unified geographical areas with international geological significance and sponsors through protection, education, and sustainable development in a holistic manner, in a bottom-up approach (Al-Halbouni, 2022, p.1). By the end of 2021, worldwide 169 places were designated as UGGps and are part of the Global Geopark Network (GGN); the number of the is rising (Al-Halbouni, 2022, p.1).

A new initiative has started at the end of 2021 to develop a Geopark in Jordon the first on the Arabian tectonic plate and the fourth in the Middle East; the closest ones Queshm Island (Iran), Troodos (Cyprus), and Kula-Salihli (Turkey) (Al-Halbouni, 2022, *p*.1). The world's biggest owner of publicly traded stocks, the Norway sovereign wealth fund, is about to get the political go-ahead to insist companies in its portfolio have clear targets for cutting carbon dioxide emissions (Bloomberg, 2021, *p*.1). It's a goal was enshrined in the 2015 Paris agreement as an essential step toward preventing catastrophic temperature rises (Bloomberg, 2021, *p*.1).

"It's not practical to embark on something 's not coordinated," (Bloomberg, 2021, p.1) ". The biggest gains are tied to coordinated action when investors team up (Bloomberg, 2021, p.1). It finds effective cooperation between Israel and Palestine is parties with the business-as-usual approach (Dai, 2021, p.1).

What constraints the two parties from achieving consensual agreement are political tensions, the constraints of technology, the different perceptions of the value of the shared water, the mistrust between the two parties, the lack of external enforcement mechanisms, and the impacts of the domestic political environment (Dai,2021. p.1). Israel uses the water governance approach (Dai,2021p.1). Israel and Palestine in the water sector has been analyzed in a rich body of literature and interpreted through different disciplines, for example, legal, international relations and politics, engineering, and economics, and different perspectives such as climate change, water management, socioenvironmental relationship, cultural, and human rights (Dai,2021. p.1).

The 10 building blocks framework, the OECD Water Governance Indicator Framework, the Governance Capacity Framework, the Operational Framework for Water Governance, and frameworks focus on the conditions of good governance, and the individual Governance criteriasuch as effectivity, efficiency, and legitimacy (Dai,2021, p.1). These frameworks demonstrate one of the more general conditions, such as the importance of indicators, the interconnectivity capacity of governance, and the conditions for Governance from a broad perspective (Dai,2021,p.1). Dai's study proposes to examine the implementation constraints on Israel-Palestine water cooperation (Dai,2021,p.1).

To do so, the author chose the 10 Building Blocks framework as the analytical framework (Dai,2021, p.1). This is because, compared to frameworks, thebuilding blocks Framework distinguishes water governance conditions related to content (characterization of water in terms of issues, drivers, and values), organizations (the role of stakeholders, trade-offs, and regulations), implementation financing, enforcement, and conflict resolution) (Dai,2021. p.2). The 10 Building Blocks Framework was developed by van Rijswick etc. al. to identify the strengths and weaknesses in water governance capacity from a holistic perspective (Dai,2021. p.2).

Chapter 2

In Chapter 2 the author will present the results of the research with a literature review map in the appendix (Academic Review Checklist, 2021.*p*.1). Historical overview explaining research journals were included along with research documents and findings (Academic Review Checklist, 2021, *p*.1). Reverse Osmosis can remove toxins and deliver purified water, the alternatives are not as transparent.

Chapter 2 will delve more into the investigation of the gaps, water set aside for agriculture, white space, and transparency. The UNFCCC borrowed aline from one of the successful multilateral environment treaties in history (the Montreal Protocol in 1987) it bound member states to act in the interests of human safety even in the face of scientific uncertainty (United Nations Climate Change, 2021. p.1). An alternative solution would be to build a custom system to process much larger quantities of water and like any custom systems this will be very expensive (Geschwind, 2022.p.1).

Literature Review

Introduction

The author undertook a meta-analysis approach and investigated scorched earth to evaluate the relative impact of the water equipment process. In the Middle East identified reported long-term benefits showing a surplus in water distribution with desalination. The water industry is interested in desalination of the sea, ocean and brackish water (Lofty, 2022p.1).

The variables include algorithms, logistics and 3-fold cross validation. Included are no-project results along with implementing the study. Red Sea consists of the coasts of Saudi Arabia, Yemen, Egypt, Sudan and Eritrea (Alboobacker, 2017.*p*.1).

UAE residents use up to 550 Liters of water per day (The international average is 170-300 per day making it 82 percent higher than the world average (Gulf News, 2018.*p*.1). The UAE has the highest bottled water consumption per capita (265 Liters per year). The UAE accounts for 14 percent of the world's desalinated water (Gulf News, 2018. *p*.1).

The purpose of this funnel plot is to detect any risks and improve the quality and profitability of quality water. An exorbitant number of biases exist. In this chapter, the author shares findings and a couple of lessons learned on the history of water distribution in the Middle East.

The Chapter will list the results of renewable energy and categorize the indicators for measures to compare. Until a more reliable source can be discovered, the World Bank is the one referenced for measures and scales. Top journals introduces a tangible paper to sum the industry up.

The author works with A & E companies to get the costs for the feasibility study. Investors like to see a pattern of success before investing. "Vision 2030" and Global Networking will be used as a case study.

Global Networking helped build the pathway for Artificial Intelligence with Japan and the cure for eczema increased revenue by \$8. Trillion dollars. Global Networking created the discovery and design for higher education internationally internally. Commonality and interest can be reached it can improve the wealth of the displaced areas desperate for quality water.

This will generate a more pleasant lifestyle forwhat are used to and allow for peace amongst rivals. Once areas are developed with infrastructure and wealth increases it takes a utilitarian approach and will improve physical and mental health. Geopolitical risk will be examined and tested for validation of hindering water distribution.

The investigation was completed using an A journal and an expert, Jack Woo. Jack is a successful attorney family-oriented person putting his kids through college and one earns over \$1MM a year with his first job earning \$100,000. a year. Jack explains investing with no emotional attachment, where people are controlling the distribution such as bottled water versus municipal water.

As Jack mentions, taxing the wealthy is what the US has in its strategy. The wealthy are not dumb and no way will just transfer the money. Jordon is showing depletion of the Middle Class.

Some believe the size of the Middle Class was decreased, after the Jordanian family the deterioration of economic conditions resulting from low economic growth rates and high unemployment rates (Aljaloudi, 2021.p.1). The goal of this chapter is to complete a feasibility study with a cost analysis explaining the opportunities, benefits, and risks. The author will cover different theories and methodologies being implemented throughout history and today.

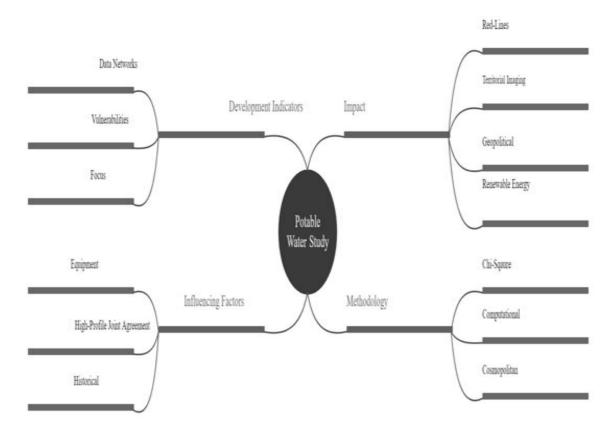
Geopolitical, historical, governance, bureaucracy, water inequality, to create quality water distribution will be measured. White spacing and gaps are explored. Conflict resolution and transformation are analyzed by investigating geopolitical.

The hypothesis is being implemented to test findings. Journals will be presented showing the results of which disruptions present threats. Water scarcity will no longer be an issue for deprived areas and increased wealth will be a result.

De-securitization will be employed to get to the root of the issues. "Vision 2030", and investigate the common vision with the cross-border environment and peace building. A description of who controls the decision making will be included.

Table 5

Framework



According to the United Nations, a country is defined as 'water scarce 'if it has 1000 cubic meters or less of water available per capita per year (Hoummaidi, 2022.p.1). Populous cities with more than three million people, Dubai relies on the desalination plants, which consists of 98.8 percent of its water supply (Hommaidi, 2022.p.1). The UAE is the world's third-largest consumer of water, despite its arid climate and lack of renewable water sources (Hommaidi, 2022.p.1).

Title Searches, Articles, Research Documents, and Journals Researched

A robust methodology is essential to process the heterogeneous data inputs efficiently and accurately, particularly the high-resolution remote censoring imagery acquired for automatic generation of available water to everyone (Hommaidi, 2022.p.1). A flowchart is shown showing the overall design of methodology and statistics on water usage, in the last phase, the ModelflowMap solution was used to analyze the groundwater and soil data to produce an atlas of aquifers in Dubai (Hommaidi, 2022.p.1). Tools to advance automation are implemented such as the design, collection, geospatial analysis, and the cartography of thematic maps and charts through advanced geoprocessing python scripts, including the desktop, web and mobile modules (Hommaidi, 2022, p.1).

The article," Understanding Stakeholder Synergies Through System Dynamics, Integrating Multi-Sectoral Stakeholder Narratives into Quantitative Environmental Models," found on Research Gate, illustrates stakeholders and explains how one variable will affect variable (Tiller et al, 2021, p.7). The Ad Hoc approach builds the relationships of data, networks, co-sharing, partnerships, experts, and wealth to ensure quality water is available to everyone. Plentiful of cited articles lackluster and less impactful with attention towards agriculture and chemical processing.

The article is a blueprint identifies the mainmethodologies and research techniques for the framework. The goal of the article is to design a comprehensive scope with value and synergy with delivering a new approach with Artificial Intelligence and adding historical context. The article assists in answering the question, "Are any links missing and is the strength of relations correctly represented" (Tiller et al, 2021.p.7)?

Emphasis is on the progression of the research methods, theories, and a change in practice over time (Randolph, 2009.p.4). This is amethodologically and empirical paper (introduction, method, results, and discussion) (Randolph, 2009. p.4). The author begins with an introduction, defines the method, and historically the results moves on to discussion formats (Randolph, 2009.p.4).

China is inching strongly towards the top of the global order by a vision adopted by the Communist Party to turn China into a middle-level advanced country by 2035 and a superpower matching the United States by 2050(Saqr Alsulami,2021p.1). The United States maintains a strategic military presence in the Middle East to protect its interests (Saqr Alsulami,2021p.1). It partnered with the Gulf states to extract and export oil in the past it is among the biggest trading and investment partners to countries in the region (Saqr Alsulami,2021p.1).

The region depends on it to provide high-tech services and products such as industrial, medical, technological, and consumer equipment as well as machinery, transportation, and spare parts (Saqr Alsulami, 2021p.1). Meanwhile, US investments in the Middle East reached \$75 billion (about \$230 per person in the US) during the period from 2009 to 2019 (Saqr Alsulami, 2021p.1). This is classed by some as a form of a "soft military presence" to protect its trade movements within key strategic corridors (Saqr Alsulami, 2021p.1).

Chinese investments in the Middle East and North Africa reached \$197 billion (about \$610 per person in the US) during the period from 2005 to 2020 (Saqr Alsulami,2021p.1).Along with this growing technologicalinfluence, China's influence is growing via its Belt and Road Initiative, which strengthens its presence on the ground in the region (Saqr Alsulami,2021p.1). Owing to its geostrategic location and its rich energy resources, the Middle East receives much attention from global powers, despite the divergent visions and political ideologies (Saqr Alsulami,2021p.1).

The funds for water distribution arethrough indicators is from UAE Sovereignwealth funds, capital from Gulf equity partners, family offices, The World Bank, Bank of Bahrain, institutional investors, pensions, charities, insurance companies, and endowment funds. Putin has become a player in the Middle East (Durmaz, Habibullina, 2020. *p.*5365). The goal is tothe growing role of the Russian Federation in the Middle East using data and explore the role of economic and energy investments in this process (Durmaz, Habibullina, 2020. *p.*5365). Results were mixed on the efficiency of sanitation delivery since political factors and administrative characteristics vary across locations (Revilla, Seetharam, Rao, 2021. *p.*2).

Conceptual or Theoretical Framework

In this chapter, the author explores problem formation, data collection, data evaluation, analysis, interpretation, and public presentation (Randolph, 2009p.4). With a few modifications, what one knows about conducting primary research applies to conducting secondary research (literature review) (Randolph, 2009p.4). The key components are (a) a rationale for conducting the review, (b) research questions or hypothesis guide the research, an explicit plan for collecting data, including how units will be chosen, (d) an explicit plan for analyzing data, and (e) a plan for presenting data (Randolph, 2009. p.4).

Table 6

		ENERGY SU	JPPLY		
Stage Characteristics	Problem Formulation	Data Collection	Data Evaluation	Analysis and Interpretation	Public Presentation
Research questions asked	What evidence will be included in the review?	What procedures will be used to find relevant evidence?	What retrieved evidence will be included in the review?	What procedures will be used to make inferences about literature as a whole?	What information will be included in the review report?
The primary function in review	Constructing definitions distinguish relevant from irrelevant studies.	Determining which sources of potentially relevant sources to examine.	Applying criteria to separate "valid" from "invalid" studies.	Synthesizing valid retrieved studies.	Applying editorial criteria to separate important from unimportant information.
Procedural differences create variation in review conclusion	Narrow concepts might make review conclusions less definitive and robust. Differences in operational detail.	Differences in the research contained in sources of information.	Differences in quality criteria. Differences in the influence of non- quality criteria.	Differences in the rules of inference.	Differences in guidelines for editorial judgment.
(Randolph, 2009.p.5).					

Table 7

NTPC Ltd e-bid behalf of International Solar Alliance (ISA)

NTPC Ltd invites e-bid on behalf of International Solar Alliance (ISA) from eligible bidders from ISA member/signatories countries for supply, installation and commissioning for solarization of buildings at Fiji, Comoros, Malawi, Uganda and Mauritius (NTPC, Ltd, 2022.*p*.1). The Project shall be financed by ISA as per provisions of Grant Agreement (NTPC, Ltd, 2022.*p*.1). Chartered account shall be considered acceptable

(NTPC, Ltd, 2022.*p*.1). "Holding Company" and "Subsidiary" shall have the meaning ascribed to Companies Act of domicile country of the bidder (NTPC, Ltd, 2022.p.1).

Table 8

Bids

IFB	30.06.2022			
Last Date for receipt of queries from prospective	11.07.2022			
Bidders.				
Last date and time for receipt of bids comprising both	01.08.2022			
Techno-Commercial Bid and Price Bid				
Date & Time of opening of Techno-Commercial Bid	02.08.2022			
(Envelop-1)				
Date & Time for opening of Price bid (Envelop-11)	Shall be intimated after opening of Techno-			
	Commercial bid.			
Cost of Bidding and Bid Security are NIL (NTPC, Ltd, 2022.p.1).				

Research Comparison

Conceptual maps were designed from each sectoral causal loop diagram, capturing the system feedback structures across the sectors (Tiller et al, 2021.p.2). Today, a meta-analytical review has taken the forefront (Randolph,2009. p.8,9). In a meta-analytical review, the reviewer (a) collects a representative or a comprehensive sample of articles, (b) codes those articles according to aspects (study quality, type of intervention used, type of measure used, study outcomes), finds a common metric (standardized mean difference effect size) allows outcomes to be synthesized, and (d) examines how the characteristics of a study conveywith study outcomes (Randolph, 2009.pp.8,9).

With oil prices dropping are seeking alternative investments. The participation of the private sector, through public-private partnerships (PPPs), has been considered an alternative effective method for increasing the efficiency and productivity of urban infrastructure development (Tamosaitiene, Sarvari, Chan, Cristofaro, 2020.*p*.1). Per capita resource levels are political settlement tends to be more constrained –rulers are threatened by the private sector-autocrats tend to restrict private sector development to prompt or suppress threats from outsiders (Tamosaitiene, Sarvari, Chan, Cristofaro, 2020.*p*.1).

Results show technical and organizational barriers and risks were perceived as the private sector participation, followed by economic, financial barriers, risks, and political and legal barriers (Tamosaitiene, Sarvari, Chan, Cristofaro, 2020.p.1).The top 12 development journals published 18, 329 papers during the period 2000-2020 (Revilla, Seetharam,Rao, 2021.p.2).The data evaluation findings proved TheWorld Bank has a reliable, significant, and accurate database (Randolph, 2009, p.8).

The data was extracted for population growth and funding. The information entered the main body of the dissertation (Randolph, 2009, p.7). The literature review, is the extraction of additional types of data to identify the factors may influence research outcomes (Randolph, 2009, p.7).

In the experimentalresearch, the reviewer's coding book will extract from each article the measurement instruments used: the independent, dependent, and mediating/moderating variables investigated; the data analysis procedures; the types of experience controls; and data (Randolph, 2009.p. 7). High-quality and low-qualitystudies and reporting the difference between the two (Randolph, 2009.p.7). The goal of reviews is to synthesize research outcomes (Randolph, 2009.p.7).

The literature review, combined with the research problem will lead to the formulation of an empirical research question, "Can Deep Sea Water Be Processed into Potable Water and Distributed into the Middle East?" (Randolph, 2009.p.8). There is a meaningful contribution to knowledge in the field (Randolph, 2009.p.8). Meta-Analysis is used to synthesize and analyze a body of quantitative research (Randolph, 2009.p.9).

Independent variable:

State-of-the-art water innovation study.

Dependent Variables:

- **Financial and Environmental Risks** Managing financial risks encompasses the identification, assessment allocation, and practical controls designed and implemented by the project manager together with the relevant stakeholders of the project (Akomea-Frimong, Jin, Osei-Kyei, 2021.*p*.2).
- Indicators- The indicator tracks hostile volatility in inflation, shortages of investment capital, high-interest charges, ever-increasing construction material costs, and huge cost overrun from delays in completion for the project (Akomea-Frimong,Jin, Osei-Kyei, 2021.*p*.2). Financial risks are assessed based on the occurrence and severity of consequences with statistical and nonstatistical tools (Akomea-Frimong,Jin, Osei-Kyei, 2021.*p*.2).
- **Geopolitical**-A debate raised during the severe drought recorded in the region in the long term (Al-Masri, Spyridopoulos, Karatzas, Lazari, Tryfonas, 2021.*p*.2). This debate was raised during the severe drought

recorded in the region in the late nineties, when Israel claimed rainfall was not sufficient to provide Jordon with the amount of water as stated in the water agreement between Jordon and Israel, as a component of the Peace Treaty signed in 1994 (Al-Masri, Spyridopoulos, Karatzas, Lazari, Tryfonas, 2021.*p.*2). People believe water is a 'human right' and a commodity to be provided or granted (Al-Masri, Spyridopoulos, Karatzas, Lazari, Tryfonas, 2021.*p.*2).

Historical Overview

The expertise US scientists, farmers resource managers, and experts had developed over decades of intensive colonial expansion and settlement in the desert Southwest was essential to how and the political allies narrated the special fit with the needs and interests of State builders in the Arabian Peninsula (Koch, 2021. p.90). Among these skills were how to build elaborate irrigation and pumping networks, and a keen understanding of the political and symbolic power of water in the desert (Koch, 2021. p.90). Electricity generation from marine technologies increased an estimated 13% in 2019, which above is the levels of the previous three years (IEA,2021. p.1).

Table 9 Energy Supply

The accelerating pace of energy usage determines infrastructure. Gas consumption in Saudi Arabia, Qatar, Kuwait, and the UAE surged by 50% between 2002 and 2008 (Vivien, 2022.p.1). According to the Energy Information Administration, in 2020, renewable sources of energy represented 12% of total primary energy consumption (Vivien, 2022, p.1). In the Gulf Cooperation Council (GCC) region, global energy prices have been high for the last decade, and income from oil and gas exports are at record levels (Vivien, 2022, p.1).

ENERGY SUPPLY, 2018					
Middle East	31 375 235				
Islamic Republic of Iran	11 444 635				
Saudi Arabia	8 945 734				
United Arab Emirates	2 650 753				
Qatar	1 635 785				
Kuwait	1 477 439				
Oman	1067169				
Bahrain	599 946				
(IEA,2021. p.1).					
· ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '					

According to the International Renewable Energy Agency IRENA, clean energy could meet 90% of the CEO emissions reductions required to meet the goals of the Paris Climate Agreement (Exartier, 2022.p.1). Expanding the energy mix means opening up the collaboration of private partnership (Exartier, 2022.p.1). Qatar, Saudi Arabia and the UAE have all agreed to technology adoption (Exartier, 2022.p.1).

More advanced, and an investigation will be done to evaluate the results of the theory. The authors investigate approaches by Rice University. Air conditioning systems provide a constant source of clean, cold water is well-suited for reuse (Rice University, 2021.p.1).

In the fall of 2008, Rice began capturing condensate water from the air conditioning systems of the Biosciences Research Collaborative to use as make-up water in the cooling towers of the South Plant (Rice University, 2021.*p*.1). Combined, these systems are estimated to save at least 12 million gallons of water per year, which is equivalent to about 5 to 6 percent of Rice's annual water consumption in a typical year (Rice University, 2021. *p*.1). This argument causes people to react in cases of water shortages or a decrease in the supply and justify the actions by claiming securing water is a right (Al-Masri, Spyridopoulos, Karatzas, Lazari, Tryfonas, 2021.*p*.2).

Chapter Conclusion

The Paris Agreement and the Middle East Vision 2030 Agenda on Sustainable Development, encompasses the 17 Sustainable Goals (SDGs), were both acquired in 2015 (Lacobuta et al., 2022.p.1). Pledges in Nationally Determined Contributions (NDCs) of parties are still for from the Paris Agreement goal of limiting global temperature increases to well below 2' and striving for 1.5'C, on the international stage, countries agreed to mobilize US \$100 billion annually by 2025 (Lacobuta et al., 2022.p.1). The 2030 agenda for sustainable development worldwide requires an estimated US \$5-7 trillion annually (Lacobuta et al., 2022.p.1).

Increasing financial effectiveness and ownership of climate and sustainable development actions requires alignment between donor countries finance and recipient countries, priorities, including focus on mitigation verses adaption (Lacobuta et al., 2022.p.1). Green humanitarian project of distributing & consumption of water and renewable energy throughout the Middle East will be evaluated. Creating a new balance of power and removing the restrictions placed by the unipolar world order: it is in the interest of middle powers and small states is a shift from a unipolar world order to a multipolar one (Saqr Alsulami, 2021 p.1).

Advancing the strategic independence of Middle Eastern countries: considering what analysts describe as a new world order taking shape- the emergence of US and Chinese camps- is an opportunity for regional countries to advance the strategic independence and to boost the strategic partnerships so are not compelled to choose between the two camps or pay part of the price amid a possible cold war (Saqr Alsulami,2021p.1). Problems have been encountered on PPP initiatives in Nigeria, in the North Central region where PPP infrastructure projects have experienced challenges and failures as a result of stakeholders' opposition and disagreements arising from the neglect of stakeholder's interest (Yusuf, Bashir, Luqman, Abdulganiyu, 2021p.145).Intrastate tension takes place which increases dispute between riparian countries and expands interstate conflict (Al-Masri, Spyridopoulos, Karatzas, Lazari, Tryfonas, 2021p.2).

Chapter Summary

Indicators are imperative in order to know the increase or decrease in renewable energy. If the measures indicate an increase in renewable energy, then there is a chance water distribution is possible and increased investment opportunity is an option. Ensuring the rapid deployment of AI technologies will be essential in forecasting economic growth for the next 5-10 years (The Royal Society, 2022.p. 1).

The data on the water demand and supply from water rights to the Jordon River Basin is meant to provide an empirical dimension to the ongoing political dispute (AbuA-Foul,2022, 443). Different plans have been proposed to allocate the river Jordon water among the riparian states (AbuA-Foul,2022.p.443). Develop a conceptual framework upon which an effective strategy to minimize PPP infrastructure projects failure through effective stakeholders'management amidst well designed institutional and regulatory framework and a conducive investment climate (Yusuf, Bashir, Luqman, Abdulganiyu, 2021, p.145). Ouestions.

- What is the size of the contract?
- What is the duration of the contract?
- What is the deal for obtaining a letter of intent?
- *Is strong societal license available to operate* (Brekelmans, 2018.p.1)?
- Are indicators more beneficial than the regulatory system?
- How batches of data can be analyzed at what speed?
- *How can more for each dollar spent* (Brekelmans, 2018.p.1)?
- "How much of the world's or a country's endowment of non-renewable resources is fair for the generation to use up, and how much will be left for generations to come who have no active voice in contemporary decisions "(Dixon, Monk, 2011.p.1)?
- How can best include stakeholders in this mathematical modeling processes distanced fromlocal realities, though, and ensure a higher probability of future compliance with top-down global decisions may have local consequences once implemented "(Tiller, 2021.p. 1)?

"How does one design and govern an SWF so it will achieve its objectives" (Dixon, Monk, 2011.p.3).

- "Which governance practices, in particular, are crucial for success" (Dixon, Monk, 2011.p.3)?
- Available material has been saturated it is to recommend future research. The question, "Are any links missing and if the strength of relations was correctly represented"?
- The funding for water desalination through the Middle East is from,
- Prestigious Development
- Building High Tech Projects
- ADB Loan
- Asian Development
- Ministry of Finance
- Production Sharing Agreements
- Exploration and Development
- Cloud Funding
- Blue Bonds
- Bahrain
- Sovereign Wealth Fund Institute
- The World Bank

Updates to research are needed in situations of crisis such as the pandemic, oil and gas declining, Republican wealth pulling out. When these issues transpire it can destroy relevant intention. The resolution will be for everyone to have a common goal and express the urgency on such a critical issue.

"Can anyone live without water"? Much of Vision 2030 revolves the idea of building Saudi Arabia into a global transportation and tourism hub, connecting Europe, Arica, and Asia (World Finance, 2020.p.1). The spread of

SARS Co V-2 has blighted the transport industry: air travel, for example, is not expected to return to 2019 levels until at least 2023, according to the International Air Transport Association (World Finance, 2020.*p*.1).

Research Methods

Research Method and Design Appropriateness

"Convergence" is related to a deeper level of integration regionally and globally (Countries with strong linkages tend to operate with similarities and integrated the same policies of another country (Exartier, 2022.p.1). "The tendency of societies to grow more alike, to develop similarities in structures, processes, and performances", (Exartier, 2022.p.1). This synopsis acknowledges there is an opportunity if one process works well for another it may work well for the one trying; example, AI in Dubai, Minister led.

Hypothesis, found in the operations research and computer science communities, is with the wide availability of data and advances in computing technology, algorithmic forecasts offer the opportunity to support humans by mining large data sets and learning patterns and trends from data (Zellner, Abbas, Budescu, Galstyan, 2021. P.2). Popper's methodological prescriptions are opposed to "naïve collectivism" and the conspiracy theory of society, the main task of the social sciences is to trace the unintended effects of purpose actions" (Baert, 2005, p.77). Naïve collectivism assumes the social sciences study social wholes such as social classes on nations (Baert, 2005, p.77)

Research Method

The investigation incorporates revenue driven, holistic approach, time series analysis, and integrating simulations. The tests are to eliminate biases and de-risk geopolitical. Research questions are selected implementing epistemological, ontological positioning (Creswell, 2009, p.28).

The revenue driven approach indicators are intended to alert for,

- High interest
- Renewable energy
- Manage risks
- High portfolio debt
- Regulation
- Sovereign wealth funds
- Technology deployment

Contracts are analyzed mega projects, free trade agreement, and trade and investment framework agreement. Technology focused on is,

- Computer science
- Artificial Intelligence
- Synthetic Intelligence
- Network Databases
- Computational
- Operational research

The geopolitical areas are Golden Triangle, Economic Zone and the Red Sea. Information is shared with Saudi-US CEO Forum-Create Partnerships. Results show an almost 10-fold increase in the application-focused forecasting literature between the 1900s and the decade, with a clear rise of quantitative, data-driven forecasting models (Zellner, Abbas, Budescu, Galstyan, 2021 p.1). Cooperative studies of quantitative methods and human judgment show (1) neither method is universally super, and (2) the better method varies as a function of factors such as availability, quality, extent, and format of data, suggest (3) the two approaches can complement each to yield more accurate modes (Zellner, Abbas, Budescu, Galstyan, 2021p.1).

Design Appropriateness

The design has been implemented to achieve financing integrating revenue driven and the holistic approach. The models investigated,

- Building Information Modelling (BIM)
- Augmented Realty (A/R)
- LoT Data Applications
- Digital Orientation
- Internet of Things
- International Investment
- Free Trade Agreement
- Mega Projects
- Transportation Network
- Population
- Class of people, low caliber to professional

- Incomes
- Digital Platforms
- International Trade Adminsitration
- Drones in Construction Fitted with Radio Frequency Identifications RFID
- 360. Video Capturing Technologies
- 3D Scanning Technology
- 3D Painting
- TAM

(Zaia, 2022.p.1).

The indicators are investment, growth rate, landowners, technology, and unemployment. A concentration on sovereign wealth funds, phenomenology, ethnography, grounded theory of case studies, gaps, data networks, high-profile joint agreement, geopolitical, renewable energy, chi-square, and cosmopolitan. The goal of the article is to design a comprehensive scope with value, synergy, computation, and deliver an innovative approach with artificial intelligence.

Machine learning is the form of narrow Artificial Intelligence which allows machines to learn from data has enormous potential to transform urban life (The Royal Society, 2016.p.1). Machine learning is already being used in the energy sector to optimize power grids and will support decarbonization by providing utilities (The Royal Society, 2016.p.1). Machine learning will track waste levels in recycling bins and tailor collection services based and waste predictions (The Royal Society, 2016.p.1).

- Blueprint for methodology and framework.
- Background of the study.
- Problem statement.
- Purpose of the dissertation study.
- Significance of the study.
- Nature of the study (Capitol Technology, 2022.p.1).
- Denoting excellence.
- Potential for publishing.
- Organization of the dissertation.

Population, Data Collection Procedures, and Rationale

The Middle East partnered with a team from the U.S. National Aeronautics and Space Administration (NASA) DEVELOP program in 2016 to enlist satellite data as consider where and what to build next (WRAP, 2018.p.1). To find these rainy spots, the team considered such factors as historical precipitation, availability of groundwater, and evapotranspiration- the amount of water evaporating from surface-level vegetation increases moisture in the atmosphere (WRAP,2018. p.1). China's positions are based on respecting national sovereignty and not interfering in internal affairs (Saqr Alsulami,2021p.1).

A comparison of three years analyzing scales and measures for,

Electricity per Capita

Installed Electricity Capacity

Generation and Average Capacity

High Interest

Renewable Energy

High Portfolio Debt

Sovereign Wealth Funds

Technology Deployment

In addition to the traditional unit roots tests (DF and ADF), there are other tests in the literature, such as that of Zivot and Andrew's (Paiva et al, 2022.p. 2). The structural break is identified and the unit root tested with the possibility of breaking, being that test considers only the possibility of structural break in the alternative hypothesis (Paiva et al, 2022 p.2). According to Shikida et al. (2016) the Zivot and Andrew's test verifies the relationship between unit root and structural break, allowing the endogenous estimation of the structural break (Paiva et al, 2022.p.2).

Table 10 *ALLOCATION of DIFFERENT PLANS & RESOURCES*

Visión 2030 rec	d sea Dead Sea						
The Water Acti	ion Project, Inc Wrap	(WRAP)					
Tropical Rainfa	all Measurement Mis	sion (TRMM)					
Global Precipit	ation Measurement (GPM)					
Table 1: Ratio	of Water Demand to	Supply, Per Capita Water Availab	ility in 19	90, 2000	, and in 2025	5, and Population in	
2000 and 2010	in Jordon & Israel (A	AbuA-Foul, 2022.p.1).					
Country	The ratio of			Total Po	opulation	Population Growth	

	Water Demand to Supply				(Millions)	Rate (annual %)
Jordon	110	260	143	80	3	3
Israel	110	470	449	310	2	2
(AbuA-Fo	oul, 2022.p.1).	•			•	<u> </u>

TABLE 10:

	CONTRACT	TABL		DDDVE	
	CONTRACT	AWAR	DED BLUE	PKINI	
Contract Awarded			4 11:		
Blueprint	Comp	pany	Alliances	Ter	ms
Geography					
	Saudi PIF	Al-Kr Allian	orayef	SR 579	Riyadh
	(Public Investme		h Veolia	million/7 Years	
	nt Fund)		Miahona	rears	
	owned	Allian			
	National		h Group		
	Water	Saur	ii Gioup		
	Company	Philip	nine		
	(NWC)	Comp			
	(2,1,1,0)		awater		
		1,141111			(Arab
					News,
					2021. P.1).
The Red		Source	e Water	Budget	Saudi
Sea/Dead Sea		Comp	any	Cut from	Arabia
				\$50.M to	
				\$8.M/%	(World
				Years	Finance,
					2022.p.1).
Schlumberger		Saudi	Armaco		Schlumberg
					er, 2017
UAE Net-Zero			Energy		
Emissions by		Strate	gy 2050		
2050					
UAE Water					
Security Strategy					
2036		0	Calan		Middle East
Korean		Oman	Solar red Water		Middle East
Company Prosave			red water ination		
rrosave			roject		
Red Sea Farms	Research	Kaust	-		
Red Sea Failis	Product		ation Fund		
	developm	IIIIOV	auon rund		
	ent				
	Company				
	(RPDC)				
	(Ki DC)	l		l	

WEC type	Capacity factor (CF) (%)	Location	Reference
10 kW point absorber	~30 (utility factor)	Baltic Sea	[104]
AquaBuOY	3.65-8.39	Italy	[80]
	3.7-8.7	Italy	[81]
	1.33-8.44	Italy	[28]
	~2-2.5*	Italy	[<u>42</u>]

WEC type	Capacity factor (CF) (%)	Location	Reference
	~5	Lebanon	[<u>76</u>]
	8.2-9.1	Spain	[77]
	6–9	Greece	[133]
	0.44-2.48	Mediterranean/Black Sea	[134]
	8.4–9.5 (winter)	Black Sea	[124]
	31-33 (downscaled)	Mediterranean	[78]
	6.8 and 26.2 (downscaled)	Turkey	[127]
AWS	1.6-4.5	Italy	[80]
	0.37-4.96	Italy	[28]
	~1-1.2*	Italy	[42]
	2.1–21.1 (downscaled)	Italy	[79]
	0.72-2.77	Mediterranean/Black Sea	[134]
	24-28 (downscaled)	Mediterranean	[<u>78</u>]
	2.4 and 21.4 (downscaled)	Turkey	[127]
BOF	5-9	Greece	[133]
Ceto	1.38-3.63	Mediterranean/Black Sea	[134]
F2HB	6–9	Greece	[133]
HeaveBuoy	0.95-4.55	Turkey	[126]
	3.5 and 20.6 (downscaled)	Turkey	[<u>127</u>]
ISWEC	~14-15.5*	Italy	[42]
Langlee	~2-2.1*	Italy	[42]
	12-13 (downscaled)	Mediterranean	[<u>78</u>]
	4.9 and 9.4 (downscaled)	Turkey	[127]
Langlee Robusto	~19.5*	Italy	[42]
Oceantec	~7.5-8*	Italy	[42]
	~0-15*	France	[<u>132</u>]
	3.62-11	Mediterranean/Black Sea	[134]
	14.4-25	Turkey	[126]
	21.9 and 41.8 (downscaled)	Turkey	[127]
OE Buoy	~2-2.2*	Italy	[42]
	19-21 (downscaled)	Mediterranean	[78]
	4.1 and 17.5 (downscaled)	Turkey	[127]
	1.27-3.63	Mediterranean/Black Sea	[134]
Oyster	10.99 (upscaled)-19.58	Italy	[7 9]
	3.44-16.93	Turkey	[126]
	12.5 and 44.1 (downscaled)	Turkey	[127]
Oyster 2	7	Turkey	[126]
	4.2 and 26.3 (downscaled)	Turkey	[127]
Pelamis	4.5-8.46	Italy	[80]
	4.2-9.4	Italy	[81]

WEC type	Capacity factor (CF) (%)	Location	Reference
	0.87–8.66	Italy	[28]
	~6	Lebanon	[76]
	9.7–10.4	Spain	[77]
	~3-3.5*	Italy	[42]
	~4–11.5 (downscaled)*	Greece	[<u>23</u>]
	8–16	Greece	[133]
	1.41-6.34	Mediterranean/Black Sea	[134]
	11.9–13.07 (winter)	Black Sea	[124]
	39-42 (downscaled)	Mediterranean	[<u>78</u>]
	7.5 and 33.7 (downscaled)	Turkey	[127]
Pontoon	5.84-14.5	Mediterranean/Black Sea	[134]
	~2.5-2.7*	Italy	[42]
	15-17 (downscaled)	Mediterranean	[78]
	6.0 and 12.1 (downscaled)	Turkey	[127]
Seabased	~4-4.5*	Italy	[42]
	~0-7.5*	France	[<u>132</u>]
	3.25-10.03	Turkey	[126]
	10 and 23.2 (downscaled)	Turkey	[127]
SeaPower	20-21 (downscaled)	Mediterranean	[<u>78</u>]
SSG	0.89-4.25	Turkey	[126]
	2.9 and 14.9 (downscaled)	Turkey	[127]
Wavebob	~7.5-8*	Italy	[42]
	~0-3*	France	[<u>132</u>]
	1.37-3.51	Mediterranean/Black Sea	[134]
	32-34 (downscaled)	Mediterranean	[<u>78</u>]
	6.8 and 28.3 (downscaled)	Turkey	[127]
Wave Dragon	3.9-8.8	Italy	[81]
	3.24-7.72	Italy	[28]
	~4	Lebanon	[<u>76</u>]
	10.2–10.8	Spain	[77]
	~2-3*	Italy	[42]
	13.11–44.17 (downscaled)	Italy	[79]
	~0-7.5*	France	[<u>132</u>]
	11–16	Greece	[133]
	1.96–6.77	Mediterranean/Black Sea	[134]
	8.2–27.8 (winter)	Black Sea	[124]
	6.4 and 38.7 (downscaled)	Turkey	[127]
Wavestar	16.6 (upscaled)-23.65 (600 kW)	Italy	[79]
	~12.5–18 (downscaled)*	Greece	[23]
	13-20	Greece	[133]

WEC type	Capacity factor (CF) (%)	Location	Reference
	1.26-4.86	Mediterranean/Black Sea	[134]
	1.31-3.73	Turkey	[126]
	3.8 and 6.6 (downscaled)	Turkey	[127]

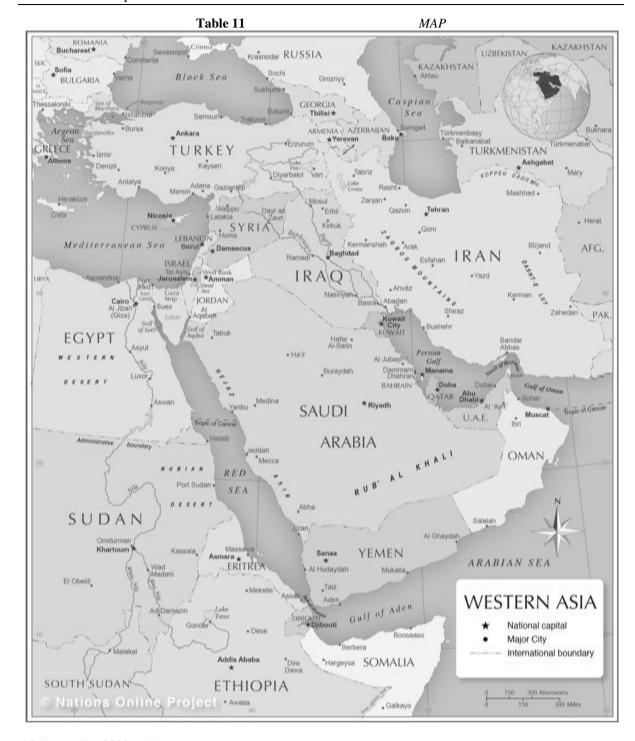
(Foteinis, 2022.p.1).

Dubai Climate Summit, will be doubling the funding commitment from \$4 billion to \$8 billion, AIM announced another six countries (Chile, Costa Rica, Egypt, Guyana, Mozambique and Turkey) have joined the initiative already boosts 140 government and non-governmental partners, making it the world's leading effort to clean up agriculture (Williams, 2022.p.1). Chairing the agriculture innovation mission for Climate's (AIM for climate) first ministerial meeting in Dubai on Monday (21 February), U.S. Secretary of Agriculture, Tom Vilsack, said much of the funding will go towards cutting edge areas of "agritech" such as "nanotechnologies, biotechnologies, robotics and AI" (Williams, 2022.p.1). Korean-Omani pilot project for solar-powered water desalination is being implemented by the Korean company Prosave in a farm owned by a citizen in the village of Al Nabra in the Suwaiq Wilayat in the North Al Batinah Governorate (Muscat, 2021. p.1).

United Arab Emirates -Federal Absolute Monarchy

The overall strategy is to reduce the demand for water resources by 21 percent, increase the water productivity index to USD 110 per cubic meter, reduce the water scarcity index by three degrees, increase the reuse of treated water to 95 percent and increase national water storage capacity up to two days (Telecommunications and Digital Government Regulatory Authority, 2022. p.1). In September 2017, Ministry of Energy and Infrastructure unveiled the UAE water security strategy 2036, which aims to ensure sustainable access to water during normal and emergency conditions in line with local, regulation, standards of the World Health Organization, and the UAE's vision to achieve prosperity and sustainability (Telecommunications and Digital Government Regulatory Authority, 2022. p.1). The strategy includes the establishment of 6 connecting networks between water and electricity entities across the UAE (Telecommunications and Digital Government Regulatory Authority, 2022. p.1).

Water networks will be able to provide 91 liters of water per person per day in cases of emergency, or 30 litres per person per day in cases of extreme emergencies (Telecommunications and Digital Government Regulatory Authority, 2022. p.1). Once implemented, the water security strategy 2036 will achieve savings of AED 74 Billion and reduce the emissions of carbon dioxide (CO2) associated with water desalination process by 100 million metric tons (Telecommunications and Digital Government Regulatory Authority, 2022. p.1). The project which is sponsored by the Korean Ministry of Environment, is one of the pioneering projects abroad being supported by KISA's and the KOTRA global green initiative, and aims to solve water shortage problems in countries suffering from water crisis, especially in the Middle East (Muscat, 2021.p.1).



(Nationsonline, 2022. p.1).

Table 11

Water Usage

PER CAPITA ANNUAL RENEWABLE FRESH WATER (M2)

% OF FRESHWATER USE, BY SECTOR

	1970	2001	2025	DOMESTIC	INDUSTRIAL
		_	_		
MENA ^a	3,645	1,640	1,113	8	5
Algeria	1,040	462	331	25	15
Bahrain	455	140	97	39	4
Egypt	2,460	1,243	903	6	8
Iran	4,770	2,079	1,555	6	2
Iraq	10,304	4,087	2,392	3	5
Israel	740	342	247	16	5
Jordan	555	174	103	22	3
Kuwait	27	9	5	37	2
Lebanon	1,944	1,120	896	28	4
Libya	302	114	72	11	2
Morocco	1,960	1,027	741	5	3
Oman	416	206	5	2	94
Qatar	901	170	129	23	3
Saudi Arabia	418	114	59	9	1
Syria	7,367	2,700	1,701	4	2
Tunisia	800	422	327	9	3
Turkey	5,682	3,029	2,356	16	11
United Arab Emirates	897	60	44	24	9
Yemen	648	228	103	7	1

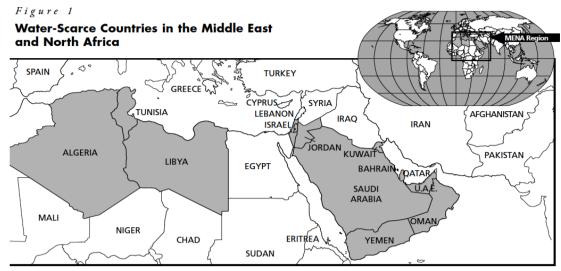
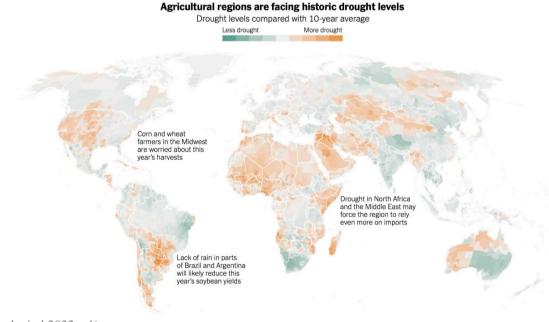


Table 10. Water Scarce Countries in the Middle East and North Africa (Population Reference Bureau, 2022.p.1).

Fig 12Agricultural Regions



(Geschwind, 2022.p.1).

Table 13

Population

% OF POPULATION WITH ACCESS TO SAFE WATER

% OF POPULATION WITH ACCESS TO ADEQUATE SANITATION

	TOTAL	URBAN	RURAL	TOTAL	URBAN
MENA ^a	84	93	79	86	95
Algeria	89	94	82	92	99
Bahrain	_	_	_	_	-
Egypt	97	99	96	98	100
Iran	92	98	83	83	86
Iraq	85	96	48	79	93
Israel	-	-	-	_	-
Jordan	96	100	84	99	100
Kuwait	_	_	_	_	-
Lebanon	100	100	100	99	100
Libya	72	72	68	97	97
Morocco	80	98	56	68	86
Oman	41	30	92	98	61
Qatar	-	-	_	-	_
Saudi Arabia	95	100	64	100	100
Syria	80	94	64	90	98
Tunisia	80	92	58	84	96
Turkey	82	82	84	91	98
United Arab Emirates	_	_	_	-	-
Yemen	69	74	68	38	89

(Population Reference Bureau, 2022.p.1).

27. Population

 Table 14Population

The World Bank reports the population in Israel at 4,587,522 in 2020 (The World Bank ,2021).

Afghanistan	2020	19,976.26
Bahrain	2020	1,100,47
Kuwait	2020	2,614,45
Lebanon	2020	3,435,75
United Arab Emirates	2020	6,836,35
Middle East & North Africa	2020	240,679,66
The Middle East & North Africa (excluding high income)		199,610,78.
		(The World Bank, 2021).

Table 15

Sovereign Wealth Funds' Property Holdings, London Metropolitan Area, March 2021

Company Country Hotel Total

QIA	Qatar	\$3,497,799,566	\$16,529,104,908
GIC	Singapore	\$114,621,535	\$6,990,380,173
ADIA	United Arab Emirates	\$895,195,956	\$4,998,271,588
NBIM	Norway		\$4,996,385,240
Kuwait Investment	Kuwait		\$4,769,841,932
Authority			
CIC	China		\$2,132,623,966
PNB	Malaysia		\$2,069,431,985
Tamasek	Singapore		\$1,975,420,196
Safe	China		\$1,876,667,297
HKMA	Hong Kong, SAR, China		\$812,667,297
Libyan Investment Authority	Libya		\$740,518,294
Mubadala Investment	United Arab Emirates		\$440,171,161
Lembaga Tabung Haji	Malaysia		\$398,669,981
SOFAZ	Azerbaijan		\$326,162,455
Dubai World	United Arab Emiartes		\$270,835,987

(Ward, et al., 2021p.1).

Qatar 2022 Projected Real GDP change 3.4% (International Monetary Fund, 2022.p.1).

2022 Projected Consumer Prices 3.5% (International Monetary Fund, 2022.p.1).

Country population 2.671 Million (International Monetary Fund, 2022.p.1).

Inflation rate, average consumer prices (Annual percent change) 3.5% (International Monetary Fund, 2022.p.1). General government net lending/borrowing (Percent of GDP) 8.5% (International Monetary Fund, 2022.p.1).

Saudi Arabia following the federal regulation is taking impressive steps to improve the business environment, attract foreign investment and create private-sector employment (International Monetary Fund, 2022l.1). Saudi Arabia's Green Initiative is focusing on "Giga Project", with a focus on high returns and greater private sector involvement (International Monetary Fund, 2021.p.1).

Gross and domestic product is expected to expand 7.6 percent (International Monetary Fund, 2021.p.1). Inflation will remain contained at 2.8 percent in 2022 (International Monetary Fund, 2022.p1).

Omani hydrocarbon GDP are estimated to have contracted by 2.8 percent, 3.9 percent (International

Monetary Fund, 2022.p.1). Oil production is expected to increase after the current OPEC+ agreement expires in April 2022, inflation has been subdued (International Monetary Fund, 2022.p.1).

The government debt is rising and a balance plan is being worked on (International Monetary Fund, 2022.p.1). The fiscal deficit widened to 19.3 percent of GDP in 2020, partly reflecting non-policy factors (notably the contraction in nominal GDP) (International Monetary Fund, 2022.p.1). It is projected to decline -2.4 percent in 2021 and a surplus in 2022 (International Monetary Fund, 2022.p.1). Central government debt rose to 81.2 percent of GDP, with financing needs covered by domestic and external borrowing and asset drawdown, but is expected to decline sharply over the medium term (International Monetary Fund, 2022.p.1).

Fiscal consolidation and higher oil prices are projected to narrow the current account deficit to -6.2 percent in 2021 and -0.6 percent in 2026 (International Monetary Fund, 2022.p.1).

Since 1946, the United States has provided an estimated of \$346 billion (about \$1,100 per person in the US) (obligations in dollars) in foreign assistance to the Middle East and North Africa (MENA)region (Sharp, Humud, Collins, 2020. p.1). For FY2021, overall bilateral aid requested for MENA countries amounts to \$6.6 billion (about \$20 per person in the US), or about 15% of the State Department's International Affairs budget request(Sharp, Humud, Collins, 2020. p.1). TheState Department estimates the Middle East stands to receive 42% of the geographical specific assistance in the budget request, more than any region (Sharp, Humud, Collins, 2020. p.1).

As in the previous years, more than 90% support assistance for Israel, Egypt, and Jordon (Sharp, Humud, Collins, 2020. *p*.1). The region also received a sizable portion of annual emergency humanitarian assistance appropriate, which is not included in region-specific aid figures (Sharp, Humud, Collins, 2020. *p*.1). The metrics are green power, climate change, and renewable energy.

The agreements with no real terms. Sukuk is being analyzed for financial stability with industrial investing (Basyariah, Kusuma, Qizam, 2021. p.1). GDP per-capita, exchange rate, and inflation as the proxies for macroeconomic stability sourced from The World Development index, and dimensions of worldwide governance indicators (WGI) as institutional proxies source from WGI- World Bank (Basyariah, Kusuma, Qizam, 2021. p.1). (POP) variable is included as a control variable (Basyariah, Kusuma, Qizam, 2021. p.1).

Today, the Sukuk market represents the economy's wheels and the second-largest Islamic finance industry component after Islamic banking (Basqariah, Kusuma,Qizam,2021. p.1). The government is implementing regulations to force the upgrade into Vision 2030. The Asian Development Bank (2005) revealed among the

essential factors for improving the investment climate are macroeconomic stability and government institutions (Basyariah, Kusuma,Qizam,2021. p.1). Macroeconomic variable as the volatility factor is inflation hurts financial developments (Basyariah, Kusuma,Qizam,2021. p.1).

Stable-economic conditions will positively affect the development of the country's economy and finances (Basyariah, Kusuma,Qizam,2021. p.1). Unstable macroeconomic conditions can be seen from high inflation and a weakening exchange rate will harmthe development of the country's economy and finance (Basyariah, Kusuma Qizam,2021. p.1). Various measures are used as institutional indicators (Basyariah, Kusuma,Qizam,2021.p.1).

Kaufmann et al. 2004, hasdesigned the World Governance Indicator (WGI) by reporting aggregate and individual performance indicators; the six dimensions of governance have encountered been adopted by World Bank and,voice and accountability, Rule of Law,Regulatory Quality Political Stability and Absence(Basyariah, Kusuma,Qizam,2021. p.1). The World Bank approved a US\$15 million grant to the Water Security Development-Gaza Central Desalination Program- Associated Works Phase 1 Project (The World Bank, 2021.p.1). Donors have contributed US\$43 million and members of the Partnership for Infrastructure Development Multi-Donor Trust Fund administered by the Bank, and US60 million in parallel financing from the Kuwait Fund for Arab Economic Development (The World Bank, 2020.p.1).

The project will provide additional freshwater of 30 million cubic meters (MCM) per year to 16 municipalities in the southern and middle governorates of Gaza by supporting the construction and rehabilitation of necessary infrastructure (The World Bank, 2020.p.1). "Almost everyone in Gaza is relying on water from expensive and unregulated small-scale private providers" (The World Bank, 2020.p.1). The Abraham Accords- a joint declaration of the United States, Israel, and the United Arab Emirates, was signed alongside a peace agreement, has never been a state of war or conflict between Israel and the UAE (Bayrak, 2021, p.1).

Geopolitical changes in the Middle East over the last decade have altered the threat perspective of the Arab monarchies (Bayrak, 2021.p.1). Israel and the Arab states due to the ignorance of the Palestinians' interests, are weaknesses of the Accords due to its impatient timing, and its contradiction with the international community, such as the UN, and its disregard of the two-state solution (Bayrak, 2021.p.1). Israel's security has been a building block in the United States '(US) foreign policy decisions with regards to the Middle East (Bayrak, 2021.p.1).

The Abraham Accords promotes the formation of a regional coalition of Israel and the Arab nations are close to the US, and to create a balance of power catalyst regional powers have sought to exert influence on the detriment of Western interests (Bayrack, 2021.*p*.1). The World Bank supports programs and activities in its member countries designed to achieve a positive social and environmental impact in line with the World Bank's twin goals of eliminating extreme poverty and promoting shared prosperity (International Bank for Reconstruction and Development (IBRD, 2021.*p*.1). These "twin goals" are aligned with the Sustainable Development Goals (SDGs) (International Bank for Reconstruction and Development (IBRD),2021. *p*.1).

World Bank bonds are consistent with the sustainability bond guidelines published by the International Capital Markets Association (International Bank for Reconstruction and Development (IBRD), 2021.p.1). A key priority for the capital markets is to build strategic partnerships with investors to raise awareness for the role of private sector financing in sustainable development (International Bank for Reconstruction and Development, IBRD ,2021. p.1). The International REC Standard is built on a list of rules, regulations and best practices set by The International REC Standard Foundation (EWEC,2022. p.1).

Study Rationale

Artificial Intelligence, Synthetic Intelligence and computational alert in crisis and disasters and improve environment forecasts. The images below reveal hurricanes, wildfires, floods, glaciers, fire and deforestation. With surveillance the information is reported in real-time informing of rising sea levels and can cover large areas.

Table 16Statistics

2016 Water Underground –Millions	56,698.91
of Gallons	
Fisheries 2015	12,215.00
Electricity	17,067.78
Produced Energy (GwH)	(The World Bank, 2021.p.1).

Table 17Methodology Conceptual Design

Planning Research	Research Design	A Journal Source	Data Collection
Accurate	Topography	Regulatory Framework	De-Securitization
State-of-the-Art Water Equipment	White Space	Population Growth	Historical Landowners
Relevant	Public	Mitigating Risk	Geopolitical
Roadmap	Private	Pro Quest	Geographical
Significance	Co-Sharing	Google Scholar	Theoretical Methods
	Defining Terms	Royal Society	Conflict
	Snowball	Stanford	Climate Change
	Mangrove		Conflict
	Synthesis		Political Stability
	Coding		Water Governance
	Hypothesis		Sensitive Political
	Maslow's Theory		Blocks Framework

Table 18Table 5 Terms

O	D. C. din D 1
Quantitative Analysis	Defending Proposal
Feasibility Study	Long-Term Profitability
De-Risking	Memorandum of Understanding
No- Project Results	Phenomenology
Analyzing	Next Literature Review
Chi-Square	Chi-square test can be valid and universally consistent for testing
	independence, and establish a testing power inequality with respect to the
	permutation test (Shen.C etc al, 2021.p.1). The statistical hypothesis for
	testing independence is
	H0: FXY = FXFY, HA: FXY 6= FXFY.
	(Shen.C etc al, 2021.p.1).
Meta-Analysis	A review technique in which the primary goal is to integrate quantitative
	outcomes across studies (Randolph, 2009.p.3).
Questions	The questions guide the literature review (Randolph,2009p.3). The
	questions are influenced by the goal and focus of the review
	(Randolph,2009. p.3). "What are the central theories have been used to
	explain phenomenon X" (Randolph,2009.p.3)?
Rhetoric	Well-developed coherent structure (Randolph, 2009.p.12).
Conservatism	
Bureaucracy	Recent proposals for a Foreign Influence Registration Scheme, for
	example, significantly hamper scientific collaboration between the UK

	countries (The Royal Society, 2022. p.1).
Significance	Recognize, promote, and support excellence in science and to encourage
	the development and use of science for the benefit of humanity, supporting
	international collaboration, demonstrating the importance of science to
	everyone (The Royal Society, 2021. p.1).
Probability	
Theory	
Epistemology	Strategies are able to partially mitigate reasonable doubt, can take a theory regarding the phenomena to be established by experiment (Evans, The Bault, 2020, <i>p</i> .1). Next generation of analogue experiments to provide genuine knowledge of unmanipulable and inaccessible phenomena such the relevant theories can be understood as well as supported (Evans, The Bault, 2020. <i>p</i> .1).
Flux Coupling Analysis	Identify pairs of reaction for which the activity of one reaction necessitates
Influence	the activity (Tefagh, Boyd, 2018.p.1).
Grounded Theory	(The World Bank, 2021.p.1).

Table 19Literature Review Scoring

Category	Criterion	1	2	3
1. Coverage	World Bank, 2021, Verified exclusion and inclusion.	A portion of the information has been used. Transparency needed.	Discussed the funding of Vision 2030.	Explained project details and coverage.
2. Synthesis	ICI Global, (2021), explains de-securitization.	The information assisted in derisking the Middle East.	Geopolitical and co-sharing have been investigated.	It put the Middle East at high risk due to geopolitical.
3.Methodology	Randolph, 2009, Recommended methodologies, graphs & tables.	Research and theoretical methods discussed.	A portion of research techniques was used.	Verified research methods.
	Academic Review Checklist	Guidelines for the dissertation, and institutional progress.	Research methods.	Writing Style and Composition.
4.Significance	The Development Sea Company, (2021), Sets new standards for infrastructure and sustainable water.	Quantitative significance to the research study.	Implemented the new findings to the research.	Appropriateness of the information and research methods to verify the relevance of the research
5.Rhetoric	Faudot, 2019, Explains a regime trap.	The new standard with regulation.	Obtainable results in commonality such as securing protected marines.	Explained the regulation in detail. (Randolph, 2022.p.1).

The Gulf Cooperation Council (GCC) countries, except for Kuwait, relied less on BITs (Kluwer.2020. p.1). This may reflect the fact as resource-rich countries, these states felt less compelled to enter into such binding agreements (Kluwer,2020. p.1). Some of the BITs have been entered into by Arab countries refer to International Center for Settlement of Investment Disputes (ICSID) procedures (Kluwer,2020. p.1).

In Desert Line Projects LLC v Republic of Yemen, which involved an Omani company, the basis of authority was an ICSID clause in the Oman-Yemen BIT 1998, which had been concluded in the Arabic language (Kluwer,2020. p.1). In case, the ICSID Tribune held the conduct of Yemen is pressuring the Omani investor to accept and execute a settlement agreement, instead of a final and binding Yemeni award, accounted to a breach of a provision of the Oman – Yemen by impressing on Oman and Yemen a duty to ensure "fair and equitabletreatment" for the investments of the contracting states investors, and to eschew "legally unjustified measures" (Kluwer, 2020.p.1). The case was in any event discontinued because of a settlement reached between the parties during the proceedings (Kluwer, 2020.p.1).

Validity: Internal and External

Data Analysis 87

Against the limited access to safe drinking water in Gaza, the World Bank today announced a US\$15 million grant to the Water Security Development- Gaza Central Desalination Program – Associated Works Phase 1Project (The World Bank, 2020.p.1). The new project aims to improve the quality and quantity of water in Gaza will benefit from a coordinated aid of US\$42 million from donors' members of the Partnership for Infrastructure Development Multi-Donor Trust Fund (PID MDTF), administered by the Bank, and US60 million in parallel financing form the Kuwait Fund for Arab Economic Development (World Bank, 2020.p.1). The Associated Works project will construct a south water carrier, including storage reservoirs to convey and blend the above-mentioned desalination water along with water purchased from Mekorot (The Israeli national water company) and groundwater sources (W8orld Bank, 2021.p.1).

The article, "Desert geopolitics: Arizona, Arabia, and an arid -lands response to the territorial trap," Lewis and Wigen's article introduces a "maritime" response to these challenges, stemming from a project supported by the Social Science Research Council called Oceans Connect (Koch, 2021. P.1 89). The article takesinspiration from the oceans Connect approach to the challenges of area studies today, as well as the need to rethink the territorially trapped visions of geopolitics beyond the state system (Koch, 2021. P.90). Monitoring and understanding changes in Ecological indicators are needed to support decision-making during the project (Papagiannopoulos, Raitsos Krokos Gittings, Brewin Papadopoulos, Pavlidou Selmes, Groom, Hoteit, 2021, p. 1). NEOM (short for Neo-Mustagbal) is a \$500 billion (about \$1.500 per person in the US) coastal city megaproject, under construction in the northwestern part of the Red Sea, off the coast of Tabuk province in Saudi Arabia, and its success will rely on the preservation of biodiverse marine ecosystems (Papagiannopoulos. Raitsos Krokos Gittings, Brewin Papadopoulos, Pavlidou Selmes, Groom, Hoteit, 2021. p. 1). Ecological indicators will be understood, quantified in standard units, have an immediate response to changes, measured at adequate frequencies and low costs, and applicable to locations to allow comparisons (Papagiannopoulos. Raitsos Krokos Gittings, Brewin Papadopoulos, Pavlidou Selmes, Groom, Hoteit, 2021. p.1). NEOM, which is short for the Ancient Greek-Arabic term Neo-Mustaqbal" ("New future"), is a \$500 by megaproject aims to build a automated city, operatingas an independent economic zone in the NRS (Papaginnopoulos, Krokos Gittings, Brewin, Papadopoulos, Pavlidou, Selmes, Groom, Hoteit, 2021, p.1).

Champion in the Middle East.	Agents trying to run the market.

The renters' structures forged by oil rent for decades are well established and difficult to displace (Faudot,2019p.2). Saudi implements the French Regulation Approach builds an accumulation regime (Faudot,2019. p.1). This approach is relevant to grasp the institutional arrangements of an economy as a whole and its contradiction (Faudot,2019. p.2).

The regulation approach was born in France in the 1970s, influenced by the Marxist theory of growth and capitalist accumulation (Faudot, 2019. p.2). One of the aims of the regulation theory is to describe (Faudot, 2019.p.2). Regulation theory matches with Marx's claim a dynamic of accumulation is condemned to a crisis (Marx, 1996, p.455, Faudot. 2019, p.4), and a comprehensive economic analysis of a country includes the analysis of its crisis (Faudot, 2019. p.4).

A set of social practices constitute the Saudi mode of regulation: "A large public sector employing Saudi natives (Faudot.2019. *p*.4). Civil servants represent circa 40% of Saudi employees (Sama,2017, *p*.41, Faudot,2019,*p*.4). Public spending, the management of oil revenues between, on the one hand, accumulation of reserves in Central Bank accounts and sovereign wealth funds in a period of soaring prices, and on the hand fiscal deficits each time it is necessary (Faudot, 2019.*p*.6).

The peg of the Royal to the US dollar guarantees the economic integration to globalization (Faudot, 2019.p.6). The SAMA (Saudi Arabia Monetary Authority) intervenes on the exchange market to maintain the peg- which has remained the same since 1986 (1\$=3.75SAR); A reliance on contractual immigration for services and low paid jobs, mostly in the private sector (Faudot, 2019.p.5). The sector is weakened as soon as the government stops its grants (Faudot, 2019.p.5).

The mode of regulation is," the set of procedures and individual and collective behaviors serve to reproduce fundamental social relations through the mode of production in combination with historically determined institutional forms (Boyer and Saillard,2002, p.341, Faudot.2019, p.4). Support and 'steer' the prevailing regime of accumulation (Boyer and Saillard,2002, p.341, Faudot.2019, p.4). Ensure the compatibility over time of a set of decentralized decisions, without the economic actors themselves having to internalize the adjustment principles governing the overall system"(Boyer and Saillard,2002, p.341, Faudot.2019, p.4).

"The social and economic patterns enable accumulation to occur in the long term between two structural crises (Faudot,2019. *p*.2). These regular patterns are summarized by the notion of an accumulation regime" (Boyer and

Sailard, 2002, p.38, Faudot, 2019, p.2). Before an investor can commit to a development project, must understand the culture. Geopolitical will reveal relevant and accurate knowledge having is.

From average rating to escalating it to elevated risk due to geopolitical. The fun part of the research will be in the continuation such as for those Mormons not interested in the water toassign a protected private Island while developing the rest of the area? Analysis will focus on small-scale conflicts involving little or no physical violence, such as protection or demonstrations (Ide, Lopez, Frohlich, Schffran, 2021p. 568). These nonviolent conflicts are politically relevant yet understudied in the literature on climate change and conflict, environmental security, and political stability (Ide, Lopez, Frohlich, Schffran, 2021p. 568).

The method of quantitative comparative analysis (QCA) to integrate quantitative and qualitative data at various scales (national, regional, local) for a sample of 34 cases (17 of which experienced conflict onset) (Ide, Lopez, Frohlich, Schffran, 2021p. 568). Findings show pre-existing cleavages and either autocratic political systems or cuts of the water supply are relevant predictors of nonviolent, water-related conflict onset during droughts (Ide, Lopez, Frohlich, Schffran, 2021p. 568). Conflict links are context-dependent even for nonviolent, local conflicts, hence challenging determinist narratives claim interlinkages between climate change, hydrometeorological distances, and conflict (Ide, Lopez, Frohlich, Schffran, 2021p. 568).

Quantitative data on the regime type in power are obtained from Autocratic Regime Data, which is the accepted dataset on the presence or absence of autocratic regimes (Geddes, Wright & Frantz, 2014), (Ide, Lopez, Frohlich, Schffran, 2021p. 568). Renewables are the backbone of any energy transition to achieve net-zero (IEA,2021. p.1). As the world shifts away from carbon-emitting fossil fuels, understanding the role renewables play in the decarbonization of multiple sectors is key to ensuring a pathway to net-zero (IEA,2021. p.1).

Future research is recommended in analyzing storage, producing hydrogen from renewable electricity, stimulus packages, aviation biofuels, and residential heating (IEA,2021. p.1). As the world becomes digitalized, data centers and data transmission networks are emerging as a source of energy demand (IEA,2021. p.1). Government officials from Israel, Jordon, and the United Arab Emirates signed a letter of intent at the Dubai Expo on Monday, pacing the way for the future export of Jordanian solar energy in exchange for Israeli desalinated water (UDASIN, 2020.p.1).

Water-starved Jordan, but it will also shift Israel'shistoric neighborhood status as an energy island and help the country meet climate targets (UDASIN, 2021.*p*.1). Through partnership with prime contractor and Joint Venture partner contractor and joint venture partner Korea Electric Power Corporation (KEPCO), who continue to deliver the benefits of experience and expertise to the UAE program and through regular interactions with the global nuclear industry (Emirates Nuclear Energy Corporation, 2021.*p*.1). Abu Dhabi Investment Council invests, Strong focus on investing in Abu Dhabi's economy (Abu Dhabi Investment Council, 2022.*p*.1).

Some of its significant investments include substantial stakes in prominent organizations such as,

- First Abu Dhabi Bank
- Abu Dhabi Commercial Bank
- Al Hilal Bank
- Abu Dhabi National Insurance Company
- Abu Dhabi Aviation Company
- Abu Dhabi Investment Company (Investment AD). (Abu Dhabi Investment Council, 2022 p.1). Active investment strategies aim to generate superior risk adjusted returns by investing in hedge funds and similar active trading mandates across different strategies (Abu Dhabi Investment Council, 2022.p.1). Some of the Global strategies include the following,
- Relative Value Strategies
- Hedged Equity Strategies
- Macro Strategies
- Event-Driven Strategies
- Systematic CTA (Abu Dhabi Investment Council, 2022.p.1).

Chapter Summary

No country can solve these problems alone, and Americanscannot afford to be absent from the world stage (President Biden, 2021). Investigating in strengthening leadership abroad is also an investment in bolstering security and prosperity at home (President Biden, 0221). As President, the direction is to be determined to repair alliances, renew leadership in international institutions, reclaim creditability and equip the American middle class to succeed in a global economy (President Biden, 2021).

For the Middle East to generate peace it is recommended cherish values: defending freedom, championing opportunity, upholding universal rights, respecting the rule of law, and treating every person with dignity (President Biden, 2021). Diplomacy to the center of foreign policy and are committed to meeting today's global challenges from a position of strength, working in close cooperation with allies and partners (President Biden, 2021). Stand with friends the world to protect values and to advance peace, security, and prosperity for all (President Biden, 2021).

As part of the agreement, Jordonwill export about 600 megawatts of electricity generated from solar energy, while Israelwill evaluate the export of up to 200 million cubic meters of desalinatedwater to Jordon, a point news release from the IsraeliEnergy Ministry and the UAE Foreign Ministry said (UDASIN, 2021.p. 1). The collaboration was made possible due to the August 2020 Abraham Accords, which the countries described as "opening a new area of cooperation between the United Arab Emirates and Israel(UDASIN,2021p.1). "This is a message to the universe about how countries can work together to combat the climate crises."

Israeli Energy Minister Karine Elharrar said in a statement, "Israel and Jordon are two countries with different needs and capabilities can help each cope with challenges in a greener "(UFASIN, 2021.p.1). One-third of Jordon's population is made up of refugees or non-citizens (Al-Halbouni,2022. p.1).MIPCO incurs liabilities for failing to achieve targeted power and water availability, budgeted operating costs, and if fuel demand is greater than projected demand (Mipco,2022. p.1).

Research Results Study 94

Results

Remote sensing through satellite imagery is an effective method to identify flooded areas (Sadiq, 2022.p.1). This paper explores the integration of remote censoring and social sensing data to derive informed flood extent maps (Sadiq, 2022.p.1). The advantage of acquiring information in real-time, there comes the drawback of requiring verification and this weakness is actually the strength of remote sensing, where satellite imagery is usually reliable and accurate (Sadiq, 2022.p.1).

Financial decisions are more successful going through the proper channels. The Gulf Corporation Council (GCC), the organization was established on 25 May 1981 by six Arab states, all monarchies with petroleum-based economics (Citaristi, 2022.*p*.1). The commission for the settlement of disputes is covered by the Supreme Council. On an ad hoc basis, as provided for in the GCC charter, to address altercations between member states as they arise (Citaristi, 2022.*p*.1).

China National Offshore Oil Corporation

Baker Hughes (**GE**)- The Renaissance itself unfolded over years, decades, centuries, took more than 100 years to complete and will not have risen without building on strong foundations and metaphorically (Brekelman's, 2018.p.1). Method- The neighboring Olympus tension-leg platform learnt from with the capital efficiency approach (Brekelman's, 2018.p.1). As well as competitive scoping and efficient execution, transformed how interacted with supply-chain (Brekelman's, 2018.p.1).

The transformation emphasizes the importance of partnership and collaboration with contractors (Brekelman's, 2018.p.1). Digitalization as one of key drivers for improving capital efficiency and boosting operational excellence (Brekelman's, 2018.p.1). Sensors work in the deepest waters, drones work in the deepest waters, drones patrol distant oil and gas fields and computerized tools make use the smallest pieces of data (Brekelman's, 2018.p.1).

Implemented the Vero app (Brekelman's, 2018.p.1). These fluctuations can be picked up by Veros sensors wherever the power cable happens to be, which might be in a far more accessible location than the motor (Brekelman's, 2018.p.1). Veros will deliver an additional \$300 million a year of production will otherwise have been lost by unplanned shutdowns (Brekelman's, 2018.p.1).

Royal Dutch Shell Plc- In Iraq, small and medium-sized enterprises (SMEs) have struggled to develop due to political instability, insufficient infrastructure, and lack of access to finance and institutional support (USAID, 2022.*p*.1). Basrah, the second largest city in Iraq known for its wealth in oil production, economic life continues to lag due to outdated production methods and machinery in industries and ongoing significant social and political instability (USAID, 2022.*p*.1). Shell has a 34% interest in Petroleum Development Oman (PDO): The Omani government has a 60% interest (Shell, 2022.*p*.1).

PDO is the operator of more than 200 oil fields, located in central and southern Oman, over in area of 90,874 square kilometers (Shell,2022. *p*.1). The concession expires in 2044 (Shell,2022. p.1). Signed an Exploration & Production Sharing Agreement for Block 55 in the south-east of the Sultanate (Shell,2022. *p*.1).

Oman Shell now has a 100% working interest in and operatorship of Block 55 with a area of 7,564 square kilometers (Shell,2022. *p*.1). The agreement includes a work programme of regional studies, seismic acquisition and potential exploration activities (Shell, 2022. *p*.1). This agreement is awaiting ratification via Royal Decree (Shell,2022. *p*.1).

Middle East Investment Initiative (MENA 11)-Iraq partnered with The Shell Foundation, implemented by GROFin in collaboration with the Nomou Fund Osool (USAID, 2022.*p*.1). Locations- Basrah, Ninewa Plain, and Northern Iraq (USAID, 2022.*p*.1).Budget: \$21 million (USAID, 2022.*p*.1).

Schlumberger Ltd- Agreement reinforces In-Kingdom Value Add program and confirms long-term commitment to the kingdom of Saudi Arabia (Schlumberger, 2017.*p*.1). In 1964, the Arabian Drilling Company

was established as a partnership between the General Petroleum and Minerals Organization (Petromin) and Schlumberger affiliate companies (Schlumberger, 2017.*p*.1). Later in 2006, Schlumberger pioneered its Dhahran Carbonate Research Center, located close to King Fahd University with a focus on Geology and Rock Physics and Production Completion and Recovery projects in the Middle East Region (Schlumberger, 2017.*p*.1).

Summary

Today's agreement is a welcome example of how cooperation can accelerate the energy transition and build greater resilience (UDA, 2021.*p*.1). Algorithm can be a possible solution to distribute quality water (Tefagh, Boyd, 2018, *p*.1). If a system works it is possible it can work within another environment geographically with a step by step process.

Analysis and Conclusions

"This declaration is just one of the positive outcomes of the AbrahamAccords is serving to reinforce regional peace, stability, and prosperity while improving the lives and the prospects of the people of the region," Zayed said in a statement (UDASIN, 2021.p.1). Models are developed based on quantitative statistical data sources from databases on environmental indicators or economics to assess how a given SDG (sustainable development goals) can be achieved (Tiller, et al, 2021.p.1). The desalination process removes the local realities from the equations (Tiller, et al, 2021.p.1).

Limitations

Risks-

Not able to execute the original plan depends on the rapid and international expansion (Swyl Inc, 2021, p.1).

- Unable to attract qualified investors(Swvl Inc, 2021.p.1).
- Unable to develop new offerings (Swvl Inc. 2021.*p*.1).
- The difficulty of obtaining required registrations, licenses, permits, or approvals (Swvl 2021.p.1).
- Operates in and intends to expand into jurisdictions are, or have been, characterized by political instability, may have inadequate or limited regulatory legal frameworks, and may have limited if any. treaties or arrangements in place to protect a foreign investment or involvement(Swvl,2021. p.1).
- An elevated level of corruption (Swvl,2021. *p*.1).
- Unknown risks (Swv1,2021. p.1).

Data accessibility issues of smart cities, utilities, and transport (The Royal Society, 2022.p.1). Data alone is not enough (The Royal Society, 2022.p.1). Big data does not mean extensive knowledge: public bodies and private companies need to formulate useful questions to interrogate data, to generate the desired outcome (The Royal Society, 2022.p.1).

Findings and Interpretations

On September 15th, representatives of the United States, Israel, Bahrain, and the United Arab Emirates, signed the Abraham Accords at the White House (Samadi, 2022, p.1). The Accords is a significant political document (Samadi, 2022, 1). Oil-dependent Arab nations are now looking to Israeli innovation to diversify economies, and pursue a new path to prosperity (Samadi, 2022. p.1).

Israel Investment Fund Group (IIFG) is Los Angeles-based Venture Capital and Private Equity firm invests in Israeli companies (Samadi, 2022, p.1). While every measure Israeli is a fertile investment environment, investment capital brings valuable ideas to reality (Samadi, 2022.p.1). Israel is a beacon of technological wealth in the Middle East, (Samadi, 2022, p.1).

Water Companies

Baraka Nuclear Energy Plant

Noor Abu Dhabi

MIPCO

Shams 1

Masdar PV

Umm AL Nar

EWEC – EWEC partners with 16 plants for the supply of water and electricity across the UAE (EWEC, 2022, p.1).

Fujita Water and Electricity

Generation Complex

ADQ

Al Shuweihat Power and Water Complex

Al Taweelah Power and Desalination Complex

Assessment of Project Plan

If necessary, The Minister of Economy and Finance review the appropriate project scale, project costs, and efficient alternatives of the projects exempted from the Preliminary Feasibility Study based on the methods of Preliminary Feasibility Study and reflect the result in the budget proposal and the establishment of a fund

management plan (Korea Development Institute, 2018.*p*.1). The objective of the Red Sea and Gulf of Aden Ecosystem Management Project for the Middle East and North Africa is to improve management in the marine resources in the Red Sea and the Gulf of Aden building on resources protection and incentive systems for communities and the harmonization of the knowledge base on marine resources among Regional Organization for the Conservation of the Environment of the Red Sea and the Gulf of Aden, or PERSGA member countries (The World Bank, 2021.*p*.1). Vision 2030 is a plan for peace and overcoming dropped oil prices (Faudot, 2019, *p*.1).

The feasibility study is intending to show the **no-project results** as well as the projected results if adoption takes place. The oil prices drop which occurred in international markets in 2014 has renewed concerns about the economic situation of Saudi Arabia (Faudot, 2019, p.1). Saudi Arabia is the biggest oil exporter in the world, and its oil production costs are among the cheapest in the world (Faudot, 2019, p.4).

Saudi Gross Domestic Product (GDP), depends on oil export revenues (Faudot 2019.*p*.4). The enormous wealth accumulated by the Royal family and by the Saudi elites who have privileged access to the oil rent does not make capitalist entrepreneurs (Niblock, Malik, 2007, *pp*.88-89). Dependency on the state has rendered a large segment of the Saudi population unwilling even to consider employment beyond the public sector (Faudot, 2019, *p*.12).

Saudi Arabia is a pre-capitalist economy contrary to what Karl Max described as the process of primitive accumulation (Faudot, 2019, p.10). Geopolitical and contractual are imperative in the adoption process." Memorandum of Understanding," needs to be investigated. SOURCE Hydro panels are an expensive way of making water and a small volume of water produced is another determinant (GWI, 2020).

It's feasible to consider a "contingency resource "(GWI, 2020). Desalination continues to win on production as there is an unlimited source of water available from the sea. In the Middle East, thermal desalination remains the primary technology of choice, but membrane processes, for example reverse osmosis (RO), have evolved and in parts of the world are even surpassing thermal processes (Lotfy, et al. 2022, p.1). It needs further investigation but what is a possibility is delivering the water to Jordon with the highest security and coming back with retail. Aquila's network of caravan trade was crucial in establishing motorized connections across the territories had been parts of the Ottoman Emon Empire (Petriate, 2021, p.273).

Private and public are working to achieve the desired results. Co-sharing reduces the burden of elaborate costs and keeps the price affordable for the desalination plants in the Middle East showing the surplus. In the Middle East and North Africa, the region with the highest levels of forced displacement, water resilience is key to long-term growth (The World Bank, 2021, p.1).

The report anticipates the world's cities, which receive migrate and are now 55% of the global population, will face an arising number of "day-zero" events- when taps run dry (The World Bank, 2021. p.1). The report, Ebb and Flow provides the first-ever global assessment of the impact of water on migration ever assembled, covering half a billion people from 189 population census in 64 countries, from 189 censuses (The World Bank, 2021. p.1). Yet it is often the poor cannot afford to leave (The World Bank, 2021, p.1).

Resolution Opportunities

Integrate state-of-the-art innovation, partnerships, private investing, co-sharing shipments, and knowledge for informed decision-making.

- Ecological Partnerships
- Import & Export Arrangements
- Proper Licensing
- Proper Disposition of discharge.
- Maintaining records.
- Achieving the highest quality water with maintain quality.
- Analyzing key performance.
- Cooperative Management for shared water resources.
- Expand on keeping the peace.

Conclusions

A thorough investigation is into financing mega projects is a priority. Companies that fund may purchase football leagues, ministries, International Monetary Fund, and have other partners that an investor must have knowledge of. Palestinian's may have a more difficult time due to the refugee camp.

Dubai has a large success rate they are federal verses average like Lebanon. The regulation will be evaluated in order to determine how registrations are processed. Dubai is a major jurisdiction for arbitration (Malkawi, 2022, p.1).

At the federal level, the legislator enacted a new arbitration law that mirrors international standards in the drive to make the United Arab Emirates a major hub for arbitration (Malkawi, 2022.1,*p*.1). Strategic leadership plays a significant role (Alnuaimi, 2022, *p*.1). Gathered data from one prominent federal institution of the United Arab Emirates and employed close-ended, self-administered questionnaires (Alnuaimi, 2022, p.1).

Institutional Excellence, Strategic Organizational Excellence, Strategic Organizational processes, Leading & Developing People, Culture & Value Systems, Distinct Competencies, and Effective Networking Competencies are the basic tactics that help a strategic leader top attain institutional excellence (Alnuaimi, 2022, p.1). In this study new innovative technologies in infancy stage are tested such as Artificial Intelligence, Synthetic Intelligence and computational intelligence in order to increase quality water distribution. A different approach implementing the snowball theory as the literature available focus is to conserve water.

This study wants to produce an infinite source with retaining instead of losing not using less when needed instead ensuring proper security measures so is no water loss. The technology is tested with the snowball effect in order to discover the largest percentages of water needed and detect when are issues in real-time. The methodology enables us to interpret participatory conceptual maps and identify problems, to develop practical and robust business road maps and strategic policy recommendations (Tiller et al. 2021,*p*.3).

The process of using a mix of qualitative and quantitative methods to obtain some holistic result is not unproblematic, but it's also no longer unusual and is now an accepted methodological approach (Tiller et al. 2021, p.2). Snowball sampling presents advantages compared to methods can fulfill similar objectives (Audemard, 2020, p.1). First it consists of an adaption of a sociometric approach to partial or incomplete networks, know neither the structure not the extent of the network.

In contrast, stoichiometry and social network analysis produce models and methods for complete networks, delaminated by specific borders. Nevertheless, when the object, these borders are opaque, and moving away delaminated networks can be valuable for drawing attention to complex or multiplex relationships, or for comparing the impact of relations from different groups (Audemard, 2020. P.1). Smart cities are melting pots of complex and inter-dependent problems (The Royal Society, 2016, p.1).

Think of the sculptures again the artist, not the clay is able to initiate activity but the kind of clay is being used affects the shape of what is being processed (Baert, 2055, p.97). Empirical testing remains a central methodological theme, and from this critical realist would infer theories ought to be refutable (Baert, 2055.p.95). The interests and resources constitute and "objective reality is bound to affect present future strategies" (Baert, 2055, p.95).

Recommendations

Future research is recommended to compare transporting containers from pipeline with trucks to water desalinating on-shore off-shore etc...Geopolitical and scorched earth policy is recommended for future research. Co-sharing and co-investing between private and public are evaluated and compared to alternatives, weak countries are not to be allies (Haoyand, 2021, *p*.216).

Recommendations for Future Research

The shorter the distance, the more balanced the power of the countries as have to coexist with one another (Haoyang, 2021, p.215). However, the views of Han were subjective and biased, as Han's perspective was dependent on relationship with the region and own culture (Haoyang, 2021, p.215). In qualitative primary research, review authors often decide to reveal own preexisting biases and discuss how those biases might have affected the review (Randolph, 2009, p.1).

The example of Swift and Russia is evidence banking can change and delay or destroy a project. U.K. Prime Minister Boris Johnson called for Russia to be kicked off Swift while announcing London's package of sanctions on Russia's banks, and Czech President Milos Zeman also said Russia will be cut off from Swift (Curry, 2022, p.1). Incorporating the novel scientific technology expands capability of acquiring accurate data. Volume 2 is recommended for future research in Artificial Intelligence, Synthetic Intelligence and computational.

This will allow for breaking news in real-time in order to detect disasters, crisis, and bidding opportunity and simulate infrastructure. It is recommended comparing journals of yesterday and today to discover patters providing compliant and ethical practices. 2023 is when countries will review progress towards the Paris Agreement goals, including the goal of keeping global warming to well below 2.C while pursuing effects to limit it to 1.5C (IPPC, 2022.p.1).

Chapter Summary

If the development and persistent dominance of the United States have taught us anything, it is technology and entrepreneurial spirit are the supreme source of geopolitical capital (Samadi,2022. p.1). Build on foundations, continue to work together and change to be ready for the future (IPPC, 2018.p.1). Three main reports are Global Warming of 1.5C, Climate Change and Land, and Ocean and the Cryosphere in a changing climate (IPPC, 2022, p.1).

List of Figures

According to the Economist, more than \$140 trillion dollars was transmitted across international borders in 2021, equal to 152% of global domestic product (GDP), 90% of those transfers went through SWIFT(Curry,2022. *p*.1).Iran was removed from the system in 2012 and lost half of its oil export revenue and 30% of its foreign trade (Curry,2022. *p*.1). Players are asymmetric in powers (Curry,2022. *p*.1).

The impact of the pandemic is testing economic and political developments in the Middle East and could further exacerbate regional instability and political fragility (Xue, 2022, p.1). A global decline in foreign investment of at least 30% in 2020 compared to 2019 and the resulting demand and supply shocks, combined with lower oil prices and declining consumer confidence, as well as political instability exacerbated by the pandemic, could lead to a further decline in foreign investment in the Middle East and a further rise in unemployment in Middle Eastern countries or regions (Xue, 2022, p.1). Saudis represented 94.6% of government sector employees in 2016 while represented 16.8% of private-sector employees (Faudot, 2019,p.4).

Gap- Individual and institutional investing and the security risks with sharing data.

Variables- Synthetic time0-series, time-series datasets, agent-based simulations algorithms generate realistic synthetic datasets.

Chapter Summary

One concern is giving appropriate credit, sharing datado not meandiminishing the originator (Ide, Lopez, Frohlich, Schffran, 2021p. 568). Ensuring water is part of the broader humanitarian development policy discussion and plans is vital for stabilizing economies, rebuilding livelihoods, and forgoing a green, resilient, and inclusive future for (The World Bank, 2021. P.1). To summarize, to increase productive employment in Iran, resolving the education conflict, the fertility conflict, and developing new energy technologies are three essential areas (Xue, 2022, p.1).

Prior to 1979, Iran's economy was one of the most developed economies in the Middle East, and since then, the country's economy has regressed under multiple influences (Xue,2022. p.1). Iran's oil exports were cut in 2018, which was a heavy economic blow to Iran, which relies on oil exports as the source of the country's economy, and the Iranian nation's economy fell into a continuous recession, which exacerbated the social burden and conflicts within a country. (Xue, 2022, p.1). The pandemic outbreak in 2020 increased the cost to the economy, both from negative demand and supply shocks, as well as from the plummeting price of oil (Xue, 2022, p.1). See Appendix A-Cfor additional sample items.

Money moves the world because of Swift's Network (Curry,2022.p.1). Operated by the Society for Worldwide Interbank Financial Telecommunication, this vast communications network facilities international payments among thousands of banks and financial institutions worldwide (Curry,222.p.1). The Swift network enables the transfer of money and securities among 11,000 member banks, via tens of millions of daily transactions (Curry,2002.p.1).

Recommendations

This development of a broad epistemic community or "community of shared knowledge "compasses the key shareholders in a given issueand geographical area, is key to achieving global aspirations such as the SDGs (Tiller et.al. 2021. p.2). Developing methods for facilitating comparative analysis between different countries, local communities and socio-economic regions is to observe the proceedings toward reaching a global goal-made possible when epistemic communities are activated (Tiller et al. 2021. p.2). Banks must go from being disruptive and passive to developmental and active (Schulkes, 2021, p.1).

Epistemology is integrated to decipher fantasy from reality. The system has the capacity to produce photovoltaic energy of 350 kilowatt in 8 hours, so the excess electricity can be used for outer purposes (Muscat,2021.p.1). A pilot-scale facility in which a comprehensive evaluation of water quality and energy parameters can be, done, facilitating a life cycle assessment and cost cycle assessment of a hybrid process, which will give essential information on the direction will be taken to develop robust low-costwater treatment hybrid systems to produce water (Linares, Vrouwenvelder, 2014, p.136).

State-of-the-art research, and garner national and international recognition for the author's research endeavors. To be successful in the water project it is imperative to have transparency and implement the time-series approachwhich implements data points in a sequence of time. A partner is desired as it is a playing field with disruptions and to be a dominant player a large force will need to be backing the project.

When searching for a partner these questions will be included. SOURCE water brings quality and sustainability together- no pipes, no grids, no electricity made possible with SOURCE Hydro panels (SOURCE, 2020). Nothing is stranger the notion, held Russia is a newcomer to the Middle East (Service, 2021, p.1).

The tests are to eliminate biases and de-risk geopolitical. Research questions are selected implementing epistemological, ontological positioning (Creswell, 2009, *p*.28).

Which projects are completed in the past?

Which location?

What terms did the contract have?

Has the work ever been in the gulf?

The Syrian military intervention which started in 2015 was a piece with this geopolitical strategy (Service, 2020, p.1). Financial Center launched a license for certified intelligence Artificial Intelligence (AI), and coding the license was launched in cooperation with the United Arab Emirates Artificial Intelligence Office to attract ArtificialPushing to remove Russia from SWIFT network was not part of the sanctions announced by the Biden Administration (Curry, 2022, p.1).

Following the investigation, a database has been designed and tested. Security and preventive measures with backdoors. Currently recommended are (not sure of the timeframe, subject to change) Yandex.com, using PST files, Karsparsy, whatever is the selection you will want one that is secure. The Web site designed now has a low number 12 yet 7Trillion available.

It would be needless to go over why security is important. Do not be fooled today a federal agent can gain access at any point if not private. It would be okay until they design. Then you are ruined. Knowing from the start point who will be the key contacts is imperative.

Russia is known for invasions so I would be very comfortable with their companies. The ones that have been hit and lost a fortune are the winners later on. I have run tests and approve the companies. The worst thing is going back and forth with a federal agent and now all the Kings have plots on your mark with no credit to you.

Looking for opportunity or being available for opportunity is a pleasant idea; however, security is a priority and having everything analyzed and mapped out is a priority. The study gives an abundance of information each user will need to articulate which works for them and be sure to include regulation.

To make the experience more enjoyable I have included (experts from around the world have tested theories and mythology) Literature review, list of mutual funds, list of A & E engineers, theoretical framework, and one asset that may conclude decisions is no-project results. What would it cost if you did not complete the project also earnings before, while, and after?

The research is an original one 8 years to date. The research covers state-of-the-art equipment, water distribution, methodology then goes on to something fascinating distributing with artificial intelligence and even beating out real-time with synthetic intelligence. You are able to visit the royals on my plot an watch them eat up my work at sirende.us.

References

Minimum Number of References	166%
Number of Recent within 5 years References	99%
Publications Older than 5 Years.	1%
Founding theorists, empirical research, peer-	99%
reviewed, articles, journals.	
Images	17

Bibliography

- [1] Appearance Publisher, (2021)." APA 7th,"Manual Made Easy: Full Concise Guide Simplified for Students", 13 978-1433832161, 10 143383216X
- [2] LeCompte, M.D., Klinger, J.K., Campbell S.A., & Menke, D.W. (2003)." Editor's introduction." Review of Educational Research, 73(2),123-124
- [3] Light, R.J., &Pillemer, D.B. (1984)." Summing up: The science of reviewing research". Cambridge, MA: Harvard University Press.

References

- [1] Abu Dhabi Investment Council, (2022). "Welcome to the Council where we execute sound Investment strategies today for capital growth and Abu Dhabi's secure future tomorrow "adcouncil.ae p.1
- [2] AbuA-Foul (2022). "Whose Water? The Jordon Water and Continuing Challenges, Bu Nehir Kimin? Urdun Nehrive Suregelen Zorluklaer, islamiarastirmalar.com p.1
- [3] Abed,G.,Zhang.T.,(2018). "Saudi Arabia: Diversification Requires Deep and Sustained Structural Reforms," Institute for International Finance, www.sciencedirect.com pp.1-22
- [4] Aboobacker.V.M., et al., (2017). "Wave Energy Resource Assessment for Red Sea", Elsevier, https://www.sciencedirect.com p.1
- [5] Academic Review Checklist, (2021). "ARB Document", Capitol Technology, www.captechu.edu pp.1.8
- [6] Adams. A., (2018),"Ocean Swarms Revealed", Stanford Woods Institute for the Environment", Stanford University, https://woods.stanford.edu
- [7] AlEmadi.F., Nonneman.Dr.G., (2021)." The Water Crisis in the Middle East: Exploring the Relationship Between Water Insecurity and Political Instability, Award for Honors in International Politics, Georgetown University, Edmund A. Walsh School of Foreign Service in Qatar", georgtown.edu pp.1.-191
- [8] Al-Halbouni. D. Et al., (2022)." A Vision on a UNESCO Global Geopark at the Southeastern Dead Sea in Jordon-Geosites and Conceptual Approach", Dynamics of the Ocean Floor, Seafloor Modelling Group, GEOMAR Helmholtz Centre for Ocean Research, Wischhofstr. 1-3, 24148 Kiel, Germany, mdpi.com p.1
- [9] Airbus (2022). "Maritime, Smart Maritime Solutions for Safer Oceans", intelligence-airbusds.com p.1
- [10] Akomea-Frimpong, Jin, Osei-Kyei, (2021). "Managing financial risks to improve financial success of public-private partnership projects: atheoretical framework", School of Engineering, Design and Built Environment, Western Sydney University, Sydney, Australia, https://www.emerald.com.p.2
- [11] Al-Aloosy.M., (2021)." Iraq's Water Crisis: An Existential but Unheeded Threat", The Arab Gulf States Institute in Washington, agsiw.org p.1
- [12] Al-Masari.A.R., Spyridopoulos.T., Karatzas.S., Lazari.V., Tryfonas.T., (2021). "A Systems Approach to Understanding Geopolitical Tensions in the Middle East in the Face a Global Shortage", University of Surrey, UK, Toshiba Research Europe,Ltd,UK, University of Patras, Greece, University of Bristol, UK, https://orcid.org/0000-0003-4024-8003 p.2
- [13] Al-Monitor (2022)." The Emirates is seeing to become a regional leader in artificial intelligence, and wants to attract more technology startups", al-monitor p.1
- [14] Al-Sarihi.A., et al (2022). "Renewable Energy Development in the Gulf Cooperation Council Countries": Status, Barriers and Policy Options, https://doi.org/10.3390/en15051923 pp 1-16

- [15] Alnaser W.N. et al., (2021)." The Transition in Solar and Wind Energy use in Gulf Cooperation Council Countries (GCCC). Renewable Energy and Environmental Sustainability", http://doi.org/10.1051/rees/2021034 p.1-10
- [16] Alsulami.S.M.Dr., (2021). "US-China Competition and Its Implications for the Middle East", International Institute for Iranian Studies (Rasanah), researchgate.com
- [17] Alnuaimi, (2022)." The Role of Strategic Leadership to Achieving Institutional Excellence for Emirati Federal Institutions", Advanced Machine Learning, pp, 487-501
- [18] Arab News (2021). "Saudi National Water Company Signs Two Contracts with \$154m-", Arabnews.com p.1
- [19] Audemard.J., (2020). "Objectifying Contextual Effects. The Use of Snowball Sampling in Political Sociology", Sage Journals, https://doi.org/10.1177/0759106319888703 p.1
- [20] Baert.P., (2005). "Philosophy of the Social Sciences: Towards Pragmatism", Polity Press pp. 77-79
- [21] Basyariah.N.,Kusuma.H,Qizam.I,(2021)."Determinants if Sukuk Market Development: Macroeconomic Stability and Institutional Approach, Journal of Asian Finance, Economics and Business Vol 8 No 20201-0211, 10.13106/jafeb.2021.vol8.no2.0201
- [22] Bayrak.P., (2021). "Abraham Accords: Palestine issue should be addressed for a peaceful Middle East, University of London, United Kingdom", http://d .doi.org/10.38154/cjas.4 p.1
- [23] Bloomberg (2021). "Norways \$1.4 trillion (about \$4,300 per person in the US) wealth fund set to get strict Co2 Mandate". Sovereign Wealth Funds pionline.com
- [24] Birkin.M., Procter.R., Allan R., Bechhofer.S., Buchan.I., Goble.C., "Hudson-Smith. A., Lambert.P., De Roure.D., Simott. R., (2010). "Philosophical Transaction of the Royal Society A Mathematical Physical Engineering Science, Evolution in Computational Intelligence", Springer, https://doi.org/10.1098/rsta.2010.045 p.1
- [25] Borquez et al., (2018). "Implementation and Evaluation of a Seawater Desalination Pilot System Using Two-Fold Nanofilteration, International Journal of Engineering Sciences & Research Technology", ISSN:2277-9655 p.14
- [26] Boyd.S.T.M (2019). "Quantitative Flux Coupling Analysis", Journal of Mathematical Biology, stanford.edu p.1
- [27] Brekelmans.H.,(2018). "The industry renaissance: much done, more to do", Baker Hughes GE Annual Meeting Florence, Italy, Royal Dutch Shell, Harry-Brekelmans-Baker-Hughes-GE-Speech-20180129.pdf p.1
- [28] Capitol Technology University, (2022)." Learn, Build, Succeed", captechu.edu p.1
- [29] Cui. Y., Ma. Qingfen., Wu, ZHongye, Lu.H., Gao. Z., Fan. Junqing (2021)." A hydrostatic Pressure- Driven Desalination System for Large -Scale Dee Sea Water Space Station", International Journal of Chemical Engineering, https://www.hindawi.com.p.1
- [30] Citaristi.I., (2022)." Cooperation for the Arab States of the Gulf", taylorfrancis.com p.1
- [31] Creswell.W.J., (2009)." Research Design, Qualitative, Quantitative, and Mixed Methods Approaches", Third Edition, Sage, ISBN 978-1-4129-6557-6
- [32] Curry, B., (2022). "Should Russia Be Removed from Swift?", Forbes Advisor, forbes.com p.1
- [33] Emirates Nuclear Energy Corporation (2021)." Generating Clean Energy" 24/7 enec.gov.ae
- [34] Dai.L. (2021). "Implementation Constraints on Israel- Palestine Water Cooperation: An Analysis Using the Water Governance Assessment Framework", Switzerland, https://doi.org/10.3390/w13050620, https://www.mdpi.com/journal/Water
- [35] D'Aniello G., Gaeta M., Rocca L. I (2022). "KnowMIS-ABSA: an overview and a reference model for applications of sentiment analysis and aspect-based sentiment analysis", Artificial Intelligence Review. www.link.springer.com p.1
- [36] Dean, (2021). "Academic Review Results", ARB Document
- [37] Deemer.F., (2022)." Water Security", Harvard Model Congress, Boston, harvardmodelcongress.org p.5
 [38] Dixon.D.A. Monk.H.B.A., (2011)." The Design and Governance of Sovereign Wealth Funds: Principles & Practices for Resource Revenue Management ", University of Bristol, [39] Dodd.M.,(2012)." The Political Left Rolls With The Good and The Political Right Confronts the Bad: Connecting Physiology and
- Cognition to Preference", https://doi.org/10.1098/rstb.2011.0268
- [40] Dunn.J (2021)." Marketing Coordinator ", www.connectnext.com
- [41] Exartier V., (2022). "Lesson-Drawing and Policy Diffusion of GCC countries in the development of renewable energies: the case of the Kingdom of Bahrain". Royal University for Woman, BAHRain, https://journals.usek.edu.lb/aebjp.1 [41] Sevincer T., Kwon. Y.J., Varnum E.W.M., Kitayama.S., (2021)." Risky Business: Cosmopolitan Culture and Risk-Taking", Vol. 52,
- https://journals.sagepub.com p. 252
- [42] Stanford University, https://ssm.com p.1,3
- [43] Elzaki, M.R et al., (2022), "Optimal crop combination under soaring oil and energy prices in the Kingdom of Saudi Arabia", Science Direct, https://doi.org/10.1016/j.seps.2022.101367p.1
- [44] EWEC, (2022)." Staying ahead of the current". Ewec.ae
- [45] Evans.W.P., Thebault, K.P.Y., (2020). "On the limits of experimental knowledge", The Royal Society,
- https://doi.org/10.1098/rsta.2019.0235 p.1 [46] Ghernaout.D.,(2017). "Reverse Osmosis Process Membranes Modeling A Historical Overview ", Journal of Civil, Construction of Environment Engineering doi, 10.11648/j.jccee.20170204.12
- [46] Geschwind.G., (2022)." Funding for Water Distribution in the Middle East", E-mail sent to Diane Roessler Weinert, March 14, 2022
- [47] Gezina,(2022), "Partnership for Water Distribution in the Middle East", E-mail sent to Diane Roessler Weinert, August 8th, 2022, Http://www.sciencepublishinggroup.com/j/jccee
- [48] HT Digital Streams Limited (2021). "No Absolute Monarchy: Thousands of Thais March for Royal Reforms", IceLand, Kathmandu, ProQuest, proquest.com p.1
- [49] Genovese. W., (2014). "The Enterprise technology Framework as Applied to Cloud Initiatives", IBM https:///www.ibm.com p.1
- [50] Gifford. C., (2020), "Blurred Vison", World Finance, worldfinance.com p.1 [51] Hannah, Ritchie & Roser.M., (2020). "Energy", published online at ourworlddata.org, Retrieved from https://ourworldindata.org/energy
- [52] Haoyang. Yu. J., (2021)." Biases in the Han Dynasty's view towards different countries along the Silk Road", International Conference on Social Development and Media Communication, Dulwich College Shanghai, Shanghai 201206, China, atlantis-press.com
- [53] Hartford, (2022). "Hartford Climate opportunities Fund", hartfunds.com pp.1
- [54] Hoummaidi.E.L., et al, (2022). "Geospatial Analysis of Groundwater Quality In Dubai", International Journal of Mechanical Engineering, ISSN:0974-5823 p.1
- [55] Howel.K.D et al., (2018). Beyond Challenger: a new age if deep-sea science and exploration, Scientific Meeting", The Royal Society. p.1
- [56] Faudot, A., (2019). "Saudi Arabia and the rentier regime trap: A critical assessment of the Vision 2030", RUDN University, Moscow, Russian Federation: Universite" Grenoble Alpes, France, Elsevier, https://www.elsevier.compp. 1-22
- [57] Foteinis.S., (2022). "Wave Energy Converters in Low Energy Seas: Current State and Opportunities", www.sciencedirect.com p.1
- [57] Geschwind.G., (2022). "Agricultural Regions are Facing Historic Drought Levels", E-mail

- [58] Google Scholar (2021)." Best practices in exploratory factor analysis"; Four recommendations for getting the most of your analysis", Citations 12703, ISSN 1531 7714
- [59] Gulf Construction (2021). "Dual Challenge", Saudi Arabia, https://www.theredsea.sa p.1
- [60] GWI,(2020)." Atmospheric Water Generation" Vol 21, Issue 5, globalwaterintel.com
- [61] ICI Global, (2021). De-Securitization", igi-global.com
 [62] Ide, lopez, Frohlich, Scheffran (2021). Pathways to water conflict during drought in the MENA region, Journal of Peace Research, 10.1177/0022343320910777 pp.568-582
- [63] Idrica., (2022). "Water Technology Trends 2022", idrica.com p.1
- [64] IEA, (2021). "Middle East", ie.org p.1
- [65] Information deGovernmet Authority, (2016). "Bahrain in Figures 2016", iga.gov.bh
- [66] International Journal of Engineering Research and Technology. ISSN 0974-3154, Volume 13, Number 12 (2020). pp. 5365-5372 @ International Research Publication House. http://www.irphouse.com p.5365
- [67] International Bank for Reconstruction and Development, IBRD (2021), "Fiera Capital invests in World Bank Sustainable Development Bonds and Risks Awareness for the Importance of Water and Ocean Resources ", worldbank.org International Monetary Fund (2022), "International Monetary Fund", imf.org
- [68] Kashef.M., (2022)," "The Building Blocks of Walkability": Pedestrian Activity in Abu Dhabi City Center, Science Direct, https://doi.org/10.1016/j.foar.2021.10.003 p.1
- [69] Kleingeld, Pauline and Eric Brown, "Cosmopolitan", The Stanford Encyclopedia of Philosophy (Winter 2019 Edition). Edward N.Zalta(ed.), URL= https://stanford.edu
- [70] Kluwer.W.(2020). "Arbitration", The International Journal of Arbitration, Mediation and Dispute Management, Vol.86, No.2, pp.109-228
- [71] Lacobuta et al., (2022). "Aligning climate and sustainable development finance through an SDG lens", "The role of development assistance in implementing the Paris Agreement", Elsevier, http://sciencedirect.com p.1
- [72] Lotfy.H.R., Stas, J. & Roubik, H. (2022). "Renewable Energy Powered Membrane Desalination- Review of Recent Development", Environmental Science and Pollution Research, https://doi.org/10.1007/s11356-022-20480-y p.1
- [73] Malkawi.B., (2022)." Arbitration Jurisprudence in Light of UAE Federal Arbitration Law and Dubai Court Cassation Decisions", The International Journal of Arbitration, p.1
- [74] Mayet. M.A., et al., "Applying Data Mining and Artificial Intelligence Techniques for High Precision Measuring of the Two-Phase Flow's Characteristics Independent of the Pipe's Scale Layer". https://doio.org p.1
- [75] Mipco(2022)." Our Project", www.mipci.ae
- [76] Mumssen.V.Y, Triche.T., Sadik, Dirioz (2017). "Status of Water Sector Regulation in the Middle East and North Africa", The World Bank, worldbank.org p.12
- [77] Muscat (2021)." Solar Powered Water Desalination Pilot Project Launched in Oman", SyndiGate Media Inc, www.proquest.com p.1
- [78] Koch.N., (2021). "Desertgeopolitics: Arizona, Arabia, and an arud-lands response to the territorial trap" Duke University, Academia, academia.edu pp1-101
- [79] Korea Development Institute (2018). "Preliminary Feasibility Study (PFS), Public and Private Infrastructure Investment Management Center, Public and Private Infrastructure Investment Management Center, preliminary feasibility.pdf pp.1-9
- [80] McKuin, Zumkehr, Ta, Bales, Viers, Pathak, Campbell, (2021)." Energy and water co-benefits from covering canals with solar panels Sierra Nevada Research Institute, University of California Merced, Environmental Studies Department, University Santa Cruz, https://doi.org/10.1038/s41893-021-00693-8 p.1
- [81] Mena (2021). "The costs of Municipal Water Supply in Bahrain, Revising Bahrain's municipal water terrific structure help conserve water, enhance cost recovery, and contribute to achieving social equity among water consumers". Https://menanwc.org
- [82] Rahimian.M., et al., (2022)." The Skill Assessment of Weather and Research Forecasting and WAVEWATCH-111 Models During Recent Meteotsunami Event in Persian Gulf", Frontiers in Marine, ProQuest,
- [83] Na.S., et al, (2022). "Real Options Analysis for Land and Water Solar Deployment in Idle Areas of Agricultural Dam: A Case Study of South Korea, MPDPI, https://doi.org/10.3390/su14042297
- [84] Nations Online, (2022)." Map of Western Asia, including the Middle East of African countries bordering the Red Sea and the Gulf of Aden", NationsOnline.org. p.1
- [85] Nato Review, (2022). "Opinion, Analysis, and Debate on Security Issues", nato.int p.1
- [86] Linares V.R., Li.Z., Sarp.S., Bucs.S.Sz., Amy.G., Vrouwenvelder J.S., (2014). "Forward Osmosis Niches in Seawater Desalination and Wastewater Reuse", King Abdullah
- [87] University of Science and Technology, Water Desalination and Reuse Center, Thuwal, Saudi Arabia Delft University of Technology, Faculty of Applied Sciences, Department of Biotechnology, Delft, The Netherlands, GS Engineering & Construction, Environmental Process Engineering Team, Grand Seoul Building 33, Jongno-gu, Seoul, Republic of Korea www.academia.com p. 135
- [88] Liu., Chao., (2022)." An improved gravitational search algorithm combining with centripetal force", Science Direct, https://doi.org/10.1016/j.padiff.2022.100378 p.1
- [89] Lotfy.R.H., (2022). "Renewable Energy Powered Membrane Desalination- Review of Recent Development", Springer Link,
- {90} MTC Project Leaders PVT Ltd, "Wolverhamton Birmingham United Kingdom", E-mail to Diane Roessler Weinert, September 1, 2022. p.1
- [91] Marubeni, (2020)." Marubeni Corporation has Entered into a Power Purchase Agreement for Fujairah F3 Independent Power Project in the United Arab Emirates ", www.marubeni.com p.
- [92] Mitchell.D. et al., (2022)." A Review: Challenges and Opportunities for Artificial Intelligence and Robotics in the Offshore Wind Sector", Science Direct, sexiencedirect.com p.1
- [93] NOAA (2022)." Homepage, National Oceanic", noaa.gov p.1
- [94] NTPC Ltd (2022). "Invitation for Bids (IFB)", E-mail to Diane Roessler Weinert
- [95] PapagiannopoulosN., Raitsos. E.D, Krokos. G, Gittings.A.J,Brewin.W.J.R,Papadopoulps.P.V,Pavlidou.A,Selmes.N,Groom.S,Hoteit.I.(2021),"Phytoplankton Hydrodynamic Regime in NEOM, Red Sea", Remote Sens 2021, 13, 2082.https://doi.org/10.3390/rs13112082
- [96] Petriat.P.,(2021)." The Uneven Age of Speed: Caravans, Technology, and Mobility in the Late Ottoman and Post-Ottoman Middle East , Cambridge University Press, doi.10.1017/SOO2074382100012X p.273
- [97] Pfeiffer et al., (2021). "The value of reputation", https://doi.org/10.1098/rsif.2012.0332
- [98] Planning and Statistics Authority (2021). "Qatar Voluntary National Review", https://sustainabledevelopment.un.org pp.4,5
- [99] President.Biden.J., (2021). "The White House Letter, Washington". E-mail

- [100] PR Newswire (2021). "Water Desalination Equipment Market Worth \$11.2 Billion by 2026- Exclusive Report by MarketandMarkets, Proquest-Wirefeed, Proquest.com p.1
- [101] Randolph.J.,(2009)." Practical Assessment, Research, and Evaluation ", Walden University, Volume 14 , Article 13, https://scholarworks.unmass.edu/pare/Vol14/iss1/13 pp 4,5
- [102] Randolph.J.J., (2009). "Practical Assessment Research & Evaluation" Walden University Vol 14, Number 13 ISSN 1531-7714, pp. 1,4,5,11
- [103] Revilla,M.L.D.,F.Qu,K.E, Seetharam, and B.Rao.(2021). "Sanitation" in the Top Development Journals: A Review. ADBI Working paper 1253, Tokyo:Asian Development Bank Institute. Available: https://adb.org/publications/sanitation-top-development-journals-review p.2
- [104] Rice University (2021)." Rice UniversitySustainability; Administrative Center for Sustainability and Energy Management", sustainability.rice.edu p.1
- [105] Roessler, D.W. (2020, August 8). "French Principaute de Monaco", Mediterranean Sea {Illustration}
- [106] Royal Society of Chemistry, (2022). "Synergy: A collaborative programme for industry", rsc.org
- [107] Sadiqa.A et Al., (2021)." Renewable Energy in Pakistani: Paving the Way Towards a Fully Renewables- Based Energy System Across The Power, Heat, Transport, and desalination Sectors by 2050", The institution of Engineering and Technology, Wiley www.researchgate.com pp. 8-19
- [108] Sakar.U., (2022). "Advanced and Automata Theory Sabatoge Game", pp. 1-10
- [109]Schlumberger, (2017). "Schlumberger", Schlumberger, 2022, slb.com
- [110] Schulkes, (2021). "Mega-projects and Small Enterprises: Understanding Saudi Arabian Banks' Role in Economic Development ", Middle East Institute, Washington DC, mei.edu
- [111] Science Direct (2021). "Desalination Plant", www.sciencedirect.com p.1
- [112] Service. R (2020). "Russia and American Power in the Middle East, Board of Trustees of Leiand Stanford Junior University", www.hoover.org p.1
- [113] Sharp.M.J., Collins.R.S., Humud.E.C., (2020). "Informing the legislative debate since 1914, U.S. Foreign Assistance to the Middle East: Historical Background, Recent Trends, and the FY 2021 Request", Congressional Research Service, https://crsreports.congress.gov pp.1-38
- [114] Sitchinava,B., (2021)." Water Security in the Middle East on the example of Iraqi Kurdistan", Ante Portas- Security Studies, DOI:10.33674/120215 p.1
- [115] Soldevila.A, et al, (2022). "Leak Detection and Localization in Water Distribution Networks by Combing Expert Knowledge and Data-Driven Models", polimi.it p.1
- [116] SOURCE, (2021)." SOURCE Hydropanels", source.com
- [117] Statista, (2021). "Primary energy consumption in the middle East from 1998-2020":, www.statista.com
- [118] Stanford (2021). "SLS: Policy Papers and Policy Analysis", stanford.edu p.1
- [119] Strauss.B, (2019). "Is the Mediterranean still Geo-Strategically Essential", Hoover Institution, Stanford University, www.hoover.org p.1
- [120] Suwaileh, Ali, Hilal, Pathak, Shon, (2020). "Engineering advance forward osmosis membranes and processes: A comprehensive review of research trends and future outlook", Centre for Water Advanced Technologies and Environmental Research (CWATER), College of Engineering, Swansea University, Swansea, SAI 8EN, UK, https://doi.org/10.1016/j.desal.2020.114455 p.485
- [121] Suwaileh.W. et al., (2020). "Forward Osmosis Membranes and Processes: A Comprehensive Review of Research Trends and Future Outlook", Centre for Water Advanced Technologies and Environmental Research (CWATER), College of Engineering, Swansea University, Swansea SA1 8EN, UK, https://doi.org/10.1016/j.desal.2020.114455 p.1
- [122] Swv1 Inc, (2021). "SWVL completes pre-funding of \$35.5 million of pipe to accelerate growth strategy" Securities Exchange Act, https://www.sec.gov.p.1
- Paiva.A.D.D et al., (2022), "Study of tests for trend in time series", Department de Estatistica, ufla.br p 2-14
- [123] Population Reference Bureau (2022). "Finding the Balance: Population and Water Scarcity in the Middle East and North Africa", prb. org p.1
- [124] Power Technology (2022). "APC 1,550 MW CCGT, Umm AL Nar, Power-Technology com p.1
- [125] Sadiqa.A et. Al (2021). "Renewable Energy in Pakistani: Paving the Way Towards a Fully Renewables-Based Energy System Across the Power, Heat, Transport and Desalination Sectors by 2015", The Institution of Engineering and Technology, Wiley, www.researchgate.net pp.4-19
- [126] Tamosaitiene.J., Sarvari.H., Chan.D.W.M., Cristofaro.M., (2020). "Assessing the barriers and risks to private sector participation in infrastructure construction projects in developing countries of Middle East", Sustainability, 2021, 13, 153, https://doi.org/10.3390/su13010153 pp.1-20
- [127] The Church of Jesus Christ of Latter- Day Saints, (2021)." Special Book of Mormon Videos Episode Celebrates Church's Founding Event", https://newsroom.churchofjesuschrist.org p.1
- [128] The Intergovernmental Panel on Climate Change, (2022). "The intergovernmental panel on climate change (IPCC) is the united nations body for assessing the science related to climate change", ipcc.ch pg.1
- [129] The Red Sea Development Company (2021). "The Red Sea Development Company and Source Global, PBC join forces to set new standards for sustainable water", https://www.theredsea.sa p.1
- $[130]\ The\ Royal\ Society,\ (2022).\ ``Artificial\ Intelligence'',\ royal society.org\ p.1$
- [131] The Royal Society, (2016). "Machine learning in smart cities, transport and utilities", The Royal Society, royalsociety.org
- [132] The Royal Society, (2022). "Royal Society responds to details of the UK energy security strategy", The Royal Society. P.1
- [133] The Royal Society, (2022). "The Royal Society's response to BEIS's independent review of research bureaucracy", royalsociety.com p.1
- [134] Telecommunications and Digital Government Regulatory Authority (2022). "The UAE Water Security Strategy", w.ae
- [135] UDASIN., (2021)." Israel, Jordon, UAE sign pivotal deal to swap solar energy, designated water, The Hill, www.thehill.com p.1
- [136] United Nations Climate Change (2021). "What is the United Nations Framework Convention on Climate Change", https://unfccc.int
- [137] Universitat Innsbruck, (2022). "Anonymized real small and large case studies", Unit of Environmental Engineering, uibk.ac.at p.1
- [138] Whitefield.C.R., (2021). "Solar Thermal Hot Water for Hotels", Academia Letters, www.academia.edu pp. 1-8
- [139] Sadiq.R.,et al. (2022). "Integrating remote sensoring and Social sensing for flood mapping", http://sciencedirect.comp.1
- [140] Samadi.R., (2022). "Why they need us; the Abraham Accords and Middle Eastern Innovation", stanfordreview.com p.1
- [141] SAPCO, (2022)." Shuweihat Asia Power Company", sapco.ae
- [142] Sarkar., (2022). "Advanced Logic and Automata Theory Sabotage Game", isichennai.res.in pp. 263-276
- [143]Shen.C etc al, (2021). "The Chi-Square Test of Distance Correlation", Department of Applied Economic and Statistics, University of Delaware Institute for Computational Medicine, https://arxiv.org p.1

- [144] Task Force Team, (2022)." Travel to Russia", E-mail to Diane Roessler Weinert, March.11,2022
- [145]Tefagh.M., Boyd.P.S., (2018). "Quantitative Flux Coupling Analysis", Stanford University, www.stanford.com p.1
- [146] The Royal Society, (2021). "Mission & Priorities", Royalsociety.org
- [147] The World Bank (2021). "Data, Jordon", data.worldbank.org
- [148] The World Bank (2021). "Environmental and Social Policies", worldbank.com
- [149] The World Bank, (2021). "Red Sea and Gulf of Aden Strategic Ecosytem Management", worldbank.com
- [150] The World Bank (2010).," Red Sea Dead Sea Study Program to Report on Latest Findings " worldbank.com
- [151] The Royal Society, (2021), "Reflections on the 2021 Pairing Scheme", royalsociety.org p.1
- [152] The World Bank, (2020). "World Bank and Partners Invest US\$117 million in Water for Palestinians in Gaza" worldbank.com
- [153] The World Bank 2021. "lack of Water Linked to 10 percent of the Rise in Global Migration", https://www.worldbank.org
- [154] The World Bank (2021). "Middle East and North Africa Multi Donor Trust Fund", The World Bank Group, worldbank.org p.1
- [155] The World Bank, (2020). "World Bank and Partners Invest US\$117 million in Water for Palestinians in Gaza, worldbank.org
- [156]Tiller.G.R.et al., (2021). Understanding Stakeholder Synergies Through System Dynamics: Integrating Multi-Sectoral Stakeholder Narratives into Quantitative Environmental Models "National Institute for Marine Research, Stockholm, Royal Institute for Marine Research, DOI:10.3389/frsus.2021.701180
- [157] Tripathi et al, (2018)." A valuation of Abraham Maslow's theory of self-actualization for the enhancement of quality of life", Indian Journal of Health & Wellbeing.2018, Vol. 9 Issue 3,p499-504.6p., Stanford University, Stanford.edu p.1
- [158]UNESCO Regional Bureau (2022). "About UNESCO Region Bureau for Science and culture in Europe", en.unesco.org p.1
- [159] USAID, (2022)." Middle East North Africa Investment Initiative (MENA 11)- Iraq, usaid.gov p.1
- [160] Ward. C., (2022). "State Capitalism, Capitalist Statism: Sovereign Wealth Funds and the Geopolitics of London's Real Estate Market", A Economy and Space, DOI:10.1177/0308518X221102157 p.1
- [161] Williams.A.O., (2022). "Agritech gets \$8 Billion Boost as U.S. Agriculture Secretary Vilsack Addresses Dubai Climate Summit", Forvbes.com p.1
- [162] WRAP, (2018)."WEF Storm Water Report: Satellite data helps volunteer group build rainwater systems for Middle East school", wrap.com p.1
- [163] Xue.H., (2022). "Improving Productive Employment in Iran: Improving Over education, Aging, and Promoting Renewable Energy", Yonsei University of Business, Seoul, Republic of Korea, DOI:10.4236/me.2022.135033 p.1
- [164] Yaghoubzadeh-Bavandpour, A., Bozorg-Haddad, O., Rajabi, M. et al."Application of Swarm Intelligence and Evolutionary Computation Algorithms for Optimal Reservoir Operation". Water Reservoir Manage 36, 2275-2292 (2022). https://doi.org/10.1007s11269-022-03141-0
- [165] Zaia.Y.Y., et al (2022)." Investing BIM level in Iraqi Construction Industry ", Science Direct https://doi.org/10.1016/j.asej.2022.101881 p.1
- [166] Zellner, Abbas, Budescu, Galstyan, (2021). "A survey of human judgement and quantitative forecasting methods", Royal Society, University of California, Los Angeles, CA, Fordham University, Bronx, N.Y., https://roya;societypublishing.org pp1-28