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SOCIAL DIMENSIONS OF SUSTAINABILITY IN EDUCATION DUE TO  
CLIMATE CHANGE –  
A STUDY ON MENA REGION

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## ABSTRACT

This paper is based on the Social Dimensions of Sustainability of Education due to Climate Change. Thus the whole research is done as in quest of reforming MENA region to an utmost importance and to an utmost important place and position as in par with other absolutely developed nations in the world. In this paper emphasis is put on how the climate change effects the education of MENA region. The effect of COVID-19 on the income is also discussed. Moreover the impact of this on the education of MENA region is also presented. Many solutions are thought of such as a vision that envisages the world and that vision is as with all its success and that is, the 2030 Vision. We will try to study what happens due to climate change in the education. Moreover we will also study how sustainable development of education and educational development should be established in MENA region.

### 1. Introduction

Education plays an important role but it not been given attention in making a society that will all be hale, healthy, and a well sustainable. Such society will all be up to interdisciplinary activities. Comparison has been done between

MENA region education and other developed region. (Maracas and Kostoulas-Makrakis 2014)[1].As in order to address the challenges of MENA due to climate change, the interdisciplinary collaborations are as an essential need and as well for modernizing higher education the same interdisciplinary collaborations are needed. It is all further so that such interdisciplinary collaborations are a need must for any productive change. There is a dire need rising for interdisciplinary expertise and thus such a dire need arises for Middle Eastern universities to cultivate such interdisciplinary expertise amidst the teaching faculty. The serious threat to all dimensions of sustainable development are as follows Climate change is additionally expected to bring about huge scope populace developments across as well as within regions, resulting in brain drain, and also in lower economic growth as well as in threats to the security of the nation . Climate change represents a genuine danger to all components of practical turn of events. Handling environmental change, that is climate change, through adaptation and mitigation gets gigantic open doors to the field of education, as it can possibly drive practical turn of events, which are nothing but sustainable development. The problem statement follows as below: that a sustainable development of education and educational development should be established in MENA region. To establish such is the main problem and towards establishing such none as to the researchers have so far researched and tried. This is to fill the gap of research or to fill such a problem gap this research is being done.

#### **2. 2.0.1. Jordan:**

Jordan's first loan, that is, \$250 million, has decisively developed the nation's electricity and water sectors and this loan is known as First Programmatic Power and Water Reforms Development Policy Loan. Development policy funding loan comes in backing up Jordan's endeavors to diversify its supply of fuel in search of power generation. This fund is as from the World Bank, which thus supports Jordan. Also, this fund assists the nation to move power generation by sheer means of speeding up the resources of renewable energy, and thus maximizing water resource (WBG, 2016) [2].

#### **2.1.2. Morocco:**

Morocco utilized \$43 million from the World Bank – Global Environment Facility (GEF) and thus the country used a grant rather from the World Bank. Such a grant as this was indeed earnestly utilized by the Moroccan Solar Energy Agency to test the achievability of solar power and this agency is a government agency. The fund was thus utilized for the end of testing the solar thermal technology's feasibility at Ain Beni Mathar. This laid a preparation for the World Bank's Noor-Ouarzazate complex, Climate Investment Funds (CIFs), Clean Technology Fund, African Development Bank and European funding institutions to scale up and obtain more than \$3 billion required. The system quickened cost reduction and adoption of business of enormous scope , low greenhouse gas generation technologies while assessing solar thermal technology 's practicality to advance replication in Morocco and somewhere else. (WBG, 2016)[2].

### **2.1.3. Lebanon:**

The IFC–Canada Climate Change Initiative, the IFC has given Fransa Bank and its arm of leasing to the Lebanese Leasing Company, with \$20 million to help Lebanon's first renewable energy financing. The IFC additionally plans to keep extending its business in sustainable power sources, that is, renewable energies and making new business sectors in the MENA region. Additionally there is an opportunity to increase renewable energy financing by means of financial institutions, based upon the specialized technical assistance tools (WBG, 2016)[2].

### **2.1.4. Iraq**

World Bank is subsidizing a US\$ 210 million undertaking in order to upgrade productivity of drinking water of Baghdad and wastewater administrations. Leakage of untreated wastewater as well as insufficient sewage treatment adds to waterborne ailment outbreaks and aggravates general wellbeing and ecological issues. Just environmental change is worsening these issues. By means of institutional strengthening both of urban water and utility management, the Baghdad Water Supply and Sewerage Improvement Project will address these problems rather. Also by means of investing in drinking water supply and also in wastewater infrastructure, adding a construction of service reservoir with capacity of 135,000 cubic meters totally to ensure well the improved quality as well as reliability of water supply for over 550,000 people, Baghdad Water Supply and Sewerage Improvement Project will address these problems rather (Sieghart et.al., 2018)[3].

### **2.1.5. Iran**

Iran's economy is relied upon to reach as far down as possible and recuperate marginally in 2020 and 2021, accepting no further US sanctions. Iran's GDP growth is predicted to be 0.1 percent in 2020 and 1.0 percent in 2021. In any case, while not factored into the forecasts, the negative risks of rising tensions with the United States can't be precluded. The climatic change in monetary development, that is, in economic growth in Iraq is extended to proceed in 2020, topping at 5.1%, before decelerating to 2.7% in 2021. The country should be cautious about spending. The budget figures a 27 percent expansion in year-on-year spending because of critical rises in the wage bill for the public sector, loans, products and services, and allotments to the Kurdistan Regional Government (International Monetary Fund, 2019). An extending budget deficit would involve more restricted assets devoted to reconstruction efforts and buffering against a possible fall in oil prices.

### **2.1.6. Kuwait**

The government is putting forth attempts towards climatic changes and to control state participation in the economy, advances promoting the private sector participation and development and reduce or remove almost the boundaries or barriers to trade as well as investment. Key activities incorporate both nonexclusive and explicit privatization laws and public-private participation projects in development of real estate, education, management of water and waste water management, tourism, transportation, as well as solid waste management. These endeavors go the correct way, however more should

be done, particularly in terms of enforcement of competition and advocacy, if Kuwait is to open its maximum capacity, that is, potential.

#### **2.1.7.Sudan**

The World Bank strategy alludes to Sudan's poverty profile, poverty reduction barriers and is steadily consistent with the government's own policy as laid out in the I-PRSP. Perceiving that inescapable clash and social and financial emergencies have deepened suffering in Sudan, tending to the primary basic burdens that prompted the far reaching struggle and the current social and monetary emergency would frame the Bank's key commitment under this ISN. This is additionally with regards to the 2011 WDR proposals as well as recommendations. Sudan needs to yield through the financial shock brought about by the southern secession, and put the economy on a practical way of inclusive growth. Guaranteeing changes advance more noteworthy public participation and 18 discussions empowering more prominent straightforwardness of public bodies and encouraging activity to lessen corruption and political influence is crucial both to long hauled strife reduction and to shared development sustainability

#### **2.1.8.Tunisia**

Bank underpins a US\$ 100 million activity to help management of the countryside change in climate and admittance to the economic opportunities for focused rural community networks in Tunisian areas North West as well as Center West. Activity, directed at rural community networks burdened with disadvantages, looks to energize sustainable natural resource management, which is at present under tension from environmental change, overgrazing as well as deforestation. The coordinated way to deal with landscape advancement can possibly build the area's yield by very nearly five times from current US\$ 16 million to US\$ 75 million, with possibility to make around 25,000 positions (Sieghart et.al. 2018)[4]. The changes which turned out to be reforms passed by Tunisia for equivalent inheritance rights and the new laws condemning viciousness against ladies in nations, for example, Jordan or Algeria were viewed as major legal milestones in empowering women. Tunisia was the main nation to present these measures and the World Bank evaluated that they were critical in explaining the renewed dynamism of its economy. Different nations are making similar strides, with the expectation that financial profits will likewise emerge. A few investigations propose that the mix of three components (urbanization, digitalization and social activism) has been key in clarifying why a few nations have accomplished more advancement than others (Goll. E et al., 2019)[5].

#### **2.1.9.Saudi Arabia**

Saudi university curricula should be updated so that Vision 2030 can be refreshed and obtained as in the efficient turn of events of development as well as utilization of renewable energy and its productive use. As along with providing applicable information to both science and non-science students of Saudi, new curricula will help them select right actions or to take actions on problems such as energy-related. By 2025 the condition will be a long way from perfect and there is as yet a long marching ahead towards equality, yet

progress accomplished in female empowerment is a lot higher than other indicators, for example, political opportunities as well as freedoms, regional imbalances or youth unemployment. That is, training that prompts new data will educate their mentalities and eagerness which, as a result, may impact their conduct. Energy literacy will drive sustainability and productivity oriented culture to accomplish the United Nations SDGs and Saudi Arabia's 2030 dream (Alghamdi. A. K. H, 2020)[6].

#### **2.1.10.Libya**

The OECD is teaming up with Libya Enterprise, the SME agency that is associated with the Ministry of Economy, to make a point by point concentration on the study of The Dimension of Development: SMEs in the Reconstruction of Libya: Preparing for a Post-Conflict Economy. Usage of the recognized activities will uphold rebuilding endeavors once stability is regained.

#### **2.1.11. Egypt**

The OECD Digital Economy Outlook 2015 researches the current advancement of national policies for the digital economy. This incorporates Egypt's 2014-2020 arrangement of plan, "To accomplish the digital economy through ICT, to give steady stability, equality, and social justice for all," pointed toward transforming Egypt into an advanced digital society, further building up the ICT industry, and setting up Egypt as a digital hub and keep up sustainability world wide. The Renewable Energy Market Report of the International Energy Agency gives an outline of the renewable energy prospects in the globe. The Agency has likewise contemplated and delivered an Insights Paper on the best way to advance and improve the utilization of environmentally friendly power such as renewable energy and energy preservation in a variety of nations, including Morocco, Tunisia, Egypt and Jordan. This is part of a broader project sponsored by the EBRD, which expands on the IEA system to assess and track the penetration of renewable energy and energy efficiency technologies.

#### **2.1.12. UAE**

The UAE is very much set to turn into the Middle East region's hub of education (Knight, 2013)[6]. Global migrants in UAE, for instance, represented around 80% of resident in 2000 and 88 percent in 2017. Toward the start of the twenty-first century other oil-producing Gulf nations – Qatar, Kuwait, Bahrain, Saudi Arabia, and Oman – additionally got proportionately huge quantities of economic migrants, overwhelmingly men. Somewhere in the range of 37 and 76 percent of the resident populaces in those nations were born abroad in 2017. The noteworthy extent of Jordan and Lebanon migrants, containing 33% and 32% of their populace in 2017 individually, are generally Palestinian refugees as well as exiles from Syria and also from Iraq (UNICEF, 2019). The climate co-benefits such as which are in agriculture, atmosphere, energy, as well as in developed areas (adding green buildings and wastewater treatment along with) also have sturdy energy to increase. MNA counter-tries have submitted rather some certain proposals, which proposals, as submitted by MNA counter-tries, are often less ambitious in NDCs terms than already afoot changes, which changes are already under way. The region has many goals and one of the

region's main goals is to back the transition towards renewable energy in electricity, transportation, urban growth and water, and also rather energy resource rationalization and in addition, urban growth is also a prior consideration, with a view and want to developing (WBG, 2016)[2].

### **2.1.13. Djibouti, Yemen, Egypt**

World Bank portfolio in Djibouti is comprised of 14 projects funded by the International Development Association ( IDA ), surmounting up to a total US\$ 209 million. This particular portfolio focuses vehemently on educational training, health, networks of social security, electricity, growth of rural community, reduction of urban poverty, modernization of public administration, private sector governance and creation, with emphasis on women and youth. Thus the portfolio focuses adroitly as in quest of reforming Djibouti. There would be a specific access due to such a focusing operation, which would really increase the access to social and economic services in order to make the country get adapted with the changing environment, yielding resultant economic opportunities for both the refugees as well as the hosting communities. This project will add also in itself a contingent emergency response component (CERC) in order to prop up emergency preparedness as well as response capabilities in Djibouti (WBG, 2020). One Arab woman was selected as The Time magazine person of the year 2020 and since then, the women participation in the labor force has steadily increased and has steadily been increasing. Competing with men, women catch the newly created jobs both in e-commerce and tourism. These two economic sectors are newly cornered by women. One success story amidst the success stories told is the case of a Syrian refugee in Lebanon who initiated and opened a start-up with the aim of optimizing domestic energy consumption. In 2021, she was awarded the EU prize rather for women innovator, and soon, her company made it to the top ten environmentally friendly companies globally by Forbes's newly created ranking scale (Göll, E., Colombo, S & Soler, E, 2019)[5].

## **3. Methodology**

When we take the cases of countries like Jordan, morocco, Lebanon, Iraq--each has a high climate change impact as well as high measures of development in the fields as Power generation field, solar energy field, low emission field of green- house gasses waste -water treatment, field of re-use innovation in clean technology, field of services in drinking water, field of environmental problems. Sudan: climate change doesn't occur merely in Sudan but occurs to reduce the poverty as also to increase prosperity rather with government policies. Countries like Kuwait, Saudi Arabia, UAE, Qatar, Oman,--in these countries following occur: Transformations, women empowerment, job market participation in, enrollments of female in higher education, urbanization and digitalization along with social activism. Countries like Egypt, Algeria Jordon, Morocco, Jordon have the following occurrences such as Digital economy, retail, banking, education, media, health, women empowerment—these occurrences take place and their improvement too are taking place assuredly. Education or the educational quality is failing in most of these countries in

region of MENA. Many children leave schools void of any confirmation to their skills and thus they are leaving the schools without basic skills in literacy as well as numeracy. Further there is a wide difference in learning results by socioeconomic status, geography, as well as gender. When the rates of secondary as well as tertiary enrolment are comparable with OECD countries, too many graduates don't have skills expected and required by labor market, which position results in such high rates of unemployment amidst youth, social exclusion, and also marginalization. These graduates' frustration, mixing with teacher absenteeism as well as shortage of teaching materials, such all contribute to low trust in system and hence in state itself rather. Levels of education are generally low for the registered Syrian refugees. When we study the case In Jordan and Lebanon, 80% of refugees don't have more than primary education rather. In order to alarm, almost 2.3 million of displaced in Syria don't even receive any formal education and also it is so that almost 50% of 950,000 registered school-age Syrian refugee children in host countries aren't enrolled at all in school. Non-formal education caters to about 10% of registered school children.

#### 4. Results and Discussion

Environmental change, that is, change of climate presents colossal difficulties and open doors for advancement, making it all as essential as that atmosphere and improvement be handled in a coordinated manner. World will have to take care of nine billion individuals by the year 2050, give reasonable energy access to all, and also stretch out lodging as well as administrations to two billion new urban occupants .By 2030, the nations in MENA will confront a 23% of expansion in young populace (kids aged 5-17) bringing about the requirement for around 25 million extra students to be obliged in the frameworks of educational training, which will put an extra weight on giving quality education to all new schools. Class rooms are required to be constructed, new educators prepared and selected ,and educating and learning (counting educational contents and techniques) need to react to the necessities of a quickly evolving world. Because of the young populace of the school age in the region is expanding when we come to be generally speaking, and thus when the population of the school age is increasing, this expansion is going on at various rates for various age gatherings, influencing the degree of investment required for every educational training level. As for instance, during the period of 2015 to 2030, extended increase in such young populace will be higher for teenagers at lower-and upper secondary education level than for kids at pre- primary or primary level. Because of move in age structure of populace related with demographic change, general populace increase in MENA is higher among youths than children. Hence, interest for educational training service arrangement is moving towards lower- and upper secondary education (+7.0 million/+8.6 million young adolescents between 2015-2030). Be that as it may, since primary education stage has longest term (4-6 years), interest for primary education stays high (+7.9 million kids between 2015-2030). Quantitative increase will be in young populace, that is, school-age population,

somewhere between the range of 2015 and 2030 as rather in thousands .By 2030, nations in MENA area will confront an expansion of 25 million (+23 percentage) extra students as to be obliged in educational training framework, which will put an extra weight on giving quality training or education to all. In fact all that the nations in the MENA area don't address this tremendous influx of kids and youths into the educational framework or frame work of education in a satisfactory way, an extra 5 million kids (+27%) might be out of school. Supposing that out-of-school children rate continues as before all through the period till 2030, projected increase in quantity of out-of-school kids will all be as most noteworthy, that is, the highest amidst teenagers at lower- and upper-secondary level. . A large number of achievements towards education for all accomplished so far might be turned around, that is, reversed.

## 5. Conclusion

This paper concludes with a vision that envisages as that success of 2030 Vision rests well on active involvement as well as empowerment of relevant stakeholders at all levels. Further the success rests indeed on development of comprehensive assessment mechanisms and based on which we can measure progress towards sustainability in the MENA region which is as with rapidly increasing multiple pressures on water, energy and food security, drive of social-ecological systems and education at multiple scales and thus it is all so towards critical thresholds in countries of Middle East and North Africa (MENA Region). Thus, sustainability initiative on education is with varying objectives confirmedly and the same sustainability initiative focuses on developmental needs of present as well as future generation under varying conditions including climate change.

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