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Post COVID-19 Development in the Middle East

Why Environmental Sustainability Matters

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For decades, scholars have been urging the world to pay attention to the extent to which humankind has transformed into a destructive global force capable of altering Earth's biological, physical and chemical systems. With the trends of climate change, deforestation, overconsumption and depletion of the world's resources becoming ever more apparent, there is no denying we have entered into the Age of the Anthropocene. This geological epoch reasserts human activities transcending the Earth's capability to sustain it (Steffen et. al, 842-843, 2011). Now with the inception of the COVID-19 pandemic, the ongoing spread of COVID-19 or SARS-CoV-2 virus , it has become evident by scholars that it is an outcome of "growing global population and overexploitation of natural environments" (Arora and Mishra, 118, 2020). Moreover, scholars such as Dr. Ian Goldin in 2013 has long predicted the inception of a near-future economic crisis that would be caused by a pandemic (Source). In light of all these trends and discussions, the world still has not given environmental sustainability the prioritization and attention that is crucial to the alleviation of these issues. This paper intends to assert the significance of prioritizing environmental sustainability and sustainable development in governance and planning moving forward from COVID-19 pandemic. This will be illustrated by examining the environmental causes and impacts of the COVID-19 pandemic on the region and asserting how environmental sustainability can and should be incorporated in a multitude of disciplines. Finally this paper will also illustrate how a synthesis between ambitious development and environmentally conscious angles and practices is not only crucial, but beneficial for the Middle East to engage in.

COVID-19 has offered us a golden opportunity to see what could happen if the world came to a halt, and the repercussions of such to the Earth. As part of the crucial measures to ensure the containment of COVID-19, the global and local communities all went under a

lockdown period, which had forced the population to confine to their homes, except in cases of absolute necessity. Moreover, this lockdown period also meant the sudden shutdown and reduction of commercial travel, tourism, and a range of educational, economic, and industrial activities. These lockdowns have exhibited the range of ways the environment can heal itself at a rate unprecedented by experts. In the Middle Eastern region alone, which reflects similar global trends. In Egypt, the halt of industrial activities and the closure of coastal beaches has resulted in large improvements in the water quality of beaches, groundwater and the Nile River, which are all visually cleaner and clearer (Mostafa et. al, 3-4, 2020). There has also been a significant reduction in environmental noise population, which has decreased by 75% (Ahramonline, 2020). Following the halt of traffic and industrial activities, the "daily consumption of gasoline and diesel reduced by 25% and 9% respectively", while a 15% and 33% reduction of NO_2 emissions in Cairo and Alexandria governorates is also seen, respectively (Mostafa et. al, 11, 2020). However, Egypt has seen negative impacts on the environment, including an increase in municipal solid waste with the rising trends of online shopping and food consumption, as well as medical solid waste which has increased from 70.5 tons/day in 2014 to 300 tons/day in 2020 (Mostafa et. al, 4, 2020).

In other parts of the MENA region, statistics are less accessible. However, the Mohammed Bin Rashid Space Centre reported a significant decrease of NO_2 pollution and improvement in air quality across the GCC states (2020). Also, while the GCC states have been increasingly engaging in renewable energy projects, with almost 900 projects across the region, the pandemic has forced these projects to be subject to delays, shutdowns, and reduced progress and prioritization (ALTIOS, 26-27, 2020).

Observing the response to the COVID-19 pandemic, it is apparent that a rapid global response was exercised because it was framed as a great and imminent danger. In cases of global environmental crises that have existed for decades and pose more longer term risks, the danger is less apparent since it is framed as a warning to a future reality, which is why global responses typically are less effective in this area (Bouman et.al, 1, 2020). However, experts have warned that "even more deadly and destructive disease outbreaks" will emerge unless their root cause "the rampant destruction of the natural world [by humans] - is rapidly halted" (Carrington, 2020).

Environmental sustainability is an approach and discourse that can be applied to all disciplines and sectors, as every area in one way or form, is impacted by the environment or impacts the environment. The goal is clear, and that is engaging in activities that "the needs of the present without compromising the ability of future generations to meet their own needs." (Brundtland et. al, 41, 1987) and learning "to live within the limitations of the biological and physical environment" (Goodland and Daly, 1003, 1996).

For the MENA region, incorporation of environmental sustainability is vital given the reality of harsh climate dynamics and cultural patterns. The MENA region is considered the "second most polluted region in the world, with highest CO2 levels per dollar of output" (Jayaraman et. al, 447-448, 2015). Due to harsh desert climates, the GCC states and North Africa in particular require to consume energy for consistent electricity generation and water desalination, which has been tied significant sources to greenhouse gas emissions and overall energy consumption, which has been largely dependant on fossil fuels for the recent decades (De Felice and Gibson, 2013; Jayaraman et. al, 448, 2015). Moreover, the MENA region also has a serious food waste problem, where it is reported that 34% of food either lost or wasted across the

region, which "aggravates food insecurity, scarcity of water and environmental footprints/impacts while increasing food imports in a region that is already highly dependent on import" (El Bilali and Hassen, 2, 2020). Moreover, wealth inequality has caused dynamics where "problems of undernutrition coexist with those of over-nutrition" (El Bilali and Hassen, 2, 2020). So it is crucial for this region to aim to achieve long term sustainability goals.

Moving forward, the COVID-19 pandemic has illustrated where much of the damage on the environment comes from and that there are many potential alternatives to the contemporary set-up of the world that still ensures maintenance of economic activities, educational institutions, and access to all needs and wants populations desire. Hence, I believe it is both crucial and beneficial to start shifting toward more sustainable practices that align with green practices and incorporate resilient infrastructure and advanced technologies.

In regards to urban development and planning, both private and public officials in states who actively engage in ambitious infrastructure projects can synthesize their visions for infrastructure and urban design with what is referred to as an 'Antivirus Built Environment'. This approach not only aims to ensure a defensible urban design from future pandemics, but also applies old environmentally sustainable urban typologies that ensures such defense against diseases (Megahed and Ghoneim, 2020). From the bubonic plague of the dark ages to the Spanish Flu of 1918, historically urban reforms and renewal has been to a significant extent been impacted by pandemics and plagues, and they all point to the same problems; overcrowding, poor sanitation, and the esthetic features that promote "the healing effects of light, air, and nature" (Megahed and Ghoneim, 2, 2020). This pandemic has exhibited more or less the same type of demands, spaces that ensure social distancing and prevent overcrowding. In terms of urban design, Megahed and Ghoneim point to approaches that avoid high density cities and

support more horizontal expansion of cities, decentralization of services and facilities, urban farming, and walkable and cyclable infrasture (4-5, 2020). Moreover, implementing designs and spaces that allow for nature to heal, which includes the inclusion of more open green spaces, low-rise buildings and less claustrophobic buildings with large windows and courtyards (Megahed and Ghoneim, 5, 2020).

In development of the educational sector, the introduction of blended teaching and learning proved to be effective and convenient particularly with students in higher educations. However, the unsustainable reality of education is apparent, with a clear digital divide and unequal access to quality education, it makes sense why the global education community view the pandemic as "an opportunity to build back better—to re-imagine and re-design education for the future" (Iyengar, 77, 2020). In light of the gathering of global education leaders at the UNESCO's Future of Education Commissions, the top priorities in education is clear, which includes the "growing role of digital technology, how to reach the most vulnerable students, and how to design a meaningful curriculum for the future, one grounded in global citizenship and sustainable development" (Iyengar, 77, 2020). As for curriculum, scholars have pointed to educating students on how to healthily interact with the world rather than "nourishing egoistical dreams" (Wolff, 2, 2020). Wolff suggests that education should "leave the door open and make it possible to question the entire idea of sustainable development as the right trail, and inspire the students of today and tomorrow to create new visions and paradigms to make this world a better place" where unequal access to education ceases to exist (Wolff, 4, 2020). However, I believe this will only be possible if students are exposed to sufficient information about environmental sustainability, and are offered opportunities to engage with sustainable practice.

As for synthesizing environmental considerations with the economy, it should be asserted that MENA entities should not "undermine the action needed to limit the threats from climate change, water scarcity, water and air pollution, soil degradation, desertification and biodiversity loss" (OCED, 19, 2020). The pandemic has offered an opportunity for governments to start shifting their budget to the essential and the necessary and aligning their responses to areas that avoids even more economic suffering and socio-economic instability. States should seriously allocate their stimulus measures to "real economic transformations and technological innovations" which focus on the spread of smart sustainable cities, increasing potential for renewable energy projects and desalination projects as well as waste infrastructure development (OCED, 19, 2020).

Moreover, the companies and their workspaces will have to experience a new transformation toward more online-based and technological landscapes. The ability to work from home not only will provide greater work-flexibility for employees, but it will also reduce pollution by cutting back on transportation usage, and in turn greenhouse emissions, as well as efficiently encourages online-based and technological upgrades to sufficiently work remotely. If employees opt for remote-work, they should also be given the necessary guidelines on how to reduce home energy consumption sustainably (Center for Ecotechnology, 2020). Similar to urban spaces, the work space should shift away from tight cubicle set-ups and promote better ventilation and wide, private work stations across larger spaces, naturally promoting a better work environment (Molla, 2020).

Finally, overconsumption of food and other consumer goods, and the subsequent issues of waste must seriously be mitigated by "a comprehensive, shared, and integrated regional research agenda that is appropriately supported by policy interventions" (El Bilali and Hassen,

15, 2020). On the local-level scale, an emerging sustainable consumption culture may be key to tackling these issues.The rise of secondhand and thrifting-focused SMEs in the UAE during the pandemic offer an mere example of how this can occur. The popularization of buying secondhand in UAE has proved that there is a youth base striving to support environmental sustainability through business practices and promoting sustainable living, it may actually help countering the trends of overconsumption and waste culture infecting the community (Kshemkalyani, 2020; Broad, 2019). As asserted by the literature, "if sustainability was among the clients' priorities, value managers would be obliged to consider it and then work toward achieving it" (Al Saleh and Taleb, 56, 2010).

In conclusion, the COVID-19 pandemic has given us a clear picture of the exploitative relationship we have with the natural world. This region must learn from this experience and get rid of the unnecessary practices the global community have been practicing by incorporating environmental sustainability in our lives and area of expertise.

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