

BETTERING GOVERNANCE FOR A PROACTIVE EDUCATION

Education for the 21st century may not be as advanced as the creators of the Millennium Development Goals would have liked to think it is for there are some 250 million primary and secondary school aged children who unable to read, write, or demonstrate basic mathematical skills, 130 million of which are in school, questioning “talk and chalk” based teaching methods and government supervision.¹ Education in coordination with governance has failed to address all aspects of proactive education in teacher absenteeism, academic fraud, job purchasing, and budget leakages. The educational sector itself comprises of up to 20-30% of a country's budget, making it more susceptible to fiscal fraud and mismanagement with the most detrimental repercussions in the future of moral shaping education.² Likewise, in the midst of financial threats, the fallouts of nepotism and a lack of infrastructure place burdens not only on those who seek education in classroom settings—such as those in India who face 25% teacher absenteeism in the mushrooming of educational institutions due to privatization²—but those in refugee camps as well. Ultimately, it is through these malpractices within governmental bodies that prompts necessary action in the coordination of international policies and internal, regulatory supervision.

Bahrain has always had the highest regard for education in the switch from an oil to knowledge based economy. With some of the most developed and reformed educational bodies within the Gulf Region including the University of Bahrain,³ and the first country in the region to institutionalize a public school system for females in all levels with 62-70% of the women pursuing a higher education in college,⁴ Bahrain looks to promote nothing short of the highest educational standards. Additionally, in the Ministry of Education's support for technology assisted learning through iPads, laptop, and smartphones along with King Hamad bin Khalifa's King Hamad Schools of the Future in 2004,³ Bahrain looks to popularize technology based education with respect to cultural individualism within educational institutions. Consequently, Bahrain would like to pay close attention to technology based anti corruption facilities for the protection of government accountability, the assurance of proper payments for educators to deter from educational misconduct, and the restructuring of refugee camp education to promote creativity and sustainability.

On account of both the internal corruption and misuse of teacher payment, Bahrain would like to increase internal transparency through a combination of sub-sector evaluations, regulatory forensic audits, e-procurement, and technology assisted data mining. Bahrain sees it necessary to be able to track the internal funding of regulatory bodies in the use of big data to monitor tax havens, data matching, and fraud analytics as well as observing multilateral development banks (MDBs) and their use of cross-checks and data analytics software for public and private sector transactions. On the other hand, Bahrain would also like to involve the public in corruption detection through mobile applications created by the World Bank such as the ‘Integrity’ app which came after the success of the ‘I Paid a Bribe’ app created by Swati Ramanathan and Sridar Iyengar in 2010 in India.⁵ These applications will allow real time registration of bribery in the education system with geotag location detection and Quick Response (QR) tags for images of infrastructural inefficiency. On the other hand, Bahrain would also like to ensure proper support

for teacher payments through direct deposit systems which limit transactions solely to bank accounts and can be established as a preliminary teacher job requirement. Similarly, Bahrain would like to initiate the increase of teacher salaries from ranges within \$100 per month to ranges of \$120-\$450 per month over a period of 8 years or allow for the option of 15% pay raises at the end of 5 years. Countries should also pay close attention to teacher incentivization in response to ghost teachers through salary progressions from either high starting salaries with an eventual plateau or the contrasting low starting salaries which rise rapidly to an eventual plateau which can incentivize career paths in teaching and sustain lifetime positions as seen in the Golden Hello Program. Lastly, Bahrain would like to refrain from incarceration based on teacher misconduct and rather make use of internal, non-penal sanctions in media scrutinization, inter district transfers, and unpaid suspensions and leaves of absences as opposed to costly criminalization.

In light of limited access to educational sources within refugee camps, Bahrain would like to make use of radio based learning in coordination with satellite equipped schools and solar power computer technology in order to make classrooms accessible to all. Bahrain would like to mimic the success in Ethiopia by the Education Development Center's radio instruction program with additional applications of overpopulated classrooms in addition to refugee camps.⁶ Differing from this, Bahrain also sees it necessary to increase the stimulation of children within refugee camps through team based competitions launched by the MIT Enterprise Forum of the Pan-Arab Region in 2014, which promotes sustainable technology education and resulted in 21 winning teams which received \$150,000 in prize money for inventions which included \$30 modular evaporated coolers which prolonged the shelf life of food in refugee camps. In addition, Bahrain would like to prioritize creativity in refugee camps through Idea Box libraries which measure 80x120x160 centimeters and weigh 800 kilograms and can be unpacked in less than 20 minutes. These Idea Boxes allow for a more cost effective access to technologies which include tablets, laptops, and e-readers with internet connection software which can promote individualistic as well as group centered creativity. As a result, Bahrain believes that in stimulating proactive anti corruption policies for governance and teacher salaries, and investing in sustainable technologies, education can be upgraded.

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MANAGEMENT FOR THE PRESERVATION OF WORLD HERITAGE SITES

With a growing 1,052 World Heritage Sites today, the problem is no longer how we recognize them, but rather how we can protect them from ourselves, as landmarks such as the Galapagos Islands and Easter Island disappear.¹ With an inability to manage climate change these lack of actions not only damage the sites themselves, but the ecosystems in which they inhabit in the 19 critically threatened World Heritage Sites, which include the Virunga national park, the Everglades national park, the Great Barrier Reef, Kakadu, and Queensland's wet tropics.² These sites which are increasingly disappearing require 17% protection of terrestrial areas in addition to a 10% protection of the oceans by the year 2020 which applies to both climate change mitigation as well as tourism management.¹ Along with the ecological implications, regional conflict also plays a role in the immediate destruction of World Heritage Sites most prominently by militant groups such as Islamic State in the destruction of 10 monuments in Timbuktu in Mali and Syria and Iraq.² Nevertheless, while regional conflict may present itself as an immediate threat to World Heritage Sites currently, Bahrain argues that it is global warming and the misconduct in tourism sectors which are the cause of deterioration long term, and universally including in Bahrain's own Muharraq Island, Qal'at Bu Mahir Fortress, and Coastal and Offshore Pearling Sites as well as Ancient Qal'at al-Bahrain Harbor City and Capital of Dilmun.³ It is on account of this threat that Bahrain believes in the administration of technologies and their application to effectively reduce deterioration, the mitigation of tourism and climate change impacts, and the prioritization of public and private sector funding and policy development.

On account of both the human and ecological footprint on airborne pollution, Bahrain would like to pay close attention to the atmospheric pollutants which can damage structural stability. In response to UNESCO's 2012 survey which resulted in an analysis of 25 World Heritage Sites deemed unable to detect pollution levels in the surrounding regions, Bahrain would like to assist in the equal access to supervisory devices. As a result Bahrain would like to look towards the use of the Agbota pollutant-measuring device which consists of piezoelectric quartz crystals coated with copper, iron, and nickel which generate electric currents as they expand in pollution absorption. This process will therefore be able to detect oxides of sulphur and nitrogen, ozone and humidity through the change in the crystal's mass which allows for pollution levels to be calculated through the electrical output. In addition, the technology and hardware required to build these pollutant detectors costs less than \$640 which is far cheaper than the US Purafil produced OnGuard 3000 model.⁴ The Agbota device was also tested in several World Heritage Sites including the Abomey Palaces which provoked location movements in Kenya for pollutant contact reduction. In a similar way, Bahrain would also like to make use of the IOT based monitoring system which assess the human, biological impact on World Heritage Sites in coordination with weather based degradation. This system which began construction in China for the monitoring of the Daquan River and Mogao Cave grottos,⁵ manages meteorological shifts through microenvironmental imaging and low power wireless ad-hoc sensors which collect real time data on temperature, humidity, and carbon dioxide (CO₂)

powered for up to a year by two AA batteries. The IOT based monitoring system pays specific attention to CO₂ levels which can skyrocket in enclosures in combination with humidity and body odor through in overseeing CO₂ pressure levels, capping off at 1500 parts per million (ppm) and 62% humidity to prevent salt induced deterioration in paintings and stones. On account of these measurements, Bahrain hopes to continue to support tourism allowances within countries for economic stability, keeping in mind CO₂ levels to alter tourism capacities and mimicking the success in China with the limitation of 25 person tours, 5 minute visitation caps for caves, and the restriction of tourism privileges in unfavorable weather conditions with high humidity.

On account of the need for protection in the economic sense, Bahrain would also like to utilize private and public sector funding in addition to independent conservation agencies for transparent collaborations with governmental regulatory bodies. In the use of independent conservation organizations, conflicts of interest that arise between public and private bodies can be readjusted through third party actors. Public-private partnerships (PPPs) can be effective in the event of predetermined characteristics of business to maximize profit and safety and minimize conflict sprouted from miscommunication. PPPs can make use of urban heritage conservation, land value capture finance, urban development funds, as well as impact investment funds and can find balance between marketing, rehabilitation, land consolidation, tax incentives, direct subsidies, and infrastructural improvements through build-own-operate-transfer (BOOT), build-own-operate (BOO), and build-lease-operate-transfer (BLOT) cooperations. Ultimately, through the proactive use of technologies and PPP funding, Bahrain believes the ecological and tourism impact can be diminished and World Heritage Sites preserved.

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INFRASTRUCTURE FOR THE IMPLEMENTATION OF VISION FOR 2030

Education is not something that has always been prioritized, however, in a world that is increasingly transitioning into knowledge based economies, structure is no longer enough, but rather radical changes in stagnant education systems are necessary. While the Millennium Development Goals (MDGs) strived to provide equal access to primary education, educational assistance peaked in 2010 and has slowly declined since then as illiteracy rates have remained at 774 million while funding for education has increased to \$148 billion per year in low income countries alone, making funding less accessible.¹ This presents a problem for countries such as the Democratic Republic of the Congo in which the funding alone for the Sustainable Development Goals (SDGs) will cost nearly as much as their Gross Domestic Product (GDP).¹ It is on account of this lack of funding, that education is hindered and bracketed under generalizations which are paralleled under the current SDGs which lack detail oriented focus as it increased its influence to a total of 70 countries as opposed to 30.² However, Bahrain does not particularly face this problem with a focus on free and compulsory education from ages 6 to 14, with the exception of tuition based private schooling which begins as early as pre-school as well as fee-paying nurseries.³ Nonetheless, Bahrain sees it crucial to maintain the cultural identities of education systems, promote affordable technological advancements for educational equality, and the need to prioritize Sustainable Development Goal funding for developing nations.

While Bahrain acknowledges that classroom based learning is vital in the promotion of moral seeking education, Bahrain also values the advancements that come with a future in technology funding in coordination with character education for religious preservation. Therefore, Bahrain prioritizes the equal access to internet in developing nations with the involvement of organizations such as the World Bank through Ob3 Networks mimicking the success in the Pacific region as well as the cost effective computer system deemed the Raspberry Pi. Ob3 Networks have previously been implemented in the Cook Islands in March 2014 with the use of satellite based communications in coordination with Project Loon which also made use of balloon-powered internet.⁴ However, Bahrain recognizes the adjustments that must be made due to weather unpredictability and therefore suggests the collaboration with the Singapore oriented Kacific Broadband Satellite and the need for fibre-optic cabling. Bahrain also acknowledges the need for fiscal affordability and the need to make satellite capabilities more cost effective for developing nations for it currently costs around \$13,000 which is far too expensive however can be supplemented in the use of submarine cabling in between countries which can share funding. On the other hand, the Raspberry Pi system deters the use of slow networking internet cafes in countries where people have become dependent on computer based individualistic learning and instead makes use of low energy consumption, TV adaptability, firewall safety, and a 160 person Skype capacity with 20 megabits with the total cost of \$35.⁵ The Raspberry Pi's compatibility in addition to its credit card size is far more sustainable than that of the traditional use of internet cafes which are more susceptible to viruses, botnets, and malware in the destruction of the system. Additionally, the Raspberry Pi system ensures

universal usability for even the technologically illiterate as it make use of lower part components and SD memory cards for portability and a hands free plugin. In the same way, Bahrain would also like to utilize a computer technology that allows for culture preservation in language based learning which does not solely focus on that of the English or European languages, but rather indigenous and culturally prevalent languages. The Heliox, which has been proved successful in countries such as Mexico in preserving and educating in languages such as Mayan, Nahuatl, and Mixe, uses the GNU/Linux operating system with educational support in websites and applications available in native languages through text and voice messages in cursor directory. This system prevents from technology exemption due to cultural barriers on account of the 96% of words used to detail computer systems lacking a proper translation.⁶ The Heliox is also compatible with people with disabilities through screen magnifiers and a mouse controlled by head movements and is adaptable to any computer system through memory stick software.

Differing from technological advancements, Bahrain would also like to pay close attention to SDG indicators as well as proper funding in the reversal of lower middle income country (LMIC) prioritization. With nearly all of the LMICs meeting the criteria for the funding of the SDGs yet still receiving the majority of the money, Bahrain would like to reverse this and instead focus on providing 50% as opposed to 30% of the donor based SDG funding to the lower income countries (LICs).⁷ This is also due to the fact that there is currently enough of the surplus money from the funding of the LMICs to be able to close half of the financing gap between the LMICs and the LICs as estimated costs for educational funding is expected to raise to \$239 billion between 2015 and 2030.⁷ Monetary backing can also be allocated through taxation in the prevention of tax exemption and the assurance of tax collection from large enterprises in tourism, real estate, and fishing sectors which would allow for an extra 3% GDP source funding.⁷ Lastly, Bahrain would also like to pay close attention to the indicators which would monitor SDG performance based on outcome focused, science aligned, proxy oriented, annual cyclicity and production, and single variable indicators. That is to say that with the prioritization of technology and efficient funding distribution, Bahrain believes that universal access to education both individually as well as in a classroom setting can be achievable and affordable.

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