

Urgent Need for CSR in Bangladesh with an Emphasis on Environmental Issues

Rashed Al Karim and Azilah Kasim

Universiti Utara Malaysia, Malaysia, {rashed_al@uum.edu.my, azilah@uum.edu.my}

ABSTRACT

Corporate Social Responsibility (CSR) is becoming a topic of significant concern among the experts from both academia and industry all over the world. However, actual adoption of the concept in today's business world is still sparse especially in the less developing countries including Bangladesh. Most of the businesses in Bangladesh considered philanthropic responsibility as the essential part of CSR. The environmental responsibility is regarded as relatively less important in Bangladesh. Hence, this paper aims to highlight the needs of environmental CSR activities for business organisations in Bangladesh by addressing existing environmental concerns of achieving sustainable development and simultaneously adds knowledge regarding present environmental vulnerability. By reviewing the extensive literature, this study identified several environmental concerns in Bangladesh include air pollution, water pollution, soil degradation and climate change, etc. And all these environmental issues are continuously threatening the human health, ecosystems and economic growth of the country. Therefore, this paper recommends adopting environmental CSR activities by business sectors to reduce their hostile impacts on the environment, as well as, contributes knowledge concerning diverse ecological pollutions in Bangladesh.

Keywords: Corporate social responsibility, environmental pollution, environmental CSR, climate change.

I INTRODUCTION

Corporate Social Responsibility, in short CSR, is rapidly becoming a subject matter of significant concern among the experts from both academia and industry, where CSR is acknowledged as a potentially valuable approach to building an enduring association between internal and external stakeholders of the business entity (Rashid, Rahman, & Khalid, 2014). Previously, organizations' CSR activities are confined within the society, that is, they only concern social benefits. But after perceiving an increased number of environmental catastrophes, contributed by the immoral business interest and human insensitive approach, business organizations are shifting

towards CSR and considering it as a strategic payback tool. Businesses are now actively seeking to incorporate environmental concerns along with social concerns into their operation and activities as a part of firm's CSR program (Banyte et al., 2010). Moreover, owing to the well-established affiliation between business and the environment, the business community as well as civil society is gradually being expected to operate businesses in environmentally accountable ways (Kasim & Dzakiria, 2009). Correspondingly, after publishing the World Commission on Environment and Development (WCED) report, (also known as Brundtland Report), the corporate leaders and management scholars from developed and developing countries start considering all environmental concerns into their strategic decision-making as a positive role of protecting the environment.

On the other hand, the overall situation of environmental degradation is more vulnerable in the lower middle and less developed countries including Bangladesh in comparison with developed and developing country. All over the world the dreadful conditions of the natural environment and its consequences on the society is now apparent. As a highly populated country with inadequate natural resources, the present circumstances of Bangladesh are even more dangerous. Till now the environmental condition of Bangladesh is not at all stable situation. The human health, ecosystems and economic growth are threatened by severe environmental pollution like air, water, soil and noise pollution in Bangladesh (Hoque, Clarke, & Sultana, 2017). And great poverty, overpopulation, limited resources, the dearth of environmental consciousness are some of the causes of the environmental degradation in Bangladesh. Besides, Bangladesh is facing several natural catastrophes such as floods, cyclones, and tidal-bores every year which causes severe socio-economic and ecological damage. Consequently, the country's development is threatened by these pollutions and natural catastrophes. Though the government has been continuously striving for the last two decades to improve the environmental degradation and control pollutions, but still the overall state of the environment is not favourably balanced. All these environmental concerns have appeared like an immense challenge to the

sustainable development of the country. Thus, this study not only aims to emphasize the needs of environmental CSR activities for business organisations in Bangladesh by focusing the present environmental concerns but also provides knowledge regarding diverse environmental pollutions in Bangladesh perspective.

II ENVIRONMENTAL PROFILE OF BANGLADESH

Bangladesh is a low lying deltaic country with an area of 147,470 sq. Km, whose population is about 160 million with a density 1265 per square Km. Bangladesh has around 700 rivers, canals, and streams with a length of 22,155 km approximately, and occupies a riverine area of roughly 9,384 sq. km. Bangladesh is also richly gifted with several seasonal and perennial water bodies locally famous as haors, beels, baors, khals, pukurs, and dighies. Rivers, canals, beels, lakes, and haors are open wetlands, while baors, dighis, ponds, and ditches constitute closed ones. Bangladesh usually observes sub-tropical monsoon climate which is characterized by high temperatures, excessive humidity, and seasonal rainfall. Out of six seasons, winter, and summer are prominent. Summer and winter winds mostly controlled the country's climate while pre-monsoon and post-monsoon wind circulation controlled partially. The average annual temperature is between 5°C to 35°C. March-April is normally the warmest months whereas the coolest months are January-February. Bangladesh is also a country of natural beauty whose parts are covered by small and medium mountains, and some other parts are covered by the rivers. It has the world's longest beach (Cox's Bazar), the world's largest mangrove forest (Sundarban). There are also many archaeological sites which can certainly attract domestic and foreign tourists (BBS, 2007, 2014). Besides, Bangladesh has a reasonably inadequate natural resource with the ratio of its high growing population. Majority people depend on the country's natural resources for their livelihood. Due to overexploit or sub-optimal use, many of the natural resources are now under serious threat. At the same time, owing to several pressures including overpopulation (around 160 million), vast poverty, interventions to development, gap to policy and legislation and conflict to institutional guidelines, 95% of natural forests and 50% of freshwater wetlands of Bangladesh are already lost or degraded. Now Bangladesh has 1.4% protected and intact forest in comparing with its landmass. Over the last 50 years, many native wildlife species have already been lost (Aminuzzaman, 2010). Additionally, severe pollutions (air, water, soil, and noise) and the impacts of long term and short-term

climate changes (floods, droughts, cyclone, etc.) are not only confining the country's economic growth but also destroying social and environmental structures.

Therefore, it is crucial to have guideline or policy to minimise ecological degradations and pollutions for the survival of the dense population of Bangladesh, which preserves and sustains the environments that support their livelihoods. For this drive, technological and economic growth should take place in such a way that the overall supply of resources could maintain in the long run. Therefore, sustainable development and environmental CSR both necessitates the conservation of natural environment and biological diversity with improving the living standards of the people. Next section will focus on the various environmental pollutions observed by Bangladesh.

A. AIR POLLUTION

Out of various human-made environmental catastrophes, air pollution is presently taking place all around the world. Air pollution can be defined as an atmospheric condition with various substances whose level of concentration is more than average ambient levels and produce a measurable effect on human beings, animals or plants (UNEP, 2001). The air pollutants mainly affect human body lung and cause irritation and respiratory problems. At present, air pollution is the main threat to human health in many cities in Bangladesh. According to the World Health Organization's (WHO) latest air pollution report, Bangladesh has ranked 4th out of 91 countries due to worst urban air quality. Also, among 1600 cities of 91 countries, three cities from Bangladesh were present in the list of 25 cities with poorest air quality. By decreasing the level of air pollution around 20%-80% approximately 1200-3500 lives would be possible to save annually in Bangladesh as well as by dropping the level of air pollution to the mentioned level, 80 to 230 million cases of health problem would also decrease. On the word of WHO, every year around 7 million premature death is associated with air pollution (BanDuDeltAS, 2015).

In Bangladesh, industrial emissions and vehicular emissions are the two significant sources of air pollution where industrial emissions are the stationary sources of air pollution while vehicular emissions are the non-stationary or mobile sources of air pollution. Smoke emitting various types of industries and factories such as brick kilns, pulp and paper mills, textile industries, steels re-rolling mills, power plant (natural gas, diesel and furnace oil based), fertilizer (urea, TSP), cement, plastic, chemical industries are the primary stationary

sources of air pollution. Conversely, vehicular transports such as buses, trucks, cars, jeeps, auto-rickshaws, motorcycles are the sources of non-stationary sources of air pollution. Most of these vehicles run on the roads of Bangladesh are old, overloaded and poorly maintained. As per the survey of DoE, in Dhaka, almost 90% of the vehicles are substandard and discharge high level of air pollutants due to the use of impure fuel and lube oil, high-sulphur diesel and lack of proper maintenance and traffic congestion. In addition to these, few human-made activities such as open place burning, solid waste disposal in public area, brick and stone crushing, construction materials storage (sand, rock, cement, etc.) are also non-stationary sources of air pollution in Bangladesh (UNEP, 2001; BanDuDeltAS, 2015). Besides, the findings of UNEP (2001) reveals that the leading reasons for continuous deterioration the quality of air in Bangladesh are unplanned urbanization, emissions from vehicles, un-planned industrial development, brick-making kilns, and waste dumping in public places, etc. However, Ministry of Environment and Forest (MoEF) and the Department of Environment (DoE) are trying together to restrict and mitigate ever-growing environmental problems in the country through diverse rules and regulations e.g. the Environment Policy Act-1992, the Environmental Conservation Act-1995, the Environment Conservation Rules-1997 etc.

B. WATER POLLUTION

Bangladesh is a riverine country with a network of huge no of rivers, canals, and water bodies, which are occupying about 11 per cent of the total area of the country (Zakaria, Rashid, & Khaled, 2017). Among the diverse natural resources, water is the essential one for the survival of all living organisms. Its availability (seasonal and regional) and quality (of both ground and surface) influence country's economic, social and environmental growth (UNEP, 2001). Unfortunately, unplanned urbanisation and industrialisation are continually worsening the quality of water, especially in urban areas of Bangladesh. The pollution caused by municipal and industrial waste effluents and agrochemicals in several rivers and water bodies have already touched alarming levels. Several organic and inorganic toxic substances are the responsible for the water contamination whose long-term effects on the public health and the environment are countless. Because contaminated water affects marine and aquatic ecosystems and the contaminants that enter to the foodstuffs, caused public health hazards. Similarly, water pollution adds severe environmental threats in Bangladesh. Haphazard and unprocessed waste dumping by

municipality and hospitals and contaminated environmental discharge by industries are the key reasons of water pollution. More than 50% of the total generated solid waste (around 4000 to 4500 tons) used to dump into the rivers. Also, roughly 500 hospitals and clinics release their unprocessed medicinal and toxic waste into the rivers (Khan, 2016). In addition to these, as most of the industrial zones situated in Dhaka, Chittagong and Khulna districts, so the quality of water of those areas is getting worse increasingly owing to the discharge of industrial effluents of dying industries, tanneries, food industries, pulp and paper industries, fertilisers etc. And due to the release of untreated industrial effluents, more than 200 rivers of Bangladesh have polluted severely. Among the all polluted rivers, the River *Buriganga* is in the worst condition only because of the tannery effluents situated at Hazaribagh areas in Dhaka. On top of this, there are nearly 700 tanneries in Dhaka who are consistently discharging polluted wastes into the water bodies. And according to the statistics of the Department of Environment (DoE), there are 1,176 industries, are continuously polluting the water in the country through their toxic waste (Khan, 2016).

Moreover, Bangladesh has small land area compared with its vast population, and all the inhabitants are not getting adequate supply water due to lack of technical competence. As a result, nearly 87% people depend on the groundwater to meet their daily needs (BBS, 2010). That's why overuse and contamination of groundwater have become another severe concern for Bangladesh. Besides, a massive amount of groundwater is also consuming for the irrigation purpose (Qureshi et al., 2015). Also, arsenic contamination is one more severe concerns facing by Bangladesh in rural areas as because of the disturbance of current agricultural practices, groundwater extraction and different anthropogenic activities (Khan, 2016, Karim et al. 2008).

C. SOIL POLLUTION

Among several environmental pollutions, soil pollution is another serious threat to human life and the environment of Bangladesh. Soil pollution describes typically as the accumulations of different toxic substances, radioactive components, and chemicals in the soil which cause diseases and create adverse impacts on animal health and the growth of plants. And these pollutants deteriorate the quality and the content of mineral of the soil and disrupt the biological balance of organisms in the soil (UNEP, 2001). Because of prompt industrialisations and urbanisations, total arable lands in Bangladesh are regularly degrading or contaminating through heavy metals and persistent

organic compounds which led substantial deterioration of the soil quality over the last two decades. Human-made activities such as mining, use of pesticides, increased intensity of chemical usages, filtration of contaminated surface water to subsurface strata, burning fossil fuels, discharge of industrial and household wastes directly into the soil are some of the common reasons of soil pollution in Bangladesh (UNEP, 2001; Alam, 2009; BanDuDeltAS, 2015). Petroleum hydrocarbons, insecticides, solvents, and other heavy metals (such as lead, cadmium, arsenic and mercury etc.) are the common chemical and heavy metal pollutants of soil (SCU, 2013).

Besides, the port cities of Bangladesh, such as Chittagong and Khulna, and their adjacent coast are polluting due to ocean-going ships, which is becoming a significant concern for port areas. Specifically, two main rivers of this country, named, Karnafuli river and Passur river are polluting by spillage of oil and chemical effluents from ships. According to the report of MoEF (2001), in consequence of ship breaking industries and port activities, the amount heavy metal concentrations are gradually increasing and threatening the ecosystem of those areas. Another study conducted by Siddique, Parween, Quddur, & Barua, (2009) on the concentration of heavy metal in seabed sediments in ship breaking region also found the similar result. The detected level of heavy metal concentrations in seabed and sediments around the ship breaking industries is much higher than the standard (safe) level (Siddique, Parween, Quddur, & Barua, 2009). In rural areas, extensive use of fertiliser and insecticides for cultivation pollute the soil of the agricultural land. Additionally, soils nearby the solid waste disposal sites are contaminated as of the leaching from the waste (SCU, 2013). In the long run, fast population growth, high poverty, inappropriate use of land, deficiency of land usage policy, and ineffectual execution of general rules and guiding principle are many of the reasons that compelling the people of Bangladesh to not only over-exploit natural resources like land but also polluting them. At the same time, the pollutants of soil/land cause various health problems such as cancers (arsenic, asbestos, dioxins), kidney disease (lead, mercury, cadmium), neurological damage and lower IQ (lead, arsenic), and skeletal and bone diseases (lead, fluoride, cadmium) (SCU, 2013). Thus, soil pollution has presently become a national concern for its undesirable impacts on living organisms and environmental quality.

D. CLIMATE CHANGE

Among various environmental concerns, climate change is considering as one of the most challenging problems that are facing the world in the 21st century due to increase of temperature, change of physical and biological systems, extinction of species, and negative impacts on the society as well as on the earth (O'Brien & Leichenko, 2000; Kolk & Pinkse, 2004, 2012; Khojastehpour & Johns, 2014). Climate change is receiving an increasing emphasis among different clusters of stakeholders in the developed and developing countries of the world. As an international environmental issue, climate change is also attracting the business firms as because of its probable strategic impact on the business activities (Kolk & Pinkse, 2004). As all businesses are surrounded by a broader business environment and that environment can affect directly to the firm's performance and expectations. Thus, business firms are likely to be accountable to the society and the environment where they operate, that is, addressing the diverse environmental challenges including air, soil and water pollution, greenhouse gas emission, energy conservation issue, etc. Additionally, businesses should agree on the importance of the reduction of various types of pollution, discharge, and waste, along with the efficient use of natural resources (Khojastehpour & Johns, 2014).

Conversely, the awareness of the environmental challenges together with climate change is decidedly scarcer in the less developed country including Bangladesh. Regarding natural and anthropogenic hazards, Bangladesh is one of the susceptible countries in the world. According to The World Risk Report 2015, among the 173 countries around the globe, Bangladesh is the 6th most natural disaster-prone country. As per the 2011 Global Assessment Report of the UNISDR, regarding the number of people exposed to flood, cyclone and other natural calamities, Bangladesh is ranked 1st out of 162 countries. Simultaneously, due to the hostile impacts of climate change, Bangladesh is already listed as one of the riskiest countries in the world. Geographical location, climate change, biodiversity, and unsustainable development process are responsible for making the country susceptible to diverse meteorological, hydrological, and geological dangers. Mainly, climate change is exacerbating numerous natural disasters such as floods, cyclones, droughts, tidal surges, tornados, river erosion, infrastructure collapse, water logging, water and soil salinity, epidemic, and several forms of pollution, etc. These climate-induced catastrophes are also contributing adverse effects on the country's economic and social growths. For example, according to the

report of World Bank (2010), the financial loss from the impact of cyclone called Sidr is assessed to be 2.6% of total GDP in 2007 and left long-lasting problems for the country (World Bank, 2010; cited from Khan, 2016). And in future, the impacts of climate change will be more serious owing to increase of temperature, variations of rainfall pattern, erosion of land, droughts and many more frequent climate-oriented calamities and might have substantial impacts on human health, agrarian growth, and socio-economic settings.

III CSR IN BANGLADESH

Globally CSR is now a recognised issue, nonetheless, it is an emerging concept in Bangladesh and defined as a set of ethical business practices towards sustainable development and mostly depends on stakeholder's interest or willingness (Werner, 2009). In other words, in Bangladesh CSR means organisation's philanthropic activities such as the donation to build schools, madrasahs, colleges, to city beautification, to offer scholarships for needy students, sometimes to donate money to government's emergency funds etc. However, regarding the social and environmental contributions, the responsible business practices or CSR practices are still voluntary for companies form most of the sectors of Bangladesh except banking sector. In 2008, the central bank of Bangladesh (Bangladesh Bank) had issued a circular regarding CSR practice in the banking sector for both public and private banks. For other industries, there are no specific regulations or guidelines apart from few rules relating to negative impacts on the environment for chemical and textile industries to establish ETP (effluent treatment plant) and STP (sewage treatment plant) for their operations. But till now there is no execution of those regulations due to various legislative obstacles, the lack of monitoring from government and other regulatory officials. That's why insofar CSR is concerned, majority organisations from Bangladesh are either unwilling or reluctant to engage themselves in CSR practices (Hossain & Rowe, 2011; Moyeen & West, 2014). Concurrently, as the involvement of CSR is a fact of self-interest or personal willingness that's why the level of engagement towards CSR activities is not satisfactory (Azim, Ahmed & Islam, 2009). Several previous investigations such as Belal and Owen (2007), Sobhani, Amran, and Zainuddin (2009), Khan, Muttakin, and Siddiqui (2013), and Das, Dixon and Michael (2015) also found the same status quo regarding CSR practices. In addition to these, Hossain, Islam and Andrew (2006) found in their study that majority Bangladeshi organisations used to publish in their annual report a few CSR

disclosers under human resource which is mostly qualitative and positively biased.

Against these backdrops, over the last few years the essentials of CSR have been gaining gradually in Bangladesh, and presently CSR is being considered as an integrated part of their daily operations of doing business globally and to sustain in this competitive business realm. Because of government initiatives, pressure from international buyers as well as various national and international social and environmental organisations, the involvement of CSR practicing by local and multinational companies is progressively increasing. Now CSR is not only confines in doing philanthropic or charity activities in Bangladesh. It also targets to eradicate poverty, to reduce deprivation of women from the society, to establish labour rights, to protect the environment and above all to achieve sustainable development.

IV NEEDS FOR ENVIRONMENTAL CSR

Thompson (2002) defines environmental CSR as environmentally responsible behaviour such as donating money for going green activities, financing on environmental technology, reducing environmentally harmful industrial emissions, preventing other environmental pollutions (such as air, water and soil pollution) etc. In developing and the least developing countries, the awareness of environmental activities under CSR has still not grown. For example, in Bangladesh as far as CSR is concerned, most of the companies have insufficient knowledge about environmental CSR initiatives. Majority of them take part in philanthropic contributions and doing charitable activities for social welfare accomplishments. Donation to education sector, health campaign for rural people, urban development, support for the orphans and disabled people, and aid during natural calamities are some of the typical examples of such activities (Jamali & Mirshak, 2007; Visser, 2008; Moyeen & West, 2014). Unfortunately, there is little attention to incorporate environmental activities as an essential component of broad social responsibilities. Most of the business sectors of Bangladesh such as manufacturing, ready-made garments, pharmaceuticals, telecom and multinationals are not the exception of such a lack of awareness and attention towards environmental CSR initiatives. The findings from the prior research are also supporting the assertion mentioned above. For instance, Baughn et al. (2007) conducted a comparative study in 15 Asian countries including Bangladesh regarding social and environmental CSR practices. They found that in both types of CSR practices, the level of Bangladeshi companies' participation is very unsatisfactory and lower than the average in relating to other countries from

Europe, American and Africa. Another study by Naeem and Welford (2009) found that the priority of environmental issues was not addressed appropriately in most of the large businesses including multinational companies in Bangladesh after having written policies in all four areas (human rights, labour standards anti-corruption and the environment as per Global Compact Principles). Moreover, all those policies are hardly ever converted into practice (Naeem & Welford, 2009). One more recent study by Moyeen and West (2014) revealed that the environmental responsibility was observed as the least essential aspect among various aspects considered under CSR from 26 managers interview perception out of 32 managers. In the same way, many other studies (e.g. Belal & Owen, 2007; Islam & Deegan, 2008; Sobhani et al., 2009; Azim et al., 2009; Khan et al., 2011; Momin & Parker, 2013) also found the lower level of engagement of Bangladeshi listed companies into environmental CSR practices. Thus, businesses in Bangladesh considered philanthropic responsibility as the essential part of CSR whereas the environmental responsibility regarded as relatively less important in Bangladesh.

Like many other developing countries, one of the ultimate challenges of Bangladesh is to achieve ecologically sound development. The country's overall economic activities are still depending on nature-based resources. Besides, rapid industrial expansion is another principal motive for this enhanced economic growth. Conversely, this economic development through industrialisation has created several negative impacts on the environment including several pollutions like air, water, soil, and natural disasters like flood, cyclone, tornado, etc. On top of these, service sectors like real estate, transportation, tourism and hospitality, and municipal activities also create impacts on the environment. As a result, the overall environmental quality will degrade and affect the sustainable development of Bangladesh. It will, to add more, generate pressure on the country's fragile natural resources that will eventually thwart the economic progress of Bangladesh. Therefore, active participation of the business community through environmental CSR by addressing the detrimental environmental activities can contribute to improving the socio-environmental conditions of the country and will also enrich the reputation of businesses as an essential representative of social and environmental well-being in the communities where they operate.

V CONCLUSION

This study has tried primarily to highlight the on-going environmental degradations in Bangladesh, and then to put stress on the essentials of

environmental CSR to minimise the continuing environmental damages and contributes environmental knowledge to uphold sustainable development. From the review of the literature it is evident that CSR in Bangladesh is still philanthropy-driven CSR and playing roles in several economic and social issues, for instance, poverty alleviation, donation to education, arranging health campaign to the poor people, helping people during natural disasters etc. On the other hand, rapid urbanization along with advanced economic activities is leaving harmful impact on the environment by means of air and water pollutions, soil degradation, deforestation and other environmental pollutions. In addition to these, acid rain, depletion of ozone layer and global warming are the other forms of detrimental consequences on the environment caused by the intensive activities of human beings. Several prior studies, discussed in literature review, also established that environmental CSR activities are the least important aspect to the Bangladeshi companies among various aspects they consider under CSR. Against these backdrops, it is not possible to address all the current environmental challenges adequately through the philanthropy-driven CSR alone. Government and other organisations should be more accountable to foster the environmental CSR activities and to raise environmental concerns within the business organisations for sustainable development.

REFERENCES

- Alam, G. J. (2009). Environmental pollution of Bangladesh—its effect and control. *Pulp and Paper*, 51, 13-7.
- Aminuzzaman, S. M. (2010). Environment policy of Bangladesh: A case study of an ambitious policy with implementation snag. In *South Asia Climate Change Forum*, organized by Monash Sustainability Institute, Monash University, Australia, 59, 1-18.
- Azim, M. I., Ahmed, S. & Islam, S. (2009), "Corporate social reporting practice: evidence from listed companies in Bangladesh", *Journal of Asia-Pacific Business*, 10(2), 130-145.
- BanDuDeltAS, (August, 2015). Environmental Pollution: a baseline study under Bangladesh Delta Plan 2100 Formulation Project. Bangladesh Dutch Delta Advisory Services.
- Banyte, J., Brazioniene, L., & Gadeikiene, A. (2010). Expression of green marketing developing the conception of corporate social responsibility. *Inzinerine Ekonomika-Engineering Economics*, 21(5), 550-560.
- Baughn, C.C., Bodie, N.L. & McIntosh, J.C. (2007), "Corporate social and environmental responsibility in Asian countries and other geographical regions", *Corporate Social Responsibility and Environmental Management*, 14(4), 189-205.
- BBS (2007). *Compendium of Environmental Statistics of Bangladesh*, Dhaka, Bangladesh Bureau of Statistics.
- BBS (2010). *Compendium of Environment Statistics of Bangladesh 2009*. Dhaka, Bangladesh: Bangladesh Bureau of Statistics, Ministry of Planning.
- BBS (2014). *Compendium of Environmental Statistics of Bangladesh*, Dhaka, Bangladesh Bureau of Statistics.

- Belal, A. R. & Owen, L. D. (2007). The views of corporate managers on the current state of, and future prospects for, social reporting in Bangladesh – an engagement-based study. *Accounting, Auditing & Accountability Journal*, 20(3), 472-494.
- Das, S., Dixon, R., & Michael, A. (2015). Corporate social responsibility reporting: a longitudinal study of listed banking companies in Bangladesh. *World Review of Business Research*, 5(1), 130 – 154.
- Hoque, A., Clarke, A., & Sultana, T. (2017). Environmental sustainability practices in South Asian university campuses: an exploratory study on Bangladeshi universities. *Environment, Development and Sustainability*, 19(6), 2163-2180.
- Hossain, M. M., & Rowe, A. (2011). Enablers for corporate social and environmental responsibility (CSER) practices: Evidence from Bangladesh. 10th CSEAR Australasian Conference (Conference on Social and Environmental Accounting Research), 5–7 December, 2011 University of Tasmania, Launceston.
- Hossain, M., Islam, K., & Andrew, J. (2006). Corporate social and environmental disclosure in developing countries: Evidence from Bangladesh. In *Proceedings of the Asian Pacific Conference on International Accounting Issues*, Hawaii.
- Islam, A. M. & Deegan, C. (2008). Motivations for an organisation within a developing country to report social responsibility information: evidence from Bangladesh. *Accounting, Auditing & Accountability Journal*, 21(6), 850-874.
- Jamali, D. & Mirshak, R. (2007). Corporate social responsibility (CSR): theory and practice in a developing country context. *Journal of Business Ethics*, 72(3), 243-262.
- Karim, R. A., Hossain, S. M., Miah, M. M. H., Nehar, K., & Mubin, M. S. H. (2008). Arsenic and heavy metal concentrations in surface soils and vegetables of Feni district in Bangladesh. *Environmental monitoring and assessment*, 145(1-3), 417-425.
- Kasim, A., & Dzakiria, H. (2009). Encouraging environmental management among small and medium accommodations (SMAs) through e-learning initiative. *Turkish Online Journal of Distance Education*, 10(2), 162-174.
- Khan, A., Muttakin, M. B., & Siddiqui, J. (2013). Corporate governance and corporate social responsibility disclosures: Evidence from an emerging economy. *Journal of business ethics*, 114(2), 207-223.
- Khan, M. H., Islam, M. A., Fatima, J. K. & Ahmed, K. (2011). Corporate sustainability reporting of major commercial banks in line with GRI: Bangladesh evidence. *Social Responsibility Journal*, 7(3), 347-362.
- Khan, S. M. M. H. (2016). *Environmental Education and Awareness. Bangladesh National Conservation Strategy*, Ministry of Environment and Forest, Bangladesh.
- Khojastehpour, M., & Johns, R. (2014). The effect of environmental CSR issues on corporate/brand reputation and corporate profitability. *European Business Review*, 26(4), 330-339.
- Kolk, A. & Pinkse, J. (2004). Market strategies for climate change. *European Management Journal*, 22(3), 304-314.
- Kolk, A. & Pinkse, J. (2012). Multinational enterprises and climate change strategies. In *Handbook of Research on International Strategic Management*, Edward Elgar.
- MoEF. (2001). *State of Environment Bangladesh*. Ministry of Environment and Forest. Retrieved September 14, 2017, from http://www.moef.gov.bd/html/state_of_env/state_of_env.html.
- Momin, M. A. & Parker, L. D. (2013). Motivations for corporate social responsibility reporting by MNC subsidiaries in an emerging country: the case of Bangladesh. *The British Accounting Review*, 45(3), 215-228.
- Moyeen, A., & West, B. (2014). Promoting CSR to foster sustainable development: Attitudes and perceptions of managers in a developing country. *Asia-Pacific Journal of Business Administration*, 6(2), 97-115.
- Naem, A. M. & Welford, R. (2009). A comparative study of corporate social responsibility in Bangladesh and Pakistan. *Corporate Social Responsibility and Environmental Management*, 16(2), 108-122.
- O'Brien, K. L. & Leichenko, R. M. (2000). Double exposure: assessing the impacts of climate change within the context of economic globalization. *Global Environmental Change*, 10, 221-232.
- Quazi, A.M. & O'Brien, D. (2000). An empirical test of a cross-national model of corporate social responsibility. *Journal of Business Ethics*, 25(1), 33-51.
- Qureshi, K., Ahmad, M.Z., Bhatti, I.A., Iqbal, M., & Khan, A. (2015). Treatment of wastewater treated by photocatalytic derived oxidation process. *Chemistry International*, 1(1), 53-59.
- Rashid, N. R. N. A., Rahman, N. I. A., & Khalid, S. A. (2014). Environmental corporate social responsibility (ECSR) as a strategic marketing initiatives. *Procedia-Social and Behavioral Sciences*, 130, 499-508.
- Science Communication Unit (SCU), University of the West of England, Bristol (2013). *Science for Environment Policy In-depth Report: Soil Contamination: Impacts on Human Health*. Report produced for the European Commission DG Environment, September 2013. Available at: <http://ec.europa.eu/science-environment-policy>
- Siddique, N. A., Parween, S., Quddur, M. M. A., & Barua, P. (2009). Heavy Metal Pollution in Sediments at Ship Breaking area of Bangladesh. *Asian Journal of Water, Environment and Pollution*, 6(3), 7–12.
- Sobhani, F.A., Amran, A. & Zainuddin, Y. (2009). Revisiting the practices of corporate social and environmental disclosure in Bangladesh. *Corporate Social Responsibility and Environmental Management*, 16(3), 167-183.
- Thompson, P. (2002). *Corporate environmental reporting in Singapore and Malaysia: Progress and Prospects*. Centre for Europe-Asia Business Research, Nottingham University Business School, University of Nottingham, Malaysia Campus.
- UNEP (2001). *Bangladesh: State of the Environment-2001*. United Nations Environment Programme.
- Visser, W. (2008). Corporate social responsibility in developing countries. In Crane, A., McWilliams, A., Matten, D., Moon, J. and Siegel, D. (Eds), *The Oxford Handbook of Corporate Social Responsibility*, Oxford University Press, Oxford, pp. 473-499.
- Werner, W. J. (2009). Corporate social responsibility initiatives addressing social exclusion in Bangladesh. *Journal of health, population, and nutrition*, 27(4), 545.
- World Bank (2010), "Bangladesh country overview 2010", available at: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/BANGLADESHEXTN>
- Zakaria, N. G., Rashid, K., & Khaled, M. I. (2017). Environmental Pollution in Bangladesh by Inland Tanker Operation. *Procedia engineering*, 194, 330-336.