



Green banking: the case of commercial banking sector in Oman

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Abstract

This paper aims at examining the current environmental status of commercial banks in Oman. In particular, the research attempts to identify initiatives that Omani banks undertake to reduce their carbon footprints and the drivers that influence these banks to act environmentally. To achieve these objectives, we have interviewed 22 randomly selected individuals with varied positions from managing director to branch manager using a semi-structured questionnaire. The interview reveals some important findings: (1) Banks' environmental initiatives that reflect on their day-to-day activities are confined merely to recycling and reduced consumption of paper and energy, (2) although most banks think that eco-projects can be effectively implemented through the banking system, this opportunity remains largely untapped so far (3) most banks recognize the need for separate guidelines issued by the central banks for environmental initiatives and disclosure. The result of this research will help policymakers formulate appropriate environment regulatory policies required for mitigating carbon footprint in Oman.

Keywords Green banking · Carbon footprint · Financial sector · Oman

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1 Introduction

The famous assertion of Larry Lohmann, ‘Keep oil in the soil and coal in the hole’ (Lohmann 2011:650), underpins the urgency of actions needed to address the severity of climate crisis the planet is facing. Although this assertion may seem to be unrealistic given the socio-eco-political reality, the infallible truth reflected in this quote can simply not be denied. Climate change has already inscribed scary marks on the planet manifested by frequent floods, droughts, tsunamis, water scarcity, rising sea level and so forth. The concern has further been intensified by the growing evidences of adverse impacts of climate change which is now threatening to stretch to the next generations (IPCC 2014). This has urged regulators and policymakers to find pragmatic and immediate solutions. Sir Nicholas Stern estimated that greenhouse gas (GHG) emissions could be reduced to a stable level by spending merely 1% of the global gross domestic product (GDP) if actions were taken immediately; however, maintaining the same level would require about 5–20% of the global GDP if adoption of mitigating strategies is delayed (Stern 2007). This entails that solutions to climate change should be sought immediately which require concerted efforts from every domain of the economy.

Financial institutions are in a tactical position to play a pioneering role in creating and maintaining the much-coveted green revolution for this ailing planet. Financial institutions can implement ‘go-green’ policy internally and encourage clients by providing various incentives and sanction mechanisms to adopt green technologies. For example, banks provide financial services to various enterprises such as cement, chemical, garments, and paper industries that emit harmful levels of carbon to the atmosphere. By imposing higher cost to projects that render a threat to the environment, banks can attempt to limit the carbon profile of these industries. On the other hand, banks can introduce various initiatives toward clean environment such as concessional loan for eco-friendly projects like building eco-houses and solar energy-related projects. These initiatives might increase operational cost marginally at the outset. However, clean technology can create a market niche which will serve the banks profitably by expanding their operations into unexplored markets. In addition, banks, for their own interest, should take extensive measures to know the degree of exposure of a project that may contribute to climate change. Nieto (2017) estimates that the banking systems of US, EU, China, Japan, and Switzerland have already disbursed an astounding amount, US\$1.6 trillion, of loan to environmental risk-sector including oil and gas, power generation, and automobiles. Policymakers and regulators are now showing greater interest in research and innovation to tap into the ways that banking institutes can design greener services for this particular market. However, the contemporary discussion focuses mostly on developed countries, whereas the vulnerability of developing countries cannot be ignored anymore (Kolk and Pinkse 2005; Ihlen 2009).

Oman, a developing country, presumably maintains a clean image politically and environmentally given the volatile situation its geographical neighbors mostly face. According to Environmental Performance Index 2018, Oman ranked 116th with an overall score of 51.32 (Switzerland scored the highest point, 87.42). Although environmental problem in Oman is not alarming, the findings of Rahman and Miah (2016) shed some important lights on the climate change status of the country. Their study investigated various aspects of environmental issues reflected on the submitted Intended Nationally Determined Contributions (INDCs) to the United Nations Framework Convention on Climate Change (UNFCCC). Oman was the first among the Gulf Cooperation Council (GCC) countries to submit the INDC-2015 report. However, Oman was shy in disclosing its status of climate

change. Oman's INDC report mostly focused on challenges related to adaptation which overshadowed its mitigation strategies. As such, the country has not clearly outlined its future approach and capacity for carbon reduction. Rahman and Miah (2016) have attributed the reason for such shortcoming to the lack of available information concerning the status of environmental awareness and performance at industry- and firm-level. The current research is an attempt to present new data and information for policymakers and regulators.

The economy of Oman, like its other GCC counterparts, is in critical juncture, especially after the sudden tumble of oil price in 2014. Needless to say, the country depends decisively on oil revenues. Hydrocarbons contributed over 75% to the government revenues and 35.5% to the nominal GDP in 2018. Declining oil price has already resulted in a huge budget deficit (i.e., 24% of fiscal revenue in 2018) which forces the country to look for alternatives to diversify its revenue sources. Few sectors including tourism and recreation have been identified as the key drivers to offset the budget deficit. This may create a trouble in terms of environmental degradation if precautions are not properly arranged. More importantly, the emphasis of Oman on adaptation policies over mitigation strategies entails that the economy is not ready to avail the opportunities created by the changing climate. Investment opportunities, particularly in renewable and sustainable energy sectors and the development of clean technologies, are going to set their mark remarkably in the years to come. These are the opportunities which banks can capitalize on if proper policies and strategies are put in place in time. It is thus, imperative to pinpoint the current as well as future visions of financial institutions with regard to climate change. Our study aims to achieve these objectives. In particular, it attempts to identify strategies banks have adopted to mitigate their carbon footprint and the factors that motivate them to do so. Also, it aims to assess whether banks are ready to embrace the opportunities heralded by the climate change.

The novelty of this research is threefold. To the best of our understanding, this is the first attempt to investigate banks' carbon reduction strategy in Oman using direct interview method. Interview method is expected to provide deeper insight into banks' current status of green compliance and their readiness to tap the future benefits offered by climate change. Second, the results of this research are likely to guide policymakers to identify factors that are to be prioritized for providing sufficient incentives and motivations for financial institutions so that they act environmentally. Third, the research is expected to contribute to the field not only by providing new evidence on the concerned issue but also by advancing the debate as to what could be the suitable form of 'carrot and stick' policy for a cleaner and safer Oman. Due to the increased concern over climate change and the relative scarcity of research in this field in the context of developing countries in general and Oman in particular, the research is expected to have some visible impact on mitigating carbon footprint from the planet.

2 Literature review

There are numerous studies about firms' commitments to compliance with the environmental codes. However, most of these studies consider environmental performance and disclosure as the elements of corporate social responsibility (CSR). El-Bannany (2007) summarized studies which examined the CSR activities of corporations in the 1980s and 1990s. Of the ten studies examined, seven studies found that firms put the least priority to environment among all the elements of CSR, whereas the remaining three studies found that

environment was the second least prioritized element of CSR. Hamid (2004) surveyed the social responsibility disclosure in annual reports of Malaysian banking and finance companies and found that environmental and energy-related information were the least prioritized. Similarly, the level of environmental awareness among the banks in the UAE during 2003–2013 illustrated that the level of disclosure regarding natural environment was very low (Nobanee and Ellili 2016). However, the scenario of disclosure in developed countries is little better than that in developing economies. Menassa and Brodhäcker (2017) studied 169 German banks and showed that 45% of sample banks were concerned about climate change. Australian banks were also found to be very specific even in reporting the amount of GHG emissions resulting from their funded operations (Jain et al. 2015). In the context of the US banks, Jizi et al. (2014) contended that 12% of their sample banks disclosed information related to environmental projects and initiatives.

Gradually, countries have realized that voluntary environmental disclosure in the guise of CSR activities would prove to be ineffective in discharging bank's due responsibility toward society. Thus, regulatory authorities have tended to formulate guidelines for bringing environmental behavior of banks into a certain standard. In response, banks have started complying with the regulatory requirements (Larrinaga et al. 2002; Meng et al. 2019). In the context of Chinese firms, Meng et al. (2019) show that corporate environmental information disclosure has been increasingly significant because of the development of regulatory requirements. Specially, China has initiated Green Credit Policy which, though not fully exploited, plays a pivotal role in triggering Chinese banks to become environmentally aware and active in environmental risk management (Zhang et al. 2011). Thompson and Cowton (2004) have found that most of the UK banks incorporate environmental considerations in their formal corporate lending policies in order to avoid or mitigate environmental liabilities, manage environmental risk, and comply with legislation. Environmental guideline issued by the central bank of Bangladesh is also associated with the increased environmental disclosure (Bose et al. 2018). Similarly, Douglas et al. (2004) attributed insufficient disclosure of environmental information by Irish banks to the lack of adequate environmental regulation.

Apart from regulatory requirements, firm's legitimacy theory is one of the dominating hypotheses that convincingly explain banks' environmental behavior. Legitimacy theory is based on the perception that there exists a social contract between business and society. In this contract, the former enjoys various bounties provided by the latter, and hence, the former is ethically and morally responsible to return a part to the society. The very existence of businesses requires that they follow the values and norms prescribed by the society (Farache and Perks 2010). Thus, firms with greater visibility are expected to have higher responsibility toward society. At the same time, firms should be accountable for disclosing carbon footprint to earn their legitimacy (Patten 1991). Branco and Rodrigues (2008) reported that Portuguese banks, which were listed on stock exchanges and signatories of global reporting initiatives (GRI), were more environmental than other banks. This finding supports the hypothesis that environmental information disclosure is used as a distinguishing feature by banks with higher visibility. Hamid (2004) has provided evidence from Malaysian banking and finance companies that listing in the stock exchanges, size, and age are positively associated with social and environmental disclosure.

There are other critical drivers that motivate banks to be environment friendly. For instance, banks' governance is found to be positively related to corporate environmental awareness. Though corporate governance is mostly related to the management and the structure of an entity, it is intensely related to CSR and ethical business practices. Amore et al. (2015) have shown that poor corporate governance reduces firms' environmental

innovations. Alternatively, poorly governed firms face more difficulties in raising investment needed to finance potentially expensive projects such as green technologies. Jizi et al. (2014) for US banks, Kiliç et al. (2015) for Turkish banks, and Bose et al. (2018) for Bangladeshi banks find a significant positive association between board characteristics (i.e., board size, board composition, and board independence) and environmental performance.

Risk-avoidance concern also urges banks to be green. Weber (2012) has showed that Canadian banks incorporate environmental risks factors into their credit management policies. Similarly, cost reduction strategy is also an important determinant that motivates banks to adopt environmental policies. Yadav and Pathak (2013) have found that Indian banks' motivation to behave environmentally is basically driven by their search for ways to reduce the cost and increase efficiency. Financial performance is also found to be positively related to Islamic banks of GCC countries (Platonova et al. 2018) which support the 'resource-based theory,' i.e., a firm with large resources tends to be pro-environmental as it has sufficient resources to spare for CSR activities. Mathuva and Kiweu (2016), however, reported a contrasting finding in the context of Kenyan savings and cooperative banks which they attributed to the fact that Kenyan banks perhaps, tend to be profit-oriented.

Although studies on this particular issue are comparatively large in the context of developed countries, environmental issue from the perspective of banking sector in developing countries has not been adequately explored although these economies should receive extensive attention from academia and policymakers due to some logical reasons. For instance, the burden of responsibility for the current carbon load lies decisively on the developed countries, while the cost-efficient opportunity for abatement and adaptation lies largely on the developing countries (Clark 2015). Moreover, developing economies are highly vulnerable to the adverse consequences of climate change. Kreft et al. (2017) estimated the global climate risk index for countries which showed that nine out of the ten most affected were developing countries. In this sense, information regarding environmental awareness of banks in developing economies like Oman would contribute to the existing literature and help regulators formulate appropriate policies to mitigate GHG emission.

3 Some stylized facts about GHG emission and regulatory measures in Oman

GCC countries face serious environmental difficulty owing to their hefty reliance on fossil fuels, the primary source of CO₂ emission. Moreover, the shortage of arable land and water resources prevents development of the forests and green areas. Such shortage eventually leads to the accumulation of CO₂ in the atmosphere which results in desertification, water scarcity, loss of biodiversity, air pollution, and degradation of marine and coastal habitats. However, GCC countries vary with regard to their emission profile although they are almost equally exposed to the threats of adverse consequences of climate change. Figure 1 portrays the emission profile of GCC countries. Saudi Arabia (KSA) is the largest polluter, emitting a total of 514,967 kt of CO₂ equivalent, followed by the UAE. Oman is the second least polluter in the region, emitting a total of 62,202 kt of CO₂ equivalent. Also, Oman is the second least among the GCC countries in placing the stress in the planet, i.e., ecological footprint, the quantity of nature it takes to support people or economy. However, Oman's total ecological footprint (6.76 global hectares per person) is almost 2.5 times higher than the world average (2.75 global hectares per person).

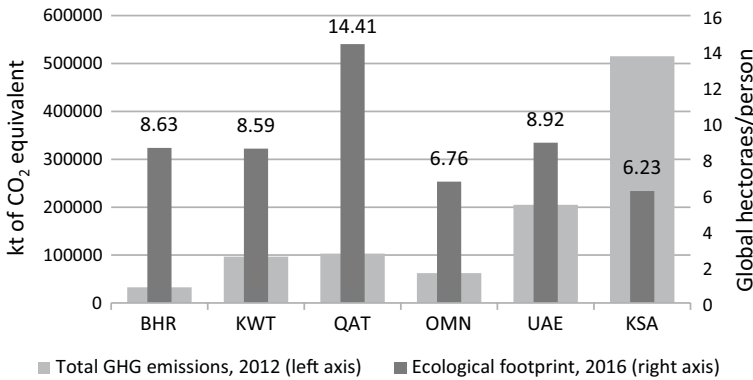


Fig. 1 Total GHG emissions and ecological footprint of GCC countries. *Source:* World Bank (GHG emission), and Global Footprint Network (Ecological footprint)

Figure 2 illustrates the changes in GHG emission by GCC countries from the base year, 1990. It shows that since the end of 2000s, GHG emission of the regions has been rising steadily. From 1990 to 2000, the change in GHG emission for Oman was not significant. However, emission has been rising swiftly since the beginning of 2000s due to the increased economic activities of the country, particularly the rise of hydrocarbon related activities.

Oman has ratified various international treaties and agreements that deal with the environment and climate change. For instance, Oman ratified the United Nations Convention on Biological Diversity as well as the UNFCCC in 1995. Also, it is a signatory of the United Nations Convention on the Law of the Sea. In 2005, Oman ratified the Stockholm Convention on Persistent Organic Pollutants. Likewise, it has acceded to several international agreements. In 1981, Oman agreed to the Heritage Convention Concerning the

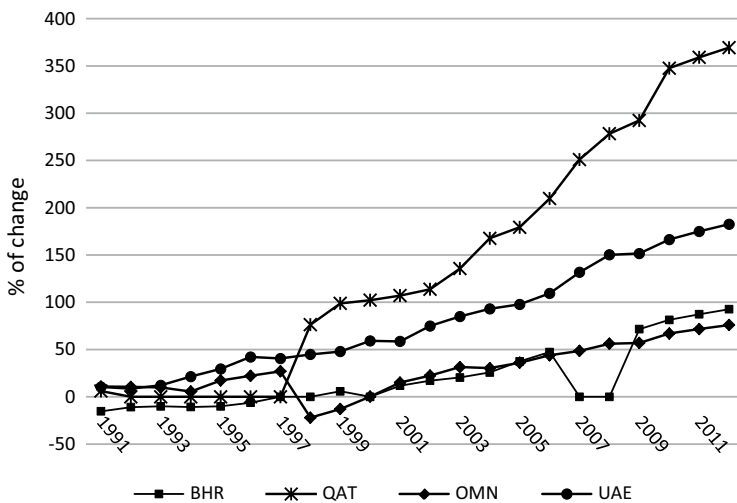


Fig. 2 Total greenhouse gas emission of four GCC countries (% of change from 1990). *Source:* World Bank (Online version). *Note:* Data for KSA and Kuwait are not available

Protection of the World Cultural and Natural Heritage, the first among the GCC countries. Five of the GCC countries (except Bahrain) acceded to the Kyoto Protocol in 2005 (Bahrain acceded in 2006). Also, Oman is the first in the region to agree to the United Nations Convention to Combat Desertification. Among the GCC countries, Oman and Qatar are the two countries that acceded to Cartagena Protocol on Biosafety. Although the last among the GCC countries, Oman endorsed the Vienna Convention for the Protection of the Ozone Layer in 1999.

The presence of Oman in different international treaties and agreements proves that the country is sincere in its attempts to tackle environmental problems. In line with this trend, the Sultanate has enacted various laws and issued several decrees that directly address environmental issues. For instance, Sultani Decree 34/74 promulgated the Marine Pollution Control Law which aimed at ensuring the safety of the marine environment. In addition, Sultani Decree 68/79 established the Council for Conservation of Environment and Prevention of Pollution. This was followed by Sultani Decree 10/82 (replaced by Sultani Decree 114/01), which issued the Law on Conservation of the Environment and Prevention of Pollution. This decree is the catalyst in establishing the practical and scientific basis for private and public practices in environmental fields. Moreover, Sultani Decree 45/84 established the Ministry of Regional Municipalities, Environment and Water Resources to ensure a sound and healthy natural environment.

Although hydrocarbon is the primary source of GHG emission in Oman, recent setback resulting from the oil price decline has forced the country to look for ways to diversify its economic activities. In this move, financial sector is going to be the focal point for various reasons. For example, shifting from the traditional fossil-based sources of energy to renewable resources will require substantial financial resources. On the other hand, economic diversification will create new opportunities and sectors for investment which requires significant funding. Thus, financial sector is perceived to play a decisive role and Oman has to focus on making the financial sector more competitive in the era of global competition.

Oman's financial system consists of seven local commercial banks (including two Islamic banks), nine foreign banks, six finance and leasing companies, and two specialized banks which mainly focus on housing and small and medium enterprises financing. As expected, the financial system is dominated by the banking sector, with a total asset of about OMR 34 billion (equivalent to USD 88.32 billion) constituting about 90% of the financial system assets. The banking system remained insulated from the worldwide financial crisis of 2007–2008 and continued to support the growth of diversified economic activities in the Sultanate. Although the credit expansion slowed down a bit by the plummeted oil price starting from 2014, the rising trend rebounded subsequently. In 2018, credit extended by commercial banks increased by 6.4% and the deposit increased by 7.8% compared to the preceding year. Islamic banking which constitutes 13% of the total banking sector assets is also rising steadily in commensuration with its conventional counterpart. Financing extended by Islamic banks and Islamic banking windows of conventional banks recorded an annual average growth of 58.1% during the period 2014–2018. As of December 2018, total loan and total asset of Islamic banking amounted to OMR 3.6 billion and OMR 4.4 billion, respectively.

As a significant business segment of the country, banks should commit and refocus on their responsibilities toward environment. At the same time, they should be ready to tap any profitable opportunities created by climate change to keep the thriving banking sector afloat. At present, there are no separate environmental guidelines for banks in Oman. They are considered corporations and fall under the regulations applicable to other corporations as usual. Beyond these regulations, any further environmental initiatives undertaken by

banks are merely voluntary or CSR activities. Table 1 summarizes the commercial bank's greening initiatives in Oman reported in their annual report, 2018. It is observed that banks activities for tackling climate change are not substantial. Only Bank Muscat has some discernable steps toward greening the environment. The notable among them is the bank's recent initiative, in collaboration with the International Finance Corporation (IFC), to start Oman's first Green Finance scheme for environment-friendly homes. Under this scheme, bank will finance customers to install solar panels on their rooftops and use solar energy for a large part of their household energy requirements at a considerable competitive rate. Moreover, the chairman's message to shareholders expressed some concerns regarding environment and highlighted some initiatives that may help reduce carbon footprint. The bank's 2018 annual report contained a section named 'corporate sustainability and CSR vision' that addressed some environmental concerns. Besides, Bank Sohar International, Bank Nizwa, and HSBC Oman hinted some concerns about environment although these concerns are mostly related to potential risk resulting from climate change that may negatively affect banks' portfolio. The remaining five banks did not disclose anything related to initiatives for green banking in their 2018 annual report.

Banks in Oman are lagging behind their GCC counterparts in terms of green-banking initiatives. For example, Dubai has been transforming into a regional green-banking hub. The National Bank of Abu Dhabi (renamed as First Abu Dhabi Bank when merged with First Gulf Bank in December 2016) issued green bond amounting to US\$587 million. in 2017, the first ever of this kind in the GCC region. In KSA, Saudi British Bank (SABB) (merged with Alawwal bank in June 2019) has taken various pragmatic steps toward greening the environment. Besides its various round-the-year efforts, SABB sponsors various projects organized by Saudi Wildlife Commission, and the British Council. Also, it has accomplished several environmental projects in collaboration with Saudi-British research project supervised by the local and international experts. Similarly, Doha Bank has a complete green-banking platform named Doha Green Bank where all banking operations are performed maintaining environmental codes. Banks in Oman still need more efforts and initiatives to be at par with the leading GCC banks.

4 Methodology

Primary methodological concern for this research stems from the fact that coding the initiatives undertaken by banks as part of their environmental performance is difficult. Hence, the research aims to follow the methods of Clarkson et al. (2004, 2008) which adopt general guidelines of global reporting initiatives (GRI). However, our preliminary study finds that the commercial banks in Oman rarely report and communicate their environmental initiatives through annual reports (Table 1). With limited data available, it is impractical and bears limited rationality to conclude from the research. Thus, the research focuses on interview method. Since the variables are not clearly known (e.g., lack of reporting of environmental initiatives by financial institutions, if there is any) and the topic is new and unaddressed in Oman, qualitative exploratory research has been conducted following Creswell (2009). A semi-structured questionnaire was designed (Appendix) to ask bank's policy-makers about their existing initiatives and future plan on this issue. This study has collected opinions from individuals who are knowledgeable about the issue (Sue and Ritter 2012:2; Rahman et al. 2016; Rahman and Ahmad 2016). A total of 22 individuals with varied positions from managing director to branch manager were randomly selected from

Table 1 Major environmental initiatives reported in the annual report of banks (2018). *Data source:* annual report of banks

Bank	Total asset (RO 000)	Market share (%)	Green initiatives undertaken
1 Bank Muscat	12,288,039	38.82	<ol style="list-style-type: none"> 1. Planning to construct a public park to foster a sense of appreciation of green environment among community members 2. Rewarding initiatives for greening of football field program in the past 7 years 3. One branch of the bank is fully equipped with solar panel, helping to reduce 52.56 tons of CO2 yearly
2 Bank Nizwa	872,168	2.76	<ol style="list-style-type: none"> 1. Environmental impact is recognized as an operational risk 2. Acquired a number of green projects including environment improvement in some areas of the country
3 Bank Sohar International	3,046,403	9.62	<ol style="list-style-type: none"> 1. The bank recognizes that it is exposed to uncertainties and risks due to environmental factors 2. Supports various initiatives of national interest including road safety and environment awareness campaigns
4 Bank Dhofar	4,213,490	13.51	No mention
5 Oman Arab Bank	2,328,818	7.36	No mention
6 National Bank of Oman	3,572,922	11.29	No mention
7 Alizz Islamic Bank	682,812	2.16	No mention
8 Al Ahli Bank Ltd	2,290,400	7.24	No mention
9 HSBC Oman	2,360,619	7.46	<ol style="list-style-type: none"> 1. Environmental impact is recognized as an important risk to be managed 2. Bank's business continuity planning committee oversees the impact of climate change on natural environment and bank's portfolio risk

different banks for interview. Care has been taken so that at least one interview is covered from all commercial banks currently operating in Oman. Written scripts have been sent to the respondents to confirm that the scripts reflect what they have said during the interview. The interviews are summarized in Table 2.

5 Findings

5.1 Environmental concern in the day-to-day activities of banks

All of the respondents have answered 'yes' to the question as to whether their respective banks adopt any measures in their day-to-day activities helping the environment. In explaining the details, respondents have hinted various ways of environmental conservation. For instance, most of the banks emphasize on digitalizing their system so that the use of paper can be reduced. One particular bank has adopted policy called 'reference management system' in which the bank has changed manual loan approval system to entirely digital system. However, almost all banks have initiated 'paperless' philosophy and are implementing it gradually. In doing so, they depend on channels instead of manual loan and other service processing. Also, some of them have adopted a policy in which printers use black-and-white cartridge instead of color, unless color printing is genuinely required. Mobile banking is also one of the priorities of banks in the process of digitalization and being paperless. Some respondents, especially the branch managers, honestly confessed that they did not do anything special at the branch level that might help make their branches cleaner. Respondents pointed, when spelled out some of the initiatives they have already undertaken to save the environment, that these are sheer cost saving methods of modern banking and did not perceive these initiatives from green-banking perspective. Some respondents also emphasized that they should be more aware about environment facts in their day-to-day activities.

5.2 Institutional capacity for environmental awareness

Diverse opinions have emerged with regard to institutional capacity of banks to promote environmental awareness. By institutional capacity, we emphasized to mean that a bank has top management with a dedicated position which is pro-environmental in its leadership decisions governing the business. It is not enough that the top management formulates policies which insist on green-banking philosophy; nonetheless, it is to be ensured that these policies are regularly communicated with the management of branches. At the same time, branches are to be frequently monitored to ensure that green-banking policies are properly implemented.

Some of the respondents particularly at the branch level think that institutional capacity of banks to protect environment is limited. Even if a bank's vision and mission reflect green-banking philosophy, they are not properly spelled out to actionable level and are not regularly communicated with a clear instruction as to what a branch should do to be pro-environmental. Some managers think that at least an active member in the board can be selected from environmental groups to bring a formal representation in the management. However, others argued that banks have enough institutional capacity to address the issue of climate change. Tackling environmental issue is not a matter of choice, but a 'must-do' phenomenon and management is ready with all the available capacities to face the

Table 2 Summary of interview

Respondents	Designation	Education	Years of experience	Your bank cares about environment in its day-to-day activities	Central bank has an important role to play
1	Executive Manager, Branches and Products	Bachelor	24	Yes	Yes
2	Manager	Diploma	18	Yes	Why not
3	Manager	Masters	12	Yes	Not necessary
4	Manager	Masters	11	No	Yes
5	Manager	Diploma	13	Yes	Yes
6	Deputy Manager	Bachelor	25	Yes	Yes
7	Manager	Diploma	21	Yes	Yes
8	Manager, Retail Business	Masters	4	Yes	Yes
9	Manager	Bachelor	10	Yes	Yes
10	Head, Sustainability	Bachelor	5	Yes	Yes
11	Manager	Bachelor	5	Yes	Yes
12	Manager	Bachelor	4	Yes	Yes
13	Head, Corporate Communication and Sustainability	Bachelor	5	Yes	No comment
14	Manager	Masters	5	Yes	Yes
15	Deputy Manager	Bachelor	4	Yes	Yes
16	General Manager, Wholesale Banking	Masters	25	Yes	Yes
17	Manager	Bachelor	12	Yes	Yes
18	Manager	Bachelor	15	Yes	Not sure
19	Manager	Diploma	18	Yes	Yes
20	Manager	Masters	20	Yes	Yes
21	Manager	Bachelor	13	Yes	Yes
22	Manager	Bachelor	20	Yes	Yes

challenge. Some managers reiterated that it is the culture of the top management to comply with the environmental codes.

5.3 Investigating clients' carbon footprint while sanctioning loans

All of the respondents anonymously agreed that at present, they do not cause inconvenience to clients by asking questions about impacts of their projects on environment. Some managers have mentioned that they mostly focus on the risk involved with the customers and stay within the interest of the bank. In general, loan officers do not ask any information which is not required by the law or loan application. Moreover, environment-related query has no place to quote in the loan application nor is it a criteria to sanction the loan. The problem is that banks cannot freely ask a client about something which is not required for sanctioning loans. Even if they ask (in most cases they do not ask), customers are not bound to disclose. Thus, bank managers think that asking a client about environment aspect or their projects' carbon footprint is a competitive disadvantage given the current rules and regulations applicable for sanctioning loans. Such a practice is not peculiar to Omani banks only. Campbell and Slack (2011) found that recognition of the materiality of environmental risks in the British banks was uncommon, and environmental narratives were often ignored and considered as perfunctory. Nandy and Lodh (2012), however, provided evidence that US banks tended to extend loans to eco-friendly firms at a rate cheaper than the rate applied for a firm with lower environment score.

In Oman, managers have some business practices that help protect the environment. For instance, most Islamic banks offer *Murabaha* (mainly as car loan). One manager of an Islamic bank branch emphasized that the bank does not finance car which is more than 3 years old (from production year). This practice can be considered environment friendly because new cars are equipped with recent technologies which might cut harmful carbon emissions compared to older ones. However, managers have accepted that they exercise this practice for their own business-sake, and not from environmental awareness because sanctioning loan for older vehicle is risky. One manager (Oman Housing Bank) has emphasized that for housing loans, banks nominate engineers to visit the site where the house is planned to be built. The engineers keep visiting the site until the project is complete, and they oversee that the construction does not violate any applicable rules. However, it is the owner's responsibility to comply with, if there is any, environmental standard. Also, the engineers sometimes advise owners to focus on eco-house, but the ultimate compliance with this suggestion depends on the owners' will.

5.4 Environmental performance of bank compared to other industries

In response to the question as to how managers compare the strategic position of banks with other industries as far as the environmental issue is concerned, opinions mostly dominate the consensus that banks cannot directly take part in environmental protection since this industry is the indirect player. Banks do not have direct influence on increasing or decreasing carbon footprint. In this sense, most respondents believe that some sectors which are directly responsible in degrading environment through various ways should extensively be involved with clean projects.

Oman as an oil rich country has plenty of environmental issues related to oil extraction, refinery, and export. Apart from oil and gas industries, some have pointed out tourism sector which should be considerably responsible toward environmental protection because this

industry has an enormous impact on environment. For instance, even a small coffee shop located in the eco-site may take serious steps toward clean environment by properly managing the garbage it produces. Also, the role of state in cleaning solid and other wastes can have more meaningful contributions toward protection of the environment.

Contrasting to this majority consensus, few respondents (two, to be specific) have stressed that environmental problem is real, and this problem should be tackled by all sectors together. It is impractical to single out any particular sector in terms of priority. Environmental issue is so profound that it affects all across the world. While some sectors are more responsible for polluting the environment, they are doing their part because various regulations directly address them. Yet, the concern is if some sectors do not move at all because the existing regulations do not require them to reduce carbon footprint at a target level, the potential impact would be high.

5.5 Motivating forces for banks to act environmentally

Most of the respondents think that environmental aspect of banks should fall under the broader CSR. Bank as an important player of the society should actively take part in various activities toward greening the society, emphasized by many respondents. They further mentioned that simple initiatives such as tree plantation can be a great contributing step for banks toward their move to reduce carbon footprint.

However, managers rarely recognize the opportunities created by the climate change. From business perspective, banks may seek to finance projects which are 'eco-friendly,' for instance eco-house and other energy-efficient projects. At the same time, they should retreat gradually from financing project or firms operating with obsolete technology which have high carbon mark; otherwise, any regulations in the future that aim to limit carbon emission may badly hit bank's investment portfolio. On the other hand, loan at a concession rate for building eco-friendly house can also be beneficial from business point of view, of course with the active support from the government. Building solar panel at home falls into the category of eco-housing which may be a promising financing area for banks. Respondents were also equivocal in mentioning that external recognition scheme for being green can be encouraging. When any outside entity recognizes and appreciates institutional efforts toward environment, for instance with prizes and awards, institutions are motivated to put more of this effort.

5.6 The role of the Central Bank

It has been reflected in the opinions of respondents that financial sector currently lacks an organized and separate guideline. Thus, respondents have acknowledged the need for a clear and specific set of guidelines from the central bank. They think that the central bank, being the guardian-like apex body of the financial system, should play the key role in forcing and motivating financial institutions or banks in particular to significantly contribute to reduce carbon footprint. The central bank should issue a clear and comprehensive guideline for banks with regard to green banking and finance. Respondents also think that Ministry of Environment in collaboration with the central bank can formulate strategies on how to progress toward this end. It is beyond doubt that governing bodies of banks should be knowledgeable not only on the banking activities but also on how their business can minimize the carbon footprint of the environment.

Some respondents have further reminded that the central bank is currently issuing various directions for digitalizing which may help reduce carbon footprint. However, managers have stated that they would be happy to comply with any specific environmental guidelines issued by the central bank. Such an initiative should be on a voluntary basis at the outset. The central bank can frame a timeline within which all the banks should gradually adopt the guideline completely.

6 Conclusion

Environment and climate change are among the top priorities of any national government besides the international agreements and regulations. Since both the generations—the current and the next—are likely to be affected by the aftermath resulting from the changing climate, individual, society, country, and the industry have started to plan and implement different strategies to remain ‘eco-friendly’ and ‘green.’ In this paper, we have attempted to analyze current status of environmental performance of commercial banks operating in Oman, the motivating factors which influence environmental performance, and required strategies to ensure pro-environmental policy formulations. Given the fact that quantitative data are not sufficient for the study location, a qualitative approach including expert interview has been conducted.

The research finds that in day-to-day activities, environmental issues are being considered by the financial institutions; however, with regard to institutional capacity the level varies among the financial institutions. Banks in Oman are indifferent as to whether their clients are pro-environmental or not since questioning about projects’ environmental performance is not a regulatory requirement as of now. It has also been found that financial institutions perceive that the level of environmental degradation for which banks and other financial institutions are responsible is very insignificant compared to that of manufacturing units. Nonetheless, a clear and specific guideline from the central bank would help financial institutions to develop pro-environmental strategies and actions.

Based on these findings, several policy suggestions can be offered which can be regulatory and motivational. On the regulatory aspect, government can prepare green-banking guidelines by engaging various stakeholders in the discussion. The proposed guidelines can be implemented voluntarily at the beginning and a time frame can be specified through which all banks should comply with these guidelines. Such an initiative will create a level playing field for all banks. Given the fact that environmental performance of banks is still at infancy, government has to create soft coercion so that banks increase their awareness toward environment. Specially, banks have to be more lenient toward financing projects which adopt green technologies and projects which function with comparatively clean technologies. Second, financing projects which adopt green technologies (for instance, eco-friendly house and solar panel) should be encouraged by providing various motivations. Loan at a concession rate for building eco-friendly constructions can be arranged. Government in Oman at present provides huge subsidies for citizen’s utility bills which can be slashed and redirected to concessional loan arrangements. Besides, external recognition schemes to award as well as to recognize the champion in green banking should be in place by the initiatives of private or government bodies. Such an effort will make banks to be more committed to the environment.

Although this research is not an all-out effort to strategize concrete policies due to small sample size, the result of this research is believed to stimulate the debate in the stated issue

further. Future research is required to collect opinions of major stakeholders including firms, regulatory authority, and civil society to draw precise and actionable conclusion. Moreover, a comparative study in the GCC countries will be value-enhancing.

Appendix

Part A

Name

Affiliation: Private commercial bank
 State-owned commercial bank
 Non-bank financial institution
 Other (please specify).....

Designation.....

Duration in Current

Position (years): < 5 5 – 10 10 – 15 > 15

Highest Education: Bachelor Masters PhD
 Other (please specify).....

Part B (please describe in detail):

1. Do you think that day-to-day activities of banking sector in Oman address climate change and environment in any extent?
2. How do you assess the institutional capacities of the banking sector to address climate change and environment?
3. While sanctioning loan, are there any criteria that directly or indirectly ensure pro-environmental performance of the loan seeker/receiver?
4. What is the level and frequency of firms in dissemination of environmental activities initiated and implemented by them?
5. How do you compare environmental performance of banking sector with other industries?
6. How do the firms become motivated or self-driven to act environment friendly for banking operation?
7. What is the role of the Central Bank and government in making an effort for banking sector to ensure pro-environmental activities?

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