

Muhammad bin Ibrahim: Role of the Islamic financial system in supporting green technology

Keynote address by Mr Muhammad bin Ibrahim, Deputy Governor of the Central Bank of Malaysia, at The Green Financing: Discover Green Technology Industry in Malaysia “Role of the Islamic financial system in supporting green technology”, Kuala Lumpur, 8 October 2013.

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The recent haze that caused unhealthy air quality is the direct result of acute deforestation and irresponsible practices, a grim reminder of the unfolding environmental catastrophes confronting us and our future generation. Globally, extreme climate change, resource depletion and environment degradation have increasingly become looming threats to livelihoods. Greenhouse gas emissions are on the rise and atmospheric carbon dioxide concentrations are at its highest in three million years. It is reported that the global average temperature has risen by 0.74oC over the past century and is forecasted to rise by 1.8oC to 4oC by year 2100. Severe deforestation issues across the continents and over dependence on non-renewable energy resources pose further challenges to the finite carrying capacity of the earth. Sustainable development has become an imperative. It is a global imperative given the interconnected world we live in. It affects everyone. No one is isolated. A united action is therefore required to solve these major ecological problems before solutions become impossible.

I am pleased to be here today to speak at The Green Financing: Discover Green Technology Industry in Malaysia (GF 2013). I would like to congratulate the Islamic Banking and Finance Institute of Malaysia (IBFIM) and the Malaysian Green Technology Corporation (MGTC) for organising this conference, given the global surge in green technology activities as catalysts for sustainable developments. The aims of this forum are to narrow the gap of Islamic financial institutions’ understanding on green technology and to provide green technology companies with the latest information on Islamic financing products and services.

It was almost a year ago that I spoke at a similar Conference outlining on how the financial systems can play a catalyzing role in the development of green technology. I mentioned a number of broad key priorities and I am pleased to announce that encouraging progress has been made.

Today, my remarks place emphasis on the current and future prospects of Islamic financing solutions that can support the vibrancy and dynamism of the green technology ecosystem. In Malaysia, Islamic financial institutions can leverage on the large untapped opportunities in the green technology sector and at the same time contribute towards the country’s transformation into a high value-added economy.

Increasing global importance of green technology

Against the backdrop of current climate and environmental concerns that are the consequence of unsustainable economic activities, green technology emerges as a winning proposition. Green technology has strong potentials to stimulate economic growth while mitigating environmental degradation. National and international efforts to promote green technology as a new source of growth have intensified in recent years. There is a growing momentum in scaling up the green agenda on a global basis, with countries such as Denmark, South Korea, Finland and Germany already embarking on green technology movements in their respective countries. Since 2007, the worldwide market for green technology has grown on an average of 12% annually, and is now worth over EUR2 trillion. By 2025, it is forecasted to double to EUR4.4 trillion. The global market for renewable energy namely wind, solar photovoltaic (PV) and biofuels has grown by more than 30% in the recent few years and is estimated to reach nearly US\$400 billion by 2021 . Economies that have

strategically invested in the green technology sector are already reaping the benefits of the transition to green initiatives. Germany, for example, has a green industry growing at an annual average of 12% since 2007 and a global market share of 15%. Green technology companies contributed 11% of its GDP and employing 1.4 million workers. In the case of the solar energy sector, Malaysia is now one of the top producers in PV manufacturing and this industry has generated direct foreign investment of over RM12 billion and created over 10,000 skilled and well paid jobs .

Green technology offers specific solutions for pressing ecological and social challenges, and for this reason it is expected to continue to gain global importance. There are many forces that would drive the green technology industry into the future; demographic change, urbanisation, globalisation, scarcity of resources and the challenge arising from climate change. These forces would inevitably transform society towards a green economy. Its usage in traditional industries would promote the development of new technology and recast existing one. Green technologies have also proven to drive modernisation in the traditional industries, in terms of better utilisation of energy and natural resources and could prove to be a strategic advantage in doing business.

Some have aptly compared the green revolution to the industrial revolution, an era that had profoundly changed our civilisation. Just as the transformative 19th-century innovations changed businesses, so too will green technologies alter industries, companies and societies for the environmental good, thus with these changes create new opportunities for businesses.

The shift towards a green economy affects all stakeholders – decision makers, and policy formulators, companies and their customers. Increasingly, investors are emphasizing sustainability to the environment as an important investment criterion. In Malaysia, the New Economic Model incorporates sustainability as one of its key principles and it has been identified as a Key Strategic Reform Initiative. In 2009, we have made a commitment in Copenhagen to reduce up to 40% in terms of carbon emission intensity of GDP by the year 2020. The National Green Technology Policy launched during the same year provides direction and motivation for the growth of the green technology industry and to enhance its contribution to the national economy. Key agencies such as MGTC and Sustainable Energy Development Authority (SEDA) have been established to provide the required support and incentives to promote the industry.

On the financing side, Bank Negara Malaysia has worked closely with the Ministry of Finance and the Ministry of Energy, Green Technology and Water to establish the Green Technology Financing Scheme (GTFS). The scheme is expected to benefit over 140 companies. With an initial allocation of RM1.5 billion, it was recently increased with an additional RM2.0 billion. The scheme was structured to reduce the financial risk borne by financial institutions, as the government guarantees 60% of the financing amount via Credit Guarantee Corporation Malaysia Berhad (CGC) and bears 2% of the total interest or profit rate. This financing framework aims to improve the preconditions for financial institutions to finance viable and innovative green technology companies. It provides avenues that help bridge information gaps between financiers and businesses, and introduces credit enhancements and financial incentives to address any market short comings in meeting a legitimate economic need. Efforts are also being carried out to strengthen the capacity of financial institutions to provide advisory support to businesses. The certification process that verifies the businesses which qualify for the GTFS is central to these efforts, as it not only verifies the technical capabilities of the businesses, but also assists in assessing its commercial viability.

Since the introduction of the GTFS in 2010, the growth of green technology financing in Malaysia is beginning to gain traction amongst financial institutions. To date, 109 approved projects have received financing worth RM1.5 billion by 22 banks, of which 17 projects are receiving financing worth RM300 million from six Islamic banks . For the first 9 months of 2013, 33 companies received approved financing facilities totaling RM416 million. The

approval rate for the financing has also improved from 54% in December 2012 to 59% in September 2013, reflective of the positive reception of financial institutions towards green technology financing. The recipients of the financing facilities operate in a broad range of green technology sub-sectors that covers energy, buildings, transportation and water and waste management. This financing initiative has also contributed to increasing employment, with the generation of nearly 1,400 jobs. The additional allocation of RM2.0 billion of the GTFS therefore presents an opportunity for financial institutions, including Islamic banks to further expand financing into this new and exciting area of growth.

Strong potential for Islamic finance to support green technology

This brings me to my next point – the role of Islamic finance in contributing towards a diverse and robust financing ecosystem for green ventures. In the Quran, verses 11 to 14 of Al-Fajr emphasise the need to care for the environment and the forms of life that Allah has created on this earth that includes proper usage of natural resources. Prophet Muhammad (S.A.W), in a hadith in Musnad Ahmad mentioned that mankind would be rewarded for efforts in improving greenery; making it incumbent on every Muslim to contribute towards such efforts. In terms of the relationship between mankind and the environment, the teachings of Islam basically promote preservation of natural resources and the need to respect all living things. Failure to do so would be detrimental, as stated in verse 41 of Al-Rum where severe destruction of the land and sea would come upon those who mistreat the environment. It is therefore crucial for everyone, including Islamic banks to consciously play their role towards ensuring environmental sustainability. Achieving environmental sustainability is the responsibility of everyone and the banking industry must do its part.

The role of Islamic banks extends beyond being a component of a financial system, but as part of a total value-based social system that is driven by the principle of public interest or *maslahah*. This system seeks to enhance the general welfare of society. Environmental protection and sustainability should be part of the Islamic finance agenda to ensure the fulfillment and establishments of the spirit of Islamic tenets.

As the global economy is transitioning towards a low-carbon and more sustainable model, the industry can contribute immensely towards the greening of the world. Islamic financing facility for green technology is another growth area worth engaging and with the necessary incentives and infrastructure in place, our Islamic banks are capable of becoming a significant player.

While the funding of green technology projects from conventional banking is encouraging, the same cannot be said of Islamic banks, based on the latest data available. The approved GTFS projects indicate that only two projects have received financing from two Islamic banks in 2013, compared to the past two years, where six and seven projects were funded by Islamic banks in 2012 and 2011 respectively. Moving ahead, due to the increasingly complex, diverse and rapidly-changing nature of green technology, there is a need to develop new and innovative financial solutions to facilitate the growth of green technology companies. The Islamic banks need to respond to these needs or risk missing the opportunities brought about by the green technology revolution.

Of late, greater use of equity-based models in Islamic financial solutions has been observed. This includes participatory or equity based contracts such as *Mudarabah* and *Musharakah* that support entrepreneurial ventures. In Malaysia, the adoption of these contracts has increased from 1.4% in 2008 to 5.2% in 2012. The nature of these contracts provides immense opportunities for Islamic banks to leverage on the 'green certified' SMEs to use participatory contracts which advocate profit and risk sharing between banks and the borrowers.

The *Mudarabah* contract can be modeled for various financing purposes for the SMEs, such as for one-off project financing, new start-up enterprises, investment funds and *sukuk* structure. The *Musharakah* structure is applicable for private equity and venture capital

investments. The principles of these contracts can foster the spirit of entrepreneurship and promote due diligence and proper management of funds by the entrepreneur whom will benefit from the Islamic bank's expertise in profit generation and financial management. The contracts also strengthen the fiduciary duty of Islamic banks as manager of the business venture and help to align its focus on longer term value creation.

Islamic banks ought to further explore the possibility of using Mudarabah and Musharakah contracts to finance SMEs involved in green technology. However these contracts carry different sets of risks, therefore, it is important for Islamic banks to build its capacity in terms of talent and risk management capabilities to understand and manage new risks peculiar to the profit and loss sharing contracts. There is a need to adopt strong governance, transparency and disclosure practices to meet the due diligence requirements for determining the viability of business and investment proposals.

In Malaysia, the recently enforced Islamic Financial Services Act 2013 is an important milestone in providing an enabling environment to spur more risk-sharing transactions. This new legislation promotes certainty to the legal and regulatory treatment of Islamic financial transactions by providing legal recognition to the contractual requirements in accordance with the Shariah. There will also be issuance of Shariah and operational standards of each Shariah contract that provides greater clarity and transparency, therefore facilitating effective risk and profit sharing activities to take place. We aim to issue the relevant Shariah standards before the end of 2013.

I am pleased to note that a local conventional bank and an Islamic bank have recently embarked on an innovative financing for the renewable energy sector with the launch of a green mortgage to facilitate installation of solar systems for home owners to benefit from the nation's Feed-in Tariff plan. This positive move is an indication that banks are not only looking at corporate but also retail green financing. In providing home owners the opportunity to directly participate in the renewable energy sector, this distinctive financing also helps to boost investment and awareness on green technology in Malaysia. This is an exciting prospect for further achievements in the field of renewable energy, one which provides Islamic financial institutions the opportunity to take such initiative, in support of the government's aim to be environmentally sustainable.

The sukuk market, which is a high growth segment in Islamic finance also has an important role in supporting the growth of the green technology sector. Sukuk has become an important source of funding for long term development projects, ranging from infrastructure building, healthcare, transportation, telecommunication to education. The increasing role of the sukuk market in financing green and renewable energy projects illustrates the appeal of Islamic finance towards the growing socially responsible investment, sustainable investments and ethical finance. There is strong compatibility between sukuk and funding of green projects, which usually require large capital outlays with long gestation periods. There has been a series of issuances since the debut of the green sukuk in France in 2012, including the issuance of a sukuk in Malaysia earlier this year that is part of a larger US\$1.5 billion Multi-Currency Sukuk Issuance Programme for sustainable development that was ten times over-subscribed.

Globally, the increasing involvement of governments across the Middle East and North Africa (MENA) region in various projects for renewable energy and clean, efficient technologies indicate strong growth prospect for sukuk to support these green technology projects. Backed by the international Green Sukuk Working Group that has been instrumental in the development and issuance of green sukuk since its establishment in 2012, this segment of the Islamic capital market that advocates for greater socially responsible investment is expected to flourish further.

Reducing information asymmetry – a key pre-requisite for sustainable financing

Islamic finance has strong potentials to contribute towards a sustainable financing ecosystem for the green technology sector. I have shared with you the different facets of Islamic finance that can meet the needs of green businesses. Key to this is the need to reduce the information asymmetry between Islamic financial institutions and businesses. The GTFS framework has been instrumental in assisting to bridge the information gaps between financiers and businesses. Islamic financial institutions now have to build its capacity and capabilities to assess the viability of the green projects despite its complexity.

Green technology is a fledgling industry in this country and the banks require the knowledge and expertise to conduct thorough evaluation of the projects. Training institutions such as IBFIM can play a role in developing talents beyond the needs of traditional business and create experts in the assessment and evaluation of green projects. This would assist the development of new skills for the credit officers and risk management personnel to effectively undertake competitive analysis of the prospects presented by green projects. Islamic banks could, in phases, consider to adopt the Equator Principles, a pledge given by 78 of its international conventional peers to enhance their capability to provide financing to ventures which are both economically viable and environmentally friendly.

Conclusion

The growth potential of green technology in Malaysia is boundless with the strong prospects to contribute significantly to the country's transformation into a high value-added economy. There are large untapped opportunities in this sector and Islamic financial institutions can allocate its resources into this segment to carve a niche market for Islamic finance.

On that note, I hope for this conference to become an impetus to spark greater interest from Islamic financial institutions to further explore financing for green ventures and to generate new innovative Islamic financial solutions for this viable and promising new growth area.