

# **GREEN BANKING AND SUSTAINABILITY**

Thesis Submitted  
to Sri Sri University, Cuttack  
for the award of the degree of

**DOCTOR OF PHILOSOPHY**  
in  
**MANAGEMENT**

Submitted by  
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# SRI SRI UNIVERSITY

Doctor of Philosophy

Faculty of Management

This is to Certify that Mr./Ms. *Dr. Raghavan Seetharaman*  
son/daughter of *Shri. G. Raghavan Sarma*  
has been admitted to the degree of Doctor of Philosophy in this University in the  
subject of *Management* at the convocation of *2015*  
Title of thesis *Green Banking and Sustainability*

## श्री श्री विश्वविद्यालय

डॉक्टर ऑफ़ फ़िलासफ़ी

प्रबन्धन-संकायः


इदमत्र प्रमाणीक्रियते यत् *Dr. Raghavan Seetharaman* नामा / नाम्नी  
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शोधप्रबन्धस्य विषयः *Green Banking and Sustainability*

  
Executive Registrar  
Dated: *01.10.2015*



  
Vice Chancellor

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Sri Sri University



**FACULTY OF MANAGEMENT/GOVERNANCE  
STUDIES  
SRI SRI UNIVERSITY  
Cuttack, Odisha  
June 2015  
GREEN BANKING AND SUSTAINABILITY**

## DECLARATION

I, Dr. R. Seetharaman, hereby declare that the thesis entitled "Green Banking and Sustainability" on which I have conducted research under the guidance of Dr. K. C .Mishra, Professor, Vice Chancellor, and also Dean of Faculty of Management Studies, Sri Sri University being submitted to Sri Sri University for the award of Ph. D. Degree, is original work and the same has not been submitted earlier to any institution for the purpose of any research degree or diploma.

I also declare that mistakes if any are mine and I hold responsibility for the same.

Place: Doha, Qatar  
Date: 24<sup>th</sup> June 2015



Signature  
Dr. R. Seetharaman  
Regd. No. SSU/PhD/14IM018

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## **LIST OF MAPS**

Climate Map: Global Warming a Global Warning

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## **LIST OF ABBREVIATIONS**

### ACRONYM DEFINITION

ADB	Asian Development Bank
ATM	Automatic Teller Machine
Basel III	Third Basel Accord
CDs	Certificate of Deposits
CDM	Clean Development Mechanism
CMA	Oman Capital Markets authority
CO2	Carbon dioxide
COP	Conference of the Parties
CEO	Chief Executive Officer
CFU	The World Bank Carbon Finance Unit
CSEE	Chevron's Centre for Sustainable Energy Efficiency
CSO	Civil Society Organisations
CSR	Corporate Social responsibility
DOE	U.S. Department of Energy
DCS	District Cooling Services
DED	Dubai Department of Economic Development
EPIA	European Photovoltaic Industry Association
ESRM	Environmental and Social Risk Management
EU	European Union
EIB	European Investment Bank
ESCO	Energy service company
FAO	Food and Agriculture Organisation of the United Nations
FDI	Foreign Direct Investment
FTAs	Free Trade Agreements
G20	Group of Twenty
GCC	Gulf Co-operation Council
GEO	Global environment Outlook
GHG	Greenhouse Gases
GRI	Global Reporting Initiative
GSP	Generalised system of preferences
HLTD	High Level Thematic Debate conference
IET	International Emissions Trading



## **List of Abbreviations (Continued)**

JI	Joint Implementation
MENA	Middle East and North Africa
OECD	Organization for economic cooperation and development
PPP	Public Private Partnership
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UNPRI	UN Principles for Responsible Investment
UNEP	UN Environment Programme
UNGC	UN Global Compact
SIA	Sustainability Impact Assessment
SMEs	Small and Medium Enterprises
SMS	Short Message Service
S&P	Standard & Poor's
QSTP	Qatar Science & Technology Park
QDB	Qatar Development Bank
QE	Qatar Exchange

## **CHAPTER -1 - INTRODUCTION**

### ***BACKGROUND/ RATIONALE OF STUDY***

Individuals, Corporates and Economies should contribute to economic, social and environmental development with the aim of achieving sustainable development. “Sustainable development is the one that meets the needs of the present without compromising the ability of future generations to meet their own needs.”<sup>(1)</sup> Climate change is the most significant challenge to achieve sustainable development. Banks as responsible corporate citizens adopt Green Banking as part of Corporate Social responsibility (CSR) and Sustainable development.

Green Banking considers all the social and environmental factors with an aim to protect the environment and conserve natural resources. It is also called ethical banking or a sustainable banking. It promotes environmental-friendly practices and reducing carbon footprint from the banking activities. Green Banking will blend customers’ financial interests with the interests of the environment. Green Banking will also enable environmental sensibility to pay off for clients and for the planet. Green Banking is an innovative solution for sustainable development. “Poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development are the overarching objectives of and essential requirements for sustainable development.”<sup>(2)</sup> “A Green Economy, supported by a strengthened Institutional Framework for Sustainable Development is based on safe, secure and low-carbon energy, with integrated climate change and development priorities taking into account resilience to natural and manmade hazards.”<sup>(3)</sup> Global warming and the expected depletion of the conventional energy sources such as oil and gas are pushing the GCC (Gulf Co-operation Council) countries to search for subsidiary energy sources. The per capita carbon dioxide emissions in GCC countries are the highest in the world and hence Banks in GCC Region have given a thrust on Green Banking and Sustainable development.

## **CHAPTER -2 – OBJECTIVES AND METHODOLOGY**

### ***A) Objectives***

The objectives are

- a) Highlight the need for Green Economies;
- b) Importance of Green Banking as part of CSR ( Corporate Social responsibility) and to mitigate climate change
- c) The role of Public Private Partnership (PPP) in Climate Change.
- d) The impact of Climate Change on Food security.
- e) SME's role in Sustainable development
- f) Review the measures taken at the Global level in relation to climate change and sustainable development.

### ***B) Hypothesis***

- Green economies are the solutions to global sustainability.
- Green Banking encourages Green economies and thereby mitigate climate change
- Effective Policies are required to attract Private Sector investment in climate change.
- Climate change mitigation is necessary to address Food Security Challenges.
- SMEs are critical for sustainable development of economies.
- Global Governance give emphasis on sustainable development.

### ***C) Research Methodology/ Literature Review***

My main source of research is my knowledge sharing which comprises of observations, discussions, data- gathering and my real life experiences as a practitioner in the areas of Green Banking and Sustainable development. I have mentioned the initiatives taken by Doha Bank on Green Banking and sustainable development under my leadership. I have also tracked measures taken at the Global level and GCC regional level on these areas. I have mentioned my active participation in Conference of the Parties (COP) to the UNFCCC (UN Framework Convention on Climate Change) meetings. I have referred multiple sources of information such as World Watch Institute report, Bloomberg, Reuters and S&P.

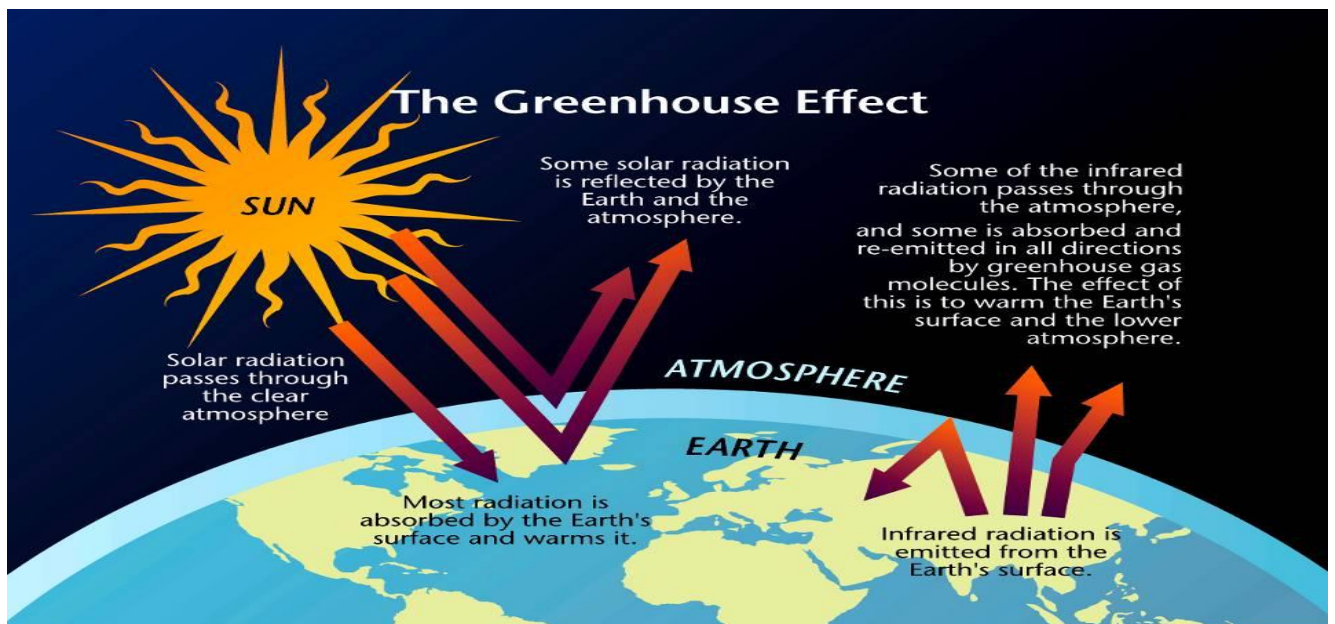
I have also covered various areas in my research which are related to green banking and impact sustainable development such as Green economies, Food security, Corporate Social Responsibility, Public –Private Partnership, Climate Change Financing, Small and Medium enterprises, Global and GCC Sustainability and Human resources. This ensures the research material widely covers the key issues pertaining to Green Banking & sustainable development. The research material mainly discusses the concept of green banking at the corporate level and importance of sustainable development. As individuals, corporates or Government we have a moral responsibility towards the nature and society and through my research I would like to emphasis that they should realize the importance of climate change and sustainable development and the challenges arising from them and thereby enhance their contribution in the best way possible to contribute to green economies.

## CHAPTER 3 - GREEN ECONOMIES

“Even if humankind manages to curb excess greenhouse gas emissions within the next half-century, the world’s oceans will continue to rise for up to 1000 years, reflecting the great inertial processes as heat is transferred from surface to deep water.”<sup>(4)</sup>



Cause for global warming: Carbon dioxide emissions in million tons per year over the last 200 years



Increasing Population, Increased Energy Needs, Increased Industrial Pollutants, Increased Domestic Pollutants and Low use of renewable and less polluting energy resources clog the Earth's 'Cooling System. For over 30 years, scientists have predicted increased greenhouse gases will cause unnatural changes.

“The vast North American continent ranges from the lush sub-tropical climate of Florida to the frozen ice and tundra of the Arctic. Within these extremes are two wealthy industrialized countries with diverse ecosystems at risk.”<sup>(5)</sup> The level of the oceans and seas will rise by between 18cm and 59cm by the end of the century as a result of the melting of the ice caps at the two poles. There are endangered species such as snow leopard, polar bear and the river dolphin.



**Endangered!**





**Globe 1°F warmer than 100 yrs ago. Last glacial max. was only 5°F cooler. Not equally distributed -Some areas have warmed 11°F. Winter and night increasing fastest (~5 times faster). Weather becoming more variable and more severe. The consequences of climate change mean & variance may be considered for scientific and social acceptance. Divergence of opinions may prevail for analysis of climate data for different time scenarios however it can also enable to identify various patterns in climate change.**



**Glaciers are melting rapidly**



There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activity-*Intergovernmental Panel on Climate Change (United Nations), Third Assessment Report, 2001*

International efforts to mitigate climate change needs improvement to meet the goal of keeping global warming to below 2 degrees Celsius above pre-industrial levels.



# GLOBAL WARMING a GLOBAL WARNING.

Source: Climate map



We are witnessing major cyclones and typhoons such as Gonu in May 2007, downpour in Mumbai in July 2005 and typhoon Hayian in Philippines in Nov 2013.



**Gonu- Category V Cyclonic Storm that hit Oman in May 2007**

In North America we have witnessed storms such as Katrina, Rita and Wilma and floods in UK. These put economic and social development at a global risk. However, with appropriate climate and energy policies, renewable energy sources can substantially contribute to human well-being, and thus lead to positive effects including a stabilisation of the climate. The environment awareness is highest in Japan Industries among the Asian countries.

“The United Nations environment agency has warned that the world continues to speed down an unsustainable path in spite of hundreds of internationally agreed goals to protect the planet, and stressed that drastic actions and big-scale measures are needed to reverse this pattern. Global environment outlook (GEO-5) of United Nations Environment Programme assessed 90 most important environmental goals and objectives and found that significant progress had only been made in four. The four goals entail eliminating the production and use of substances that deplete the ozone layer, the removal of lead from fuel, increasing access to improved water supplies, and boosting research to reduce pollution of the marine environment.”<sup>(6)</sup>



### **Pollution – Alarming increase in Air, water, solid pollution**

Climate change is a global challenge which requires an ambitious global response and a green economy will protect the planet from the worst effects of climate change. Hence it is necessary that we contribute to the development of Green Economy. “A Green Economy is an economy where governments determine, reshape and refocus their policies, investments and spending towards a range of sectors, such

as clean technologies, renewable energies, water services, green transportation, waste management, green buildings, sustainable agriculture and forest services, that promote environmentally-friendly and socially equitable sustainable development.”<sup>(7)</sup> Green economies are the solution to sustainable global growth.

“The international political response to climate change began with the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, setting out a framework for action aimed at stabilizing atmospheric concentrations of greenhouse gases to avoid “dangerous anthropogenic interference” with the climate system.”<sup>(8)</sup> Under this Convention, governments gather and share information on greenhouse gas emissions, national policies and best practices. Governments launch national strategies for addressing greenhouse gas emissions and the expected impact, including the provision of financial and technological support to developing countries. “<sup>(9)</sup>

The Kyoto Protocol is a part of the United Nations Framework Convention on Climate Change (UNFCCC), and is aimed at fighting global warming. The European Union (EU) was been a driving force for negotiations, which led to the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol.

“Kyoto protocol is an international and legally binding agreement to reduce greenhouse gases emissions worldwide, entered into force in February 2005.”<sup>(10)</sup> Many developed countries and countries with economies in transition committed themselves to reduce their GHG (Greenhouse Gases) emissions between 2008 and 2012 by an overall 5.2 percent compared to 1990 levels.

Three "flexibility mechanisms" for the mitigation of climate change were agreed upon:

- (1) Trading with quantified emission limitations and reduction obligations;
- (2) Joint Implementation;
- (3) The Clean Development Mechanism.

The Kyoto Protocol entered in 1997 in Kyoto, Japan is a protocol to the United Nations Framework Convention on Climate Change (UNFCCC), aimed at fighting global warming. The European Union (EU) had been a driving force on negotiations which led to the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The European Union has long been committed to international efforts to tackle climate change. The EU trade policy objectives include a liberalization of environmental goods and services, a need for global markets of carbon dioxide emissions trading, the development of renewable energy, and fostering trade cooperation to improve energy efficiency. Some

of the EU trade instruments, such as the generalized system of preferences (GSP) and the Sustainability Impact Assessments (SIAs) supported the environment.

The participating nations adopted the Bali Road Map at the United Nations climate change conference in December 2007. This was a two-year process to finalize a binding agreement in 2009 in Copenhagen. In the 15<sup>th</sup> Session of the Conference of the Parties (COP 15), in Dec 2009, the Copenhagen accord endorsed the continuation of the Kyoto Protocol, and recognized "the scientific view that an increase in global temperature should be below 2 degrees Celsius.

“The 16th session of the Conference of the Parties (COP 16) to the UNFCCC was held in Cancun, Mexico and called for rich countries to reduce their greenhouse gas emissions, as pledged in the Copenhagen Accord, and for developing countries to plan to reduce their emissions.”<sup>(11)</sup> In the 17th session of the Conference of the Parties (COP 17) to the UNFCCC in Durban, South Africa, negotiators agreed to be part of a legally binding treaty to address global warming. The agreement includes developing countries, such as China and India. The terms of the future treaty were to be defined by 2015.”The agreement "Durban platform" extends the Kyoto Protocol, whose first phase of emissions cuts run from 2008 to the end of 2012. The second commitment period is from January 1, 2013 until the end of 2017.”<sup>(12)</sup>

The 18th session of the Conference of the Parties (COP 18) to the UNFCCC was held in Doha, Qatar in Nov-Dec 2012 which came out with the “Doha Climate Gateway” to forward the solutions to climate change. “The 19<sup>th</sup> Session of the Conference of the Parties (COP 19) to the UNFCCC which happened in Warsaw, Poland in Nov 2013 has set a pathway for governments to work on a new universal climate agreement for deliberation in the next UN Climate change conference in Peru which will be an essential step to reach a final agreement in Paris, in 2015.”<sup>(13)</sup>

“At COP 20 meeting in Lima in Dec 2014, Nations concluded by elaborating the elements of the new agreement, scheduled to be agreed in Paris in late 2015, while also agreeing the ground rules on how all countries can submit contributions to the new agreement during the first quarter of 2015.”<sup>(14)</sup>



## DOHA BANK AT COP19



The concept of sustainable development has attained significant importance at the global level, and the United Nations conducted a conference on this in Rio-de-Janerio Brazil, called Rio+20, or the Rio Earth Summit in June 2012. In the summit, leaders reaffirmed their commitment to various initiatives through the document “The Future we want.” This summit’s major commitments were as follows. “Sustainable development and ensuring the promotion of an economically, socially and environmentally sustainable future for our planet and for present and future generations. Free humanity from poverty and hunger as a matter of urgency. Further mainstream sustainable development at all levels, integrating economic, social and environmental aspects. They will make every effort to accelerate the achievement of the internationally agreed development goals, including the Millennium Development Goals by 2015. They will strive for a world that is just, equitable and inclusive, and commit to work together to promote sustained and inclusive economic growth, social development and environmental protection and thereby to benefit all. They will continue to be guided by the purposes and principles of the Charter of the United Nations, with full respect for international law and its principles. They reaffirm the importance of the Universal Declaration of Human Rights as well as other international instruments relating to human rights and international law. They acknowledge that democracy, good governance and the rule of law, at the National and international levels. They recognize the opportunities for people to influence their lives and future, participate in decision-making and voice their concerns are fundamental for sustainable

development. “The sustainable development has been initiated at the Global level however requires continued support for effective implementation.

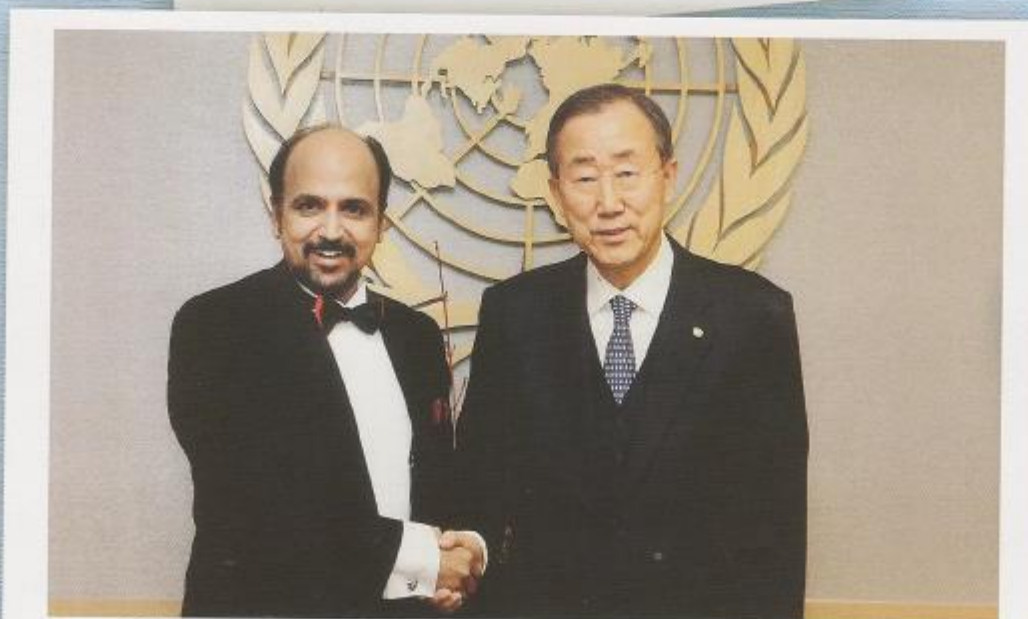
# COMPLIMENTS FROM H.E BAN KI MOON, SECRETARY GENERAL, UNITED NATIONS



Dear Mr. Sectharaman  
 Congratulations for all the achievements  
 you made last year.  
 I wish you continued good health  
 and prosperity in the New year.  
 I would also like to thank you  
 for your support for the common  
 cause to address climate change  
 and Millennium Development Goals.  
 With my warm regards,  
 Ban Ki-moon

سلام  
 和平  
 Peace  
 Paix  
 Мир  
 Paz

Ban Ki-moon  
 The Secretary-General  
 and Ban Secy Gen



Dear Mr. Raghavan Sectharaman,  
 With my warmest regards,

Ban Ki-moon  
 Feb. 11, 2010

## CORPORATE SOCIAL RESPONSIBILITY

Corporates must help to build the social and environmentally acceptable standards necessary to support the global economy, and to do this in such a way as to make globalisation work for everybody in the world.



- Corporate Social Responsibility (CSR) contributes to sustainable development in the areas such as
- Economic Growth – Sustainable profitability, if this is ignored, it becomes difficult to finance environmental and community responsibilities.
  - Social Development – If organisations ignore social issues, such as human resources they might lose skills.
  - Environmental consideration-If the environment is not considered, companies risk their reputation, customers and business options

CSR includes activities pertaining to corporate governance and ethics, health and safety, environmental stewardship, human rights, conditions of work, industrial relations, community involvement, development and investment, corporate philanthropy and employee volunteering, anti-bribery and anti-corruption measures and accountability, transparency and performance reporting.



“The corporate competitiveness needs to be integrated with social development. There is an inevitable link between business and society. A healthy business depends on a healthy community to create demand for its products and provide a supportive business environment. A healthy society depends on competitive companies that can create jobs, support high wages, build wealth, buy local goods and pay taxes. We should expand the points of convergence between economic and social objectives.”<sup>(15)</sup>

“CSR has the potential to create several distinct forms of value for customers. It is the customer perception of this value that mediates the relationship between CSR activities and subsequent financial performance. CSR leads to outcomes such as increased customer loyalty, willingness to pay premium prices, and lower reputational risks in times of crisis.”<sup>(16)</sup>

Some of the initiatives to improve CSR for customers include improve customer satisfaction, create products that are easy to use and secure quality. The commitment to customers include protecting and creating wealth, Meeting customer lifecycle aspirations, Improving quality of life through convenience and choices, Environment friendly lifestyle choices. The commitment to stakeholders include commitment to shareholders through wealth creation, commitment to people through development and satisfaction, commitment to community through quality of life and commitment to environment. The reporting framework for sustainability should be based on Global Reporting Initiative (GRI) guidelines incorporating also the Financial Sector Supplement.

Doha Bank Group as part of its corporate social responsibility demonstrates fair, open, efficient and consistent business practices to mitigate climate change and promote sustainable development. Doha Bank Group will encourage the use of eco-friendly technology in its products and services. Doha Bank Group will promote knowledge sharing sessions on Climate Change and Sustainable development regionally and globally. Doha Bank Group intends to support the reduction of greenhouse gas emissions which widely contributes to global climatic changes by offering effective market based trading systems to carbon market.

The sustainable development initiatives of Doha Bank are as follows:

- Paperless Banking, free access to do all the Banking transactions through Internet Banking, SMS Banking, Phone Banking, ATM Banking as well as online channels such as Doha Sooq, E-Remittances and Online Bill Payments
- Social Responsibility through positive contributions to the environment by joining Tree Planting, Beach Clean-up activities, etc.

- Branches and Department offices to be energy-efficient through the introduction of environment-friendly materials
- Conserve water and electricity consumption
- Purchase fair-traded and environmentally sound goods
- Make use of energy-efficient vehicles for business and private purposes
- Reduce Carbon Emission in traffic by reduction in petrol use of customers visiting to Doha Bank branches.
- Sustainability report with focus on Governance, transparency and stakeholder management
- Corporate Social responsibility report
- Car Pooling





Doha Bank has set up an award-winning Customer Care Centre, Tawasol, with innovative Customer Inquiry Tracking System, through key investment in sustainable technology. Such systems have been set to provide best-in-class Customer Service in Qatar. This commitment reflects a new phase in unified Customer Service, Customer Education and Customer Advisory Services which are all targeted at achieving the important end goals of Customer Satisfaction and Loyalty.

Doha Bank employees receive training of the highest standard from the Training & Job Rehabilitation Centre, which develops and provides training plans. These plans are part of a programme aimed at providing staff with the qualifications needed to occupy senior, middle, supervisory and executive management's positions. Doha Bank has a strong relationship with the leading educational institutions and has on many occasions worked alongside with these universities to chart a positive career path for their students.

Doha Bank is an enthusiastic supporter of the role of the youth in our future and believes that education is a fundamental right and requirement to help the youth of today transition into the leaders of tomorrow. With the current range of elite international schools and universities from around the globe and an advanced public education system, the Education Pack is developed by Doha Bank to support a child's long-term educational needs. As a responsible corporate citizen, Doha Bank supports and participates in initiatives and programs that contribute positively towards CSR.

Doha Bank conducted environmental seminars all over the world on Global Warming and Climate Change to promote sustainable and environment-friendly investments as a responsible corporate citizen.



Doha bank conducts “Staff Connect with CEO” on a monthly basis where in staff can provide feedback, voice issues and concerns or put forth ideas and suggestions for innovation/improvement that they believe will add value, either internally or to our customers. It also conducts “Customer Connect with CEO” on a monthly basis wherein Customers can raise their issues and concerns to the CEO.



**Dr.R.Seetharaman ADDRESSING THE GLOBAL WARMING SEMINAR AT WASHINGTON.**

**DOHA BANK KNOWLEDGE SHARING AT SINGAPORE**



Banks should also regularly organise professional seminars as part of its ongoing education and knowledge-sharing endeavor on various subjects ranging from Banking, Technology, Risk Management and the Environment.

Banks should undertake initiatives to promote greater environmental responsibility. Banks should encourage the development and diffusion of environmentally friendly technologies. Banks should support precautionary approach to environmental challenges. Banks should believe that an increasingly green stance is one of the key determinants of future sustainability. Banks should remain at the forefront of the delivery and sustenance of green banking principles. Banks should strive to incorporate these values in their everyday operations by encouraging the use of environmentally efficient business practices as well as overall products and services that reduce the impact on the environment. This should be a fundamental aspect of the corporate social responsibility charter. Banks should invest in Sustainable Development projects such as investment in renewable energy, Sustainable forestry, Waste management, Water management, clean technologies, Energy efficiency and Carbon credit markets. Banks should pay special attention to impacts on forests of high ecological value in our risk assessment process. They should also promote sustainable forestry projects – preservation and reforestation.

Doha Bank will strive to sustain the position of Best Green Bank in the Middle East. Doha Bank has won the Golden Peacock Global Award for sustainability in 2013 and also honoured with Best Corporate Responsibility Programme in the Middle East Award by EMEA finance Magazine in 2013. In 2014 Doha Bank won “Environmental Award” from the Arab Organisation for Social responsibility and Golden Peacock Global Award for Sustainability.



## CHAPTER 4 - GREENBANKING

As a forward-thinking and socially responsible citizen, Doha Bank has embraced sustainable business practices to satisfy its customers and promote solid environmental stewardship. In doing so the Bank has embarked on a greener path in business and their personal lives. Financial sector could participate in sustainable development by taking initiatives to “Manage Climate Change and Mitigate Global Warming”.

Doha Bank advocates and practices Green Banking, which is one of the core business philosophies that would support the sustainability into the future. Doha Bank is also active in supporting the youth of the nation from a human development perspective and conducts numerous programmes to help develop indigenous talent. Doha Bank also supports social integration across various areas of society and actively participates in key economic events, keynote sessions, and other major local and global programmes.



### **DOHA BANK'S GREEN BANKING VISION**

- To maintain the position as the Best Green Bank in the Middle East
- To make Doha Bank the pioneer in uplifting awareness to help save the environment

### **Green Bank Goals**

- Paperless Banking, free Access to do all the banking transactions through Internet Banking, SMS Banking, Phone Banking, ATM Banking as well as Doha Souq, E-Remittances and Bills Payments through online
- Social Responsibility through positive contributions to the environment by joining Tree Planting, Beach Clean-up activities, etc.
- Branches and Department offices to be energy-efficient through the introduction of environment-friendly materials
- Conserve water and electricity consumption
- Purchase fair-traded and environmentally sound goods
- Make use of energy-efficient vehicles for business and private purposes
- Reduce Carbon Emission in traffic by reduction in petrol use of customers visiting to Doha Bank branches

### **DOHABANK ECO SCHOOLS PROGRAMME**

Doha Bank has worked on “ECO-Schools Programme” which works with educational institutions to build awareness of key environmental issues and create action plans that are school-specific to help mitigate the overall impact on the environment. These include programmes that aim to conserve resources, as well as actively reuse and recycle materials in clever ways. Most importantly, the programme awards schools for their diligence and builds awareness and promotes initiatives at the grassroots of society, amongst the youth as well as among school staff and administrators. The ECO-Schools programme guides schools on sustainability initiatives which provide substantial opportunities to schools to explore various environmental concepts that can be implemented, improved, developed or retrofitted at their respective premises. Doha Bank has also started ECO School across GCC.





Welcome to the ECO-Schools website and please feel free to have a look around.

This website is dedicated to changing the world one school at a time. Links are provided above to provide you detailed information on the ECO-Schools Programme. For further queries, comments or suggestions, please feel free to provide your feedback and [CONTACT US](#)

Announcement

DOHA BANK & UNESCO

In which environmental-related category will your school most likely to initially submit for the ECO-Schools Programme?

- Environmental Health
- Energy-Saving
- Water Management
- Waste Management

[Submit Survey](#) [View Results](#)

**ECO-Schools Programme - Sample School Projects in 2012 & 2013**

**Bhavan's Public School - Vegetable Garden in School**



**M.E.S. Indian School - AC water used for the growing plants**



**Pakistan Education Centre - Water Irrigation from AC water**

## **GREEN CREDIT CARD BY DOHABANK**

Doha Bank launched Green Visa Credit Card which is a first for the region. The Card is manufactured from bio-degradable material and the cardholders are able to manage their accounts electronically. E-statements reduce paper usage and wastage. Furthermore, 1% of all that customers spend through the Go-Green card is converted into Green points and donated to an approved Green cause that supports environmental initiatives such as tree planting.



## **Green Account**

Green Accounts are Doha Bank's answer to a proactive approach on eco-friendly banking towards its drive for a cleaner and greener environment by promoting the concept of "Paperless Banking". The environment is protected by giving FREE access to customers to do banking transactions through Internet Banking, SMS Banking, Phone Banking and ATM Banking. Bank statements will be sent directly to the customer's e-mails thus reducing paper consumption and saving the trees. An innovative product whereby customers can do their banking transactions online, i.e., electronic bills payment, funds transfer, send money back home through the E-Remittances, online shopping through Doha Sooq and a lot more. Customers are encouraged to open Green Accounts and do their part to save the environment. This is just part of Doha Bank's objective to expand the green culture from within the organization towards the society.

### **DBank Online (Internet Banking)**

Perform all your banking functions sitting at the comforts of your home or office. Doha Bank offers you a secure and convenient way to bank over the Internet.

### **DBank Remit (Online Funds Transfer- Remittances)**

Doha Bank customers can perform e-remittance online from anywhere around the world and receive SMS confirmation on their mobile phone. Register now through DBank Online service or your branch. Remit now and enjoy the safest, quickest and least expensive remittance service from Doha Bank.

### **DBank SMS (SMS Banking)**

We have now made banking so much easier for our customers. With DBank SMS you can perform a wide range of transactions from your mobile phone to save you the time and effort of visiting the bank. Please click on SMS to see range of services or login if you have registered yourself.

### **DBank Dial (Phone Banking)**

Access to your bank accounts is now a call away! call and get all banking services using your phone, please ensure that you have registered for this service.

### **Doha Sooq**

Doha Sooq initiates the first e-Commerce portal, which introduces the convenient concept of Gifting in Qatar. Anyone in the world can buy and send a gift to anyone in Qatar.



**BUY**  
LULU PRODUCTS  
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DBankonline

- All Services
- Hala Recharge
- Kahramaa
- School Fee Payment
- Vodafone fixed Recharge

Subtotal: 0  
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It's where I shop from the  
**CONVENIENCE** of my home!

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### Paperless Banking

Doha Bank has various “Paperless Banking” in-house initiatives to reduce and eliminate paper usage and wastage such as usage of inter-office mail reusable envelopes, established a baseline for white paper usage, reduce unnecessary photocopying and printing, encourage double-sided printing and copying, etc. In addition, herewith below are the processes whereby paper usage has been automated:

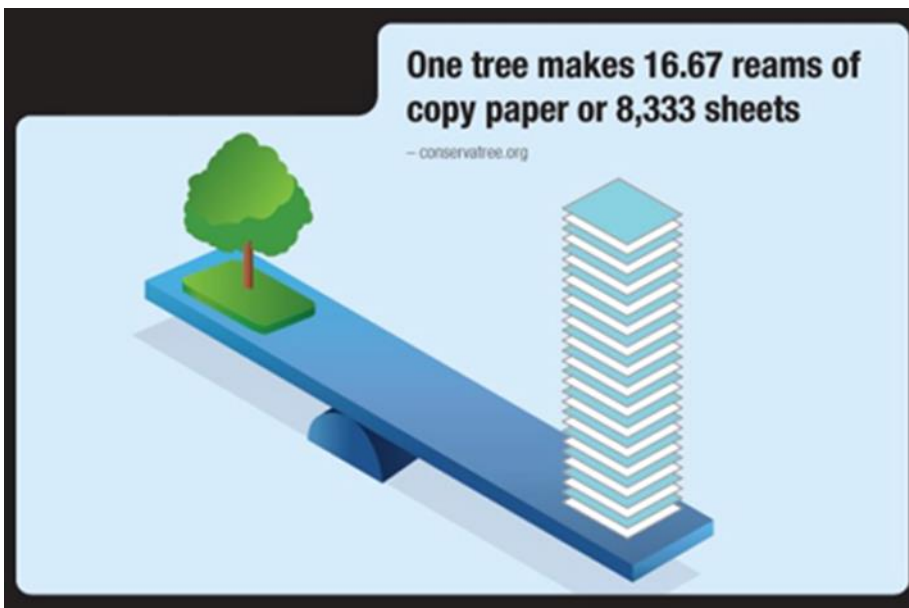
Channels used for Paperless Banking:

- E-Confirmation
- Smart Objectives
- Business Card
- Appraisal mechanism
- Leave Planner
- Medical File Upload
- Move Order Consumption Report Automation
- Direct Sales tracking
- Clinics Payment Automation
- Staff Reimbursement
- Deviation System Approval
- Centralized Property Evaluation

- Loan Origination
- Credit Card Workflows Retail
- Workflows



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These are just some measures introduced on paper utilization measures. Doha Bank also ties-up with Paper Recycling companies to further utilize its waste papers and save trees. We have also incorporated the e-Statement concept for Green Accounts and Green Credit Cards; provided the option for Account Holders to shift to e-Statements as well. E-Statements are sent to ensure that we do our part to save the trees.

Moreover, our ATMs are eco-friendly, providing the option for customers to either print or not to print statements to save the environment.



We also have the Green System (InfaSECURE) to automatically monitor and control hibernation/shutting down of PC's to save electricity consumption

Doha Bank Tower, West Bay - New green features were integrated to the Tower; i.e. dimming system, air conditioning variable frequency driver, transparent glass partitions







## Beach Clean-up

Doha Bank has been communicating to the international community the need to be environment-friendly through its Global Warming and Climate Change knowledge sharing sessions.

In line with these, Doha Bank organized a Beach Clean-up Campaign in coordination with the Ministry of Environment and Al Wakra Municipality at Al Wakra Beach on 19th February 2011.

The theme "Saving the Beaches Today, for the Children of Tomorrow" is in line with the Green Banking initiatives of Doha Bank to promote eco-consciousness to further instill the value of social responsibility and green culture within the organization by having full-participation from staff to act as environmental advocates for the green cause.

The Campaign was led by Doha Bank's Green Banking Task Force Committee, the Planet Savers Club comprised of in-house staff volunteers and MOE officials who proactively showed its commitment and support to the environment by removing rubbish and other waste materials from the beaches.

The event was organized to support Doha Bank's primary objective on its drive towards a clean and green environment and to create awareness on staff's social and environmental responsibility.



## Tree Planting

Doha Branch's Plant Savers Club will conduct a Tree Planting activity at select Branches and locations within the State of Qatar. Here are some of the guidelines in planting indigenous trees:





Doha Bank has strived to encourage both the development and diffusion of environment-friendly technologies and also supports a proactive approach to meeting environmental challenges. Doha Bank also conducted Green Quiz with Global warming and climatic changes as a central theme to spread awareness in various countries.

Doha Bank proactively supports the environment on its Tree Planting activity held at Dukhan on 30th November 2013 with a theme, “Plant More Trees, For a Greener Future (Plant A Tree, Create A Hope)” to further strengthen the Bank’s dedication to save the environment.



**Doha Bank Green Quiz in Tokyo**



**Doha Bank at High Level Thematic Debate conference (HLTD) organized by the United Nations in NY**





Doha Bank also hosted the Green fun run to generate awareness of environmental preservation and protecting the natural environment. Doha Bank has reached out to the larger community through its long standing Corporate Social Responsibility activities where the Banks committed to raise awareness on environmental issues and focus on the economic challenges facing the world and the region.

Doha Bank promotes the use of energy efficient vehicles for business and private purposes. Doha Bank will seek to minimize the use of energy in its activities. For example lights and equipment will be switched on only when needed and not out of routine. The Planet Savers Club of Doha Bank was started with its staff as volunteers for environmental protection. The club would aim to protect the earth's limited resources and to make it a corporate work culture and habit to use resources wisely. Doha Bank believes in grassroots advocacy to support a truly sustainable future. Doha Bank's approach to the youth and human development would be two pronged: Developing awareness of key issues that the youth of

today can champion for the betterment of tomorrow, and working within the community to provide talented youth with career and development opportunities that will help them play an active role in society. Doha Bank has also provided term loan for Emirates Central Cooling Systems, which provides Efficient District Cooling Services (DCS) to developments in Dubai and the surrounding region. District cooling systems is an utility provision which provides chilled water to buildings from a centralised chilled water production plant and can reduce energy consumption.



A dedicated Green Banking website of Doha Bank integrates the bank's initiatives in promoting environmental safety with the community by reaching out to both the public and private sectors. Doha Bank has transformed itself into eco-friendly institution and steps have been taken to encourage society to shift their mindset into going green. Doha Bank also conducted Green quizzes and built Green Buildings.

Doha Bank practices the principles of the 3Rs by:

1. Reducing waste where possible by thinking about what we buy and how we use it. Non-essential documents and emails will not be printed.
2. Re-use wherever possible by trying to find a second life for items especially paper and office stationery.
3. Recycle as the least preferred option of the 3Rs. All paper, card, glass, tin will be recycled. Toner cartridges and inkjets will also be recycled

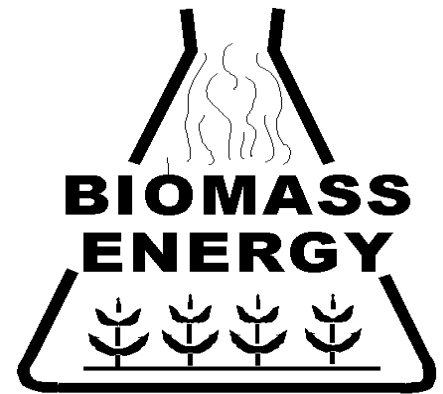
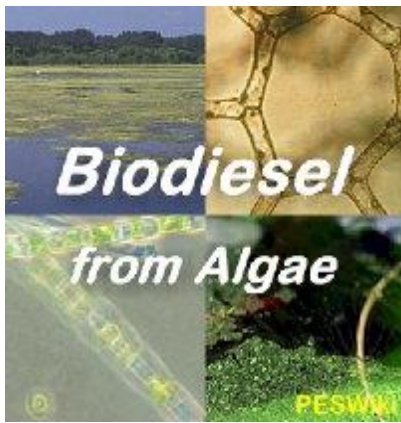
Global Banks have introduced various initiatives to promote green such as e- statements and encouraging mobile banking. Some of the global banks have also incorporated environmental risks in risk management, take measures to reduce energy and water consumption, develop solar powered ATMs and paper less banking. They have also developed Climate Change risk fund which is a fund for part of



CSR activities that are related to Climate Change Risk/ Condition. Some Investment Banks are providing funding facilities for non –residential energy efficiency projects. They had also developed dedicated teams for capital raising and deal advice for renewable energy and clean technology sectors.

Banks and Financial Institutions should be vision-driven in supporting its future activities, progress and expansion with a more diverse portfolio that integrates environmental and social considerations into its product design and strategies. Banks and Financial Institutions should strive to encourage both the development and diffusion of environment-friendly technologies and also support an active, rather than reactionary, approach to meeting environmental challenges. If you look at the key banking activities, one is lending and another is investing. Banks and Financial Institutions can practice micro finance to lift the poverty lines or lend for sustainable projects or invest in renewable energies and alternatives. Banks and Financial institutions should work on lending and investing towards renewable energy. Banks and Financial institutions should create a separate section for “Green Banking,” focusing on how to reduce carbon, and e- banking. Today there should be commitment and responsibility towards Green Banking as part of sustainable development. The impact of techno – economic policies on banking portfolios will be based on how they are designed and executed. The portfolios should be reviewed on account of change in techno – economic policies. Green Banking also consider impact from obsolescence and analysis of various scenarios.

Banks should align lending activities with those factors which impact the environment. They should develop environmental and Social Risk Management (ESRM) – Expand the scope of risk management to include Social and environment risk also. Develop policies and procedures and integrate them in proposal evaluation. They should encourage financing programs for eco-friendly programs such as home owners to purchase and install solar power systems, forestry projects etc. They should also evaluate the environmental policies and practices of corporate clients. They should also regularly conduct environmental audit and report all the projects financed. They should develop equator principles - provide loans only to those projects whose borrowers are socially responsible and comply with sound environmental management practices.



### **Invest in sustainable eco-friendly ventures**

Regulators should have Green mission and encourage Green Banking. The financial crisis was on account of development of exotic products. The regulatory framework is getting realigned to address this. However, banks should promote sustainability and getting “Back to Basics” becomes the key. Afforestation should be promoted among citizens and minimize use of paper. Green banking promotes some of these initiatives. Green Banking can be done through encouragement and conversion of existing normal Account Holders to Paperless Banking by opening Green Accounts and Go Green Credit Cards. Public Awareness Campaigns can be promoted through the Bank’s channels, and key community engagement programs such as tree planting, beach clean-ups and recycling activities. Certain regulatory frameworks have also encouraged earmarking a specific sum as part of corporate social responsibility activities. Banks falling under regulatory frameworks can utilize the appropriated sum for Green Banking Activities.

The Banking environment operates within the global standards of lending or investing and such standards have been revised after the Global financial crisis both in terms of liquidity and capital adequacy. The going –concern and gone concern capital has been redefined and suitable buffers have also been developed taking into consideration the liquidity and systematic issues. However in addition to above Banks as socially responsible citizens have a role to play on protecting environment and contribute to sustainable development. Hence every Bank should earmark minimum 10% of Tier 1 capital subject to a cap of 10% of risk weighted capital towards Green banking or Clean development mechanism or any Sustainable development projects taking into consideration the carbon emissions prevailing in the economy in which the bank operates. The initiatives may be in the form of lending or investing. This forms the basis for Green banking and brings prudence into the capital framework. The Clean Development Mechanism (CDM) allows developed countries, or companies within those countries, to invest in projects that either reduce greenhouse gas emissions or sequester carbon in forests in developing countries. Some of the Clean Development mechanism projects includes renewable energy: wind farms, hydroelectric power, reducing emissions in industrial and manufacturing processes and sequestering carbon through afforestation and reforestation. Green Banking enables bank to perform environmental due diligence before lending or investment, reduce carbon foot print and create awareness amongst the stakeholders about environmental and social responsibility enabling them to adopt environmentally friendly business practices. Green banking will play a crucial role in promoting Green economies.

## CHAPTER 5 - FOOD SECURITY

Across the world, 700 million people in 76 low and middle-income countries are food insecure, and the situation could grow worse in the poorest countries according to the US Department of Agriculture. The majority of undernourished people reside in developing countries growing population and adverse climate changes are the key challenges impacting food security. Food and Agriculture Organisation of the United Nations (FAO), has highlighted in its research content “ How to feed the world in 2050” that “Global food production will have to rise 70 percent by 2050 as the world population expands to 9.1 billion from about 6.8 billion in 2010.

“The FAO Food Price Index, which measures monthly changes in the international prices of five major food commodity groups - cereals, meat, dairy products, vegetable oils and sugar – fell in May 2015 by 1.4 percent from April 2015 and as much as 20.7 percent from a year earlier. It has dropped to the lowest level since 2009.”<sup>(17)</sup> The volatility of food prices in recent years has prompted developing countries with high poverty and weak safety nets to respond by ratcheting up consumer food subsidies. Climate change has become a threat for global food supply. “Without strong adaptation and mitigation measures climate change will reduce food crop yields by 16 percent worldwide and by 28 percent in Africa over the next fifty years. It is likely that price and yield volatility will continue to rise as extreme weather continues, further hurting livelihoods and putting food security at risk.”<sup>(18)</sup> “We can no longer look at food security, poverty and climate change separately. Climate-Smart Agriculture is a driver for green growth.”<sup>(19)</sup>

There is scope to increase soil carbon sequestration and reduce agricultural greenhouse gas emissions which also help meet food security objectives. Emissions can be reduced by improving the efficiency and productivity of agricultural systems through better management practices and techniques. This can also help build the resilience of these systems to meet the increasing demand for food in a sustainable manner. “There are various measures to promote food security. Some of them include integrating food security and sustainable agriculture into both global and national policies, raising the level of agricultural investment, sustainably increasing agricultural production, assisting vulnerable populations to adapt to climate change, reshaping food access and consumption patterns, ensure basic nutritional needs are met, reducing the amount of food lost or wasted in production and establishing comprehensive, shared and integrated information systems to track changes in land use, food production and climate change.”<sup>(20)</sup>

## CHAPTER 6 - PUBLIC- PRIVATE PARTNERSHIP

“Private players can play an important role in climate change. The private sector has been involved in financing infrastructure projects in the past. However the on-going economic and financial crisis has dramatically decreased the amount of long-term finance available and has made it more difficult to obtain bank loans for projects or products considered less commercially viable or associated with high risks. International finance institutions, such as the European Investment Bank (EIB), have tried to relieve the situation by increasing total lending, however available funds are greatly surpassed by overall investment needs. Attention is turning to ways to unlock the investment potential of the private sector. There is thus a need to find ways of engaging new private investors, particularly institutional investors to help address the climate financing gap. Key investment needs have been identified in various areas including energy infrastructure, renewable energies, advanced industrial processes, sustainable transport systems, and in relation to adaptation to climate change. The private sectors expected returns on climate-related investment should be commensurate with the perceived level of risk. This is however often not the case and the private sector continues to face challenges in investing in the low-carbon sector which includes inter alia risks relating to policies underpinning investments, regulatory uncertainty, distorted price signals, a lack of commercially attractive low carbon projects, difficulties in evaluating risks relating to low carbon investments, difficult business investment climate and inadequate access to finance and insufficient risk-adjusted returns. ” <sup>(21)</sup>

“PPP models can potentially address the challenges posed by climate change in sectors like housing, communication, infrastructure, health, agriculture, livelihood, water, and sanitation. The private sector can bring innovative solutions and scale to the models for climate change adaptation and mitigation shaped by the government and Civil Society Organisations (CSO). PPP can allow large scale projects to go forward when public sector authorities might not be able to afford them. While the private sector can play a role in lining up new funds, shaping risk management mechanism and innovative technological solutions, the government can play a role as facilitator/regulator and earmark funds through national development schemes. CSOs can play major roles as mediators between the public sector, private sector, and communities. The private sector fears losing profit if they are held responsible for carbon dioxide emissions and similar gases. The other fear is that as regulations increase, the price of goods and services might also rise, and thus, may no longer be affordable to poor people. But, despite this concern, the potential of Public private partnership (PPP) may be wasted if profit is the main motivation for the private sector. Rather, combating climate change along with climate proofing of interventions and commitment to CSR must be a priority for businesses. At the policy level, there should be a clear

guidance on how the private sector might best adopt solutions that consider the environment, while also ensuring profit.”<sup>(22)</sup>

“There should be policies to attract private sector investment, some of the measures include

a) Ensure that effective policies exist. An integrated climate change and clean energy policy framework should include

- Short-, medium- and long-term greenhouse gas emission reduction objectives and targets.
- Comprehensive energy and climate change policies that accelerate the deployment of energy efficiency, cleaner energy, renewable energy, green buildings.
- Comprehensive policies directed at reducing greenhouse gas emissions from sources other than energy, for example waste, industrial emissions, deforestation and agriculture.
- Policies supporting investment in renewable energy generation, including measures that support the access for electricity generated from renewable energy sources.
- Financial incentives that shift the risk reward balance in favour of low-carbon assets. This includes strong and sustained price signals on carbon, well-designed carbon markets and other appropriate incentives to enable private investment in clean energy.
- Adaptation measures to reduce unavoidable climate impacts and Corporate disclosure of material climate change-related risks

B) Ensure that the policies are well designed. Experience with investing in renewable energy and energy efficiency suggests that investment-grade climate change and clean energy policy should:

- Provide appropriate incentives to invest. Specifically, policy needs to recognise that investing in areas such as renewable energy and energy efficiency is not risk free, and therefore needs to be designed to allow investors to make appropriate returns relative to the risks that they are taking and the costs, risks and returns of other investment opportunities.
- Recognize that scale is critical to addressing risk and enabling low-carbon investment opportunities to be more cost-effective relative to high-carbon opportunities. Scale allows unit costs to be reduced and allows expertise in the development and deployment of new technologies to be gained.
- Be transparent. That is, it should be clear how the policy is designed and implemented



C) Ensure the effectiveness of the institutions charged with implementing these policies. In particular, relevant regulatory or oversight bodies should have appropriate resources, and have the ability and authority to ensure that climate change and related energy policies are effectively implemented.”<sup>(23)</sup>

To attract private sector investment in climate change there should be effective policies that are well designed and ensure the effectiveness of the institutions charged with implementing these policies. In particular, relevant regulatory or oversight bodies should have appropriate resources, and have the ability and authority to ensure that climate change and related energy policies are effectively implemented. G20 should mandate green economic development so that it should be part of risk framework of Basel III. Public private finance model for climate change can promote Green economies and Global sustainability.

## **CHAPTER 7 - CLIMATE CHANGE FINANCING**

“There is a need to find ways of engaging new private investors, particularly institutional investors to help address the climate financing gap. To engage the private sector, expected returns on climate-related investment should be commensurate with the perceived level of risk. This is however often not the case and the private sector continue to face challenges in investing in the low carbon sector.”<sup>(21)</sup> “Despite the concerns, the potential of Public private partnership may be wasted if profit is the main motivation for the private sector. Rather, combating climate change along with climate proofing of interventions and commitment to CSR must be a priority for business.”<sup>(22)</sup>

Leverage is more often broadly applied to a set of instruments provided by a financial institution that encourage and catalyse other public and private investment by reducing investment risk or increasing project returns enough to attract private investors. A ratio of total private Foreign Direct Investment (FDI) flows to the net public guarantee coverage issued and ratio of the Net Present Value of the carbon finance unit to the overall capital investment needed for the project are some of the leverage ratios which are used in climate change financing.

## CLIMATE CHANGE FINANCING MODELS WILL CONTRIBUTE TO SUSTAINABLE DEVELOPMENT



Carbon Finance, Global environmental facility, clean technology fund, Feed in tariff and Infrastructure investments are some of the financing models for climate change financing. “The World Bank Carbon Finance Unit (CFU) uses money contributed by governments and companies in OECD (Organization for economic cooperation and development) countries to purchase project-based greenhouse gas emission reductions in developing countries and countries with economies in transition. Carbon finance provides a means of leveraging new private and public investment into projects that reduce greenhouse gas emissions, thereby mitigating climate change while contributing to sustainable development.”<sup>(24)</sup> The Global environment facility is today the largest funder of projects to improve the global environment which is supported by various UN bodies and World Bank. The Global Environmental Facility has in the past used the term leveraging to imply co-financing. Global Environmental Facility requires that co-finance from other public agencies is provided for Global Environmental Facility projects as it expands the resources available to finance environmental objectives.

“Some of the innovative financing mechanisms are as follows:

Clean Development Mechanism (CDM) is one of the flexible mechanisms following the Kyoto Protocol, which offers industrialized countries the possibility to engage in economically and environmentally competitive emission reduction projects in developing countries. The income stream from selling the creditable emission reductions from these projects have beneficial effect on the project’s financial structure.

Dealer-Credit Model involves an arrangement wherein the dealer is provided support through access to business financing and sells the Renewable Energy systems to the end user, which can be some times on credit.

In a Consumer Credit Model local finance institutions provide loans to users to buy the Renewable Energy system. The Renewable Energy enterprise in this case transacts on commercial basis with the users.

Supplier Credit Model is similar to equipment lease financing, as it involves financing provided by suppliers of goods and services to the project.

Energy Service Company Model (or Fee-for-Service model) the customers pay for the energy service that is provided to them by an energy service company (ESCO). It makes the energy affordable and minimizes the long-term risks for the customers as the ownership and maintenance of the equipment lies with the energy service company. <sup>“(25)</sup>

“Clean Technology Fund is one of the climate investment funds which provide developing countries with positive incentives to scale up the demonstration, deployment, and transfer of technologies with a high potential for long-term greenhouse gas emissions savings. Clean technology fund concessional financing focuses on large-scale, country-initiated projects in power sector, transport sector and energy efficiency. <sup>“(26)</sup> In particular, PPP are emerging as a successful business model within the clean technology to create scale and mobilize necessary funding. “Feed-In Tariffs are payments to ordinary energy users for the renewable energy they generate. The tariffs give three financial benefits such as Generation tariff, Export tariff and Energy Bill savings. <sup>“(27)</sup> In certain projects, World Bank Group does Infrastructure financing along with Public and private investors. This is more relevant in renewable energy projects which support infrastructure as solar or wind power. Climate Change Financing Models will contribute to Sustainable Development.

“In April 2010 a hydropower project supported by Asian Development Bank (ADB) and the governments of Austria and Japan that will enable Bhutan to export clean energy to India has been registered as the first cross-border initiative under the Clean Development Mechanism (CDM).”<sup>(28)</sup> “ In June 2012 Standard Bank Group supported a deal that led to the registration of the first Clean Development Mechanism (CDM) project in Ghana.”<sup>(29)</sup>

“Governments and sponsors are looking for innovative ways to finance this emerging clean energy sector. Various barriers for large scale low-carbon investments – small secondary debt market, absence of liquid, investment grade asset-backed securities. Bond financing makes up a small proportion of clean energy financing currently. Debt instruments issued to raise capital to fund specific clean power projects or projects aimed at reducing climate change risk. Investors range from pension funds with environmental mandates to socially responsible investment-focused retail investors. Green bonds pioneered by the World Bank in 2008 as part of its “Strategic Framework for Development and Climate Change. Its objective is to tap into large global pool of assets allocated to fixed-income investment held by pension fund as and sovereign wealth funds. Various bonds have since been issued by the World Bank in various currencies, and by others, including European Investment Bank, US Government agencies, International Finance Corporation and Asian Development Bank. The eligible projects for Green bonds include:

- a) Selected by World Bank environment specialists and meet specific criteria for low-carbon development.
- b) Promote the transition to low-carbon and climate resilient growth in the recipient country.
- c) Those projects which target mitigation and adaptation of climate change.”<sup>(30)</sup>

## CHAPTER 8 - SMALL AND MEDIUM ENTERPRISES

“As a central pillar of the world’s economy, Small and Medium Enterprises (SMEs) play a critical role in innovation, advancement and sustainable development worldwide. In today's increasingly globalized world, SMEs around the world have to unprecedentedly compete globally. They are both the most dynamic and the most vulnerable constituent in the global economy. The 21st century belongs to the SMEs.”<sup>(31)</sup>

The SMEs promise to combine economic efficiency and low import intensity with good job creation and positive effects on exports and income distribution. “SMEs are a nursery for large firms of the future, are the next step up for expanding micro enterprises.”<sup>(32)</sup> The small enterprises are innovative and adaptable, given the competition among them. Wherever SMEs were funded, the job market expands and all low-income workers eventually benefit. SME segment is one of the fastest growing segments and is rapidly gaining dominance in the overall macro-economic environment as well as for the banking sector. Countries can strengthen their competitiveness by strengthening their capabilities and develop policies and support programmes to strengthen productive capacity of small and medium-sized enterprises (SMEs) and upgrade them over time. SME Sector also contributes to creating of new employment, poverty eradication and develops new entrepreneurs. SME sector can also contribute to eco- friendly projects and thereby encourage green banking.

SMEs innovate in processes, products, and services and can sometimes innovate better than large firms. Small business has led the U.S. out of every recession. SMEs make up the backbone of British industry and will need to take advantage of the highly skilled graduates leaving university and looking for work. SMEs are the foundation of Japanese Industry.

SME is one of the fastest-growing sectors in GCC. SMEs contribute to over 60 per cent of the UAE’s GDP and provide around 86 per cent of the employment in the private sector. “The UAE cabinet has endorsed a federal law that aims to support and develop small and medium enterprises. The new law aims to encourage innovation, research and shift towards the knowledge economy, as well as strengthening the state’s competitiveness in business at the regional and international levels.”<sup>(33)</sup>



“Dubai SME, an agency under the Dubai Department of Economic Development (DED) mandated to develop the small and medium enterprise (SME) sector had launched SME 100. The Dubai SME100 will rank SMEs based on their performance across a set of financial and non-financial parameters and will now serve as a strong credential for enterprises to access new markets and funding for capacity building and expansion. “<sup>(34)</sup> The lending to SMEs averages about 2 per cent in the GCC countries and in UAE it ranges close to 4 percent.

Qatar’s small and medium- size enterprise sector constituting about 15% of the economy and a majority of the firms focused on the domestic economy. Fewer than 40% of the existing small and medium-size manufacturing enterprises were established after 2000. To support Qatar’s diversification SME development is necessary. A strong culture of private sector initiative is normally characterized by a robust layer of small and medium-size enterprises.

Enterprise Qatar, an early initiative linked to Qatar National Vision 2030, will provide a focal point for stimulating services for small and medium-size enterprises and support diversification. It’s programme will be performance based and will catalyse the delivery of services by private sector to small and medium-size enterprises through vouchers and targeted grants. Business skills development, marketing and other services would be supported. Enterprise Qatar will also share risks with the private sector, through guarantee support and equity participation.

In SMEs the economic and financial rates of return are good and the economic effects of lending have been positive. Leveraging scalable distribution channels such as Direct Sales and Branches are important for SME success. Customer needs and management approach are different for Small and Medium Business. Segmentation is the key to building differentiated approaches. Differentiation through positioning and packaging creates the USP. SME asset portfolios offer a better Risk-Reward structure than corporate portfolios. Developing Standardisation and Building Scalability is key to success of SME business. Efficiency in Sales, Distribution and Service Models is key to achieving scale and market share. Repayments rates depend partly on economic conditions, and on the borrowers’ incentives and willingness to repay. But repayments also depend on bank’s risk management. With Strengthened risk management mechanism, better quality client selection and better repayment records can be achieved. Qatar Development Bank has supported SME’s new and existing projects in different sectors. A Credit Guarantee program was introduced by Qatar Development Bank (QDB) to finance SMEs in Qatar. Doha Bank has provided Tatweer and Al Dhameen products to suit its SME customers.

Qatar Exchange (QE) - Venture Market will be dedicated to SMEs who will by definition have a minimal track record and a higher risk profile but companies nonetheless who are growing and need the access to capital that being listed entails. Being listed on the QE Venture Market will suit smaller entrepreneurial companies with a limited track record and also less resource to meet the heightened investor relations and corporate governance practices demanded of Main Market companies. Companies on the QE Venture Market will benefit from the same regulatory safeguards as that afforded to Main Market companies and will be readily identifiable as a separate and dedicated marketplace. Doha Bank also conducted a knowledge sharing session jointly with Qatar exchange to promote QE – Venture market.



Over time we can expect QE Venture Market companies to graduate to the Main Market as they grow and develop the necessary track record. QE Venture Market would be founded on strong domestic foundation where not only the issuers and investors come together at the heart of the financial community but one where importantly companies from around the MENA region will be able to attract the capital to take advantage of the many opportunities available to SMEs in the region.

## **CHAPTER 9 - CORPORATE GOVERNANCE**

This century witnessed some of the biggest scandals in corporate history beginning with Enron. Enron collapsed in Dec 2001 after the stock price sank to less than one dollar, from a peak of \$90. Fraudulent schemes of deceptive tricks and accounting misrepresentations, as well as off-the-book partnerships to manipulate Enron's finances made the company appear more profitable than it actually was. The founder Kenneth Lay was convicted on all six counts of corporate fraud and four counts of banking fraud. Enron caused a loss of \$70 billion from the capital market, \$2.1 billion in pension plans, 56000 jobs, and impacted market trust and the public image of the economy.

Lehman Brothers repeatedly exceeded its own risk limits, and its management made a number of poor decisions which ultimately led to Lehman's collapse. According to [cnn.money.com](http://cnn.money.com) in March 2010, Allen Stanford and his firm were accused of consistently providing higher-than-market returns on Certificate of Deposits (CDs) to its depositors. Regulators accused that defendants misrepresented the CDs as safe by claiming that such funds are invested in diversified liquid assets. In October 2009, the founder of the Galleon Group, a big New York hedge fund, was charged with insider trading in the stocks of several companies.

There are many issues that have contributed to the above corporate governance failures. Corporate greed is on the rise and there has been urgency for short term gains. There is a deliberate intention to hide, mislead, manipulate and cheat. There is a reluctance to take investors and regulators in confidence when things go wrong. Excess risk taking without the concurrence of owners and stake holders, has resulted in a lack of transparency, ethics and values.

In the current business environment, how do we check against these cancerous sicknesses? How do we increase the reliability of reporting? How do we increase investor confidence, consumer confidence and regulator confidence in the institutions? How do we increase transparency in our transactions?

The global financial crisis showcased weak corporate governance, a failure of risk management, and a supervisory failure. The current crisis has highlighted that boards should urgently be taking full responsibility for risks, which should be acknowledged and embraced by the boards of companies in all sectors of the economy. The current crisis has also revealed that the existence of non-executive directors on boards has proven to be an inadequate safeguard mainly on account of the fact that such non – executive directors lack expert knowledge to effectively challenge their executive colleagues.

Corporate structure and culture should focus on linking performance objectives and combining performance measures, and should have a consistent design and implementation across organisations. The current crisis has revealed that employees should not be rewarded for improper risk-taking actions, and the Board should ensure that compensation schemes reward a firm's long-term performance. Whilst such a compensation package may vary from one company to another, it is essential that Board of Directors define the rationale for their compensation schemes, and take into account the way compensation awards are viewed by the outside world. After all, compensation transparency is an important aspect of retaining legitimacy, as well as gaining the trust and confidence of stakeholders, regulators and the wider public.

Improved oversight over board compositions, improved disclosure and transparency, and the effective use of audit functions are today's priorities for regulators. Global capital flows increasingly avoid markets where information to investors is perceived as weak or not transparent. Institutions cannot afford to ignore the long-term, and focus only on the short term, as the long term is achievable only when it is sustainable. Green Initiative can also be brought as part of Corporate Governance by going paperless and sending documents to shareholders through electronic mode.

## CHAPTER 10 -GLOBAL SUSTAINABILITY

Economies need to integrate the principles of sustainable development into their policies and programs and reverse loss of environmental resources. This would also enable such economies to achieve the UN Millennium development goal of "Ensure environmental sustainability". Qatar's National Vision 2030 has also considered environment development as one of the pillars of its vision.

"Emerging from the global economic recession, investments in renewable energy technologies continued their steady rise in 2011, with total new investments in renewable power and fuels reaching \$257 billion, up from \$220 billion in 2010. Total renewable energy investments in industrial countries in 2011 accounted for 65 percent of global investment, increasing 21 percent to \$168 billion overall. The 35 percent of global new investment that went to developing countries increased 10 percent, to \$89 billion. Of that sum, China, India, and Brazil accounted for \$71 billion in total investment. Investment in India grew 62 percent---the highest growth rate for any single country over 2010. A major development in 2011 was the dominance of solar power in technology-specific investments. Bio-fuels held the second overall ranking in renewable energy technologies. China attracted \$52.2 billion in new investments in 2011, the largest sum of any country. In terms of the pace of growth, however, the United States scored an impressive 57 percent growth in investment over 2010 levels, outpacing all countries except India's 62 percent. Overall, the United States ranks second in total national renewable energy investment at \$50.8 billion, followed by Germany at \$31 billion."<sup>(35)</sup>

"Around 80 percent of the world's energy supply could be met by renewable energy by mid-century if backed by the right enabling public policies. With consistent climate and energy policy support, renewable energy sources can contribute substantially to human well-being by sustainably supplying energy and stabilizing the climate. It is not the availability of the resource, but the public policies that will either expand or constrain renewable energy development over the coming decades. Developing countries have an important stake in this future – this is where most of the 1.4 billion people without access to electricity live yet also where some of the best conditions exist for renewable energy deployment."<sup>(36)</sup>

"A steady increase in hydropower and the rapid expansion of wind and solar power has cemented the position of renewable energy as an indispensable part of the global energy mix by 2035. Renewables becomes the world's second-largest source of power generation by 2015 and, by 2035; they approach coal as the primary source of global electricity. The rapid increase in renewable energy is underpinned by falling technology costs, rising fossil-fuel prices and carbon pricing. Water needs for energy production are set to grow at twice the rate of energy demand. Water is growing in importance as a

criterion for assessing the viability of energy projects, as population and economic growth intensify competition for water resources.”<sup>(37)</sup>

## CREATE GREEN ECONOMY AND GLOBALISE CARBON TRADING TO BRING SUSTAINABILITY



The contribution of EU trade policy to environment includes liberalize environmental goods – services, seek global market for carbon trading, develop renewable energy, foster trade cooperation to improve energy efficiency and help reversing deforestation. The Sustainability Impact Assessments (SIAs) should look at the impact of each trade negotiation in the economic, social and environmental field. Environment will be part of the negotiations and thereby ensure substantial commitments.

The Sustainable Development component in new Free Trade Agreements (FTAs) could include:

- a) A sustainable development chapter, covering both its social and environmental dimensions.
- b) Specific trade liberalisation or trade related regulatory commitments that have a direct environmental benefit.

“The European Photovoltaic Industry Association (EPIA) said in its market outlook until 2016 which came in March 2012. “The world's solar power generating capacity will grow by between 200 and 400 percent over the next five years. The fastest Photovoltaic capacity growth is expected in China and India, followed by the Southeast Asia, Latin America, the Middle East and North Africa in the next five years.”

<sup>(38)</sup>

There are techno – economic limitations in harnessing alternatives. In solar power the limitation was the initial cost of purchasing and installing solar panels. Although subsidy programs, tax initiatives and rebate incentives are given by government to promote the use of solar panels it was not made for full



and efficient use of solar energy. Government and private Sector can actively work together on this. However in recent years the fall in price of photovoltaic cells has improved the penetration of panels and thereby also impacted the techno – economic variables.

The emerging trends reveal increased regulation driving sustainable practice in the finance sector. Oman Capital Markets authority (CMA) has communicated to all companies and investment funds to implement the social responsibility programme launched in 2009. CMA is giving great importance to social responsibility activities and it had earlier launched a national initiative in 2009 to bring in companies social activities under Oman Social responsibility programme. Since April 2013 it would be mandatory for all listed companies in London stock exchange to report carbon emissions. The Johannesburg Stock exchange has highlighted integrated reporting to include “Strategy, risk, performance and sustainability.

Corporate social responsibility is about creating long term shareholder value by embracing opportunities and managing risks derived from environment, social, governance issues and economic factors and many corporates face this. Financial institutions should look for financing the clean tech sector, financial services in microfinance and in carbon trading market. They should also assess and manage environmental and social risks. Financial institutions should strike a balance between support of economic factors and speculative operations. They should also report performance of CSR activities to stakeholders and develop strategic roadmap for sustainability objectives and reporting. Sustainable reporting would enable the business community’s understanding of sustainability’s strategic business case and benefits.

There are various green banking initiatives brought at the global forum which includes equator principles, UN Principles for Responsible Investment (UNPRI), UN Environment Programme (UNEP) Finance Initiative Statements and UN Global Compact (UNGC). Equator Principles define the set of voluntary standards that commit signatory banks to take social and environmental risks into account when providing project finance. UNPRI was developed by institutional investors that recognise the increasing relevance of environmental, social and corporate governance issues that apply to asset management. UNEP Finance Initiative Statements recognise the role of financial service sector in making global economies sustainable. This promotes investment in clean and renewable energy by financial institutions and other investors. UNGC are a set of voluntary principles under which signatories promise to avoid complicity to human rights violations, adhere to labour standards, and protect the environment. In Nov 2014 US and China made an announcement of their respective post-2020 actions on climate change. Such actions can give momentum into the global climate negotiations and inspire

other countries to join in coming forward with ambitious actions. The impact of future generations will also be considered in these actions.

At the G20 meeting in Nov 2014 US made a commitment of \$3bn towards Green climate fund and Japan pledged it would contribute \$US1.5bn to the climate fund. G20 agreed to a plan to reduce the gap between men and women in the workforce by 25% over the next 10 years. This has the potential to bring 100m women into the global workforce. G20 supported the initiatives to prevent, detect, report early and rapidly respond to infectious diseases like Ebola and make sure basic public health system prevails which allow for early warning when outbreaks of infectious disease occur. The G20 Food Security and Nutrition Framework will strengthen growth by lifting investment in food systems, raising productivity to expand food supply, and increasing incomes and quality jobs. G20 will support efforts in the United Nations to agree an ambitious post-2015 development agenda. On the whole the Global Governance has provided momentum to sustainable development.

## CHAPTER 11 - GCC SUSTAINABILITY

As a whole, GCC states control 45% of the world's oil reserves, and 18% of the world's natural gas reserves. The GCC has emerged as a role model for the transformation on economic and social fronts. The world's increasing energy demand has enabled the GCC states to generate a considerable fiscal surplus, thereby substantially improving the balance of payments position. Key policy initiatives have been instituted in order to diversify the predominantly oil-based economies and also to propel non-oil sectors. This has resulted in a massive infrastructural creation and industrial expansion. This multi-sector development has changed the face of the GCC. GCC as a bloc now has a unified stand on most of the key issues including the currency union, controlling inflation, management of liquidity, etc. Regular coordination and working towards common issues are making the GCC stronger day by day.

The GCC economies have a similar macro-economic composition and an increased degree of openness in investment, trade, and commerce policies. Capital has abounded with the modernization and creation of infrastructure. GCC economies have also been more resilient to the crisis due to measures taken by governments and regulators. The GDP per-capita is the highest amongst ranking countries. GCC economies have a huge fiscal surplus, investable surplus and current account surplus, due to hydrocarbon exports.

GCC Countries are among the highest in the world in carbon dioxide (CO<sub>2</sub>) emissions per capita. Although the majority of these emissions are attributed to hydrocarbon and energy intensive desalination plants, CO<sub>2</sub> emissions from the transport sector among the GCC States are some of the highest in the world. Hence it underlines the need for GCC economics to contribute to sustainable development through environment protection.

“Potential Sources of Renewable energy exists in GCC in Solar and wind. If the GCC countries allocate 0.5 per cent of their 2.5 million sq km area for the generation of solar power and assuming their equipment has an efficiency of 20 per cent, they can generate enough power for the year. As for wind energy, the average wind velocity in the Gulf is around seven meters per second at 80 meters high. This speed is very suitable to operate windmills economically. As a result, a windmill with a 10-metre diameter and 35 per cent efficiency rate can produce around 24 kw of electricity in the region.”<sup>(39)</sup> The Clean energy drivers in GCC include demand from power sector, potential in solar and wind energy, strong infrastructure development and encouragement from Government.

“ In 2013 Saudi Arabia, the world's leading oil producer has completed its biggest solar power plant, 3.5MW photovoltaic plant in Saudi Arabia. “<sup>(40)</sup> “The ambitious \$19 billion Masdar City is set to be completed between 2020 and 2025.”<sup>(41)</sup>

“Three companies, France's Total S.A., Spain's Abengoa S.A., and Abu Dhabi-based Masdar obtained a US\$600 bank loan to build the plant, named Shams 1, solar power financing project which will have a 100-megawatt capacity and would qualify for carbon credits under the United Nation's Clean Development Mechanism (CDM).”<sup>(42)</sup>

Chevron launched Chevron's Centre for Sustainable Energy Efficiency (CSEE) at Qatar Science & Technology Park as a part of Research on latest energy efficiency and solar technologies. “In April 2011 the U.S. Department of Energy (DOE) and the Qatar Science & Technology Park (QSTP) have signed a MOU for clean energy technologies. “<sup>(43)</sup> “Solar parking project will be established at the upcoming Solar Test Facility, a Chevron Qatar-Green Gulf initiative at Qatar Science & Technology Park. “<sup>(44)</sup>

“In May 2012 Qatar Solar Technologies has signed agreement with the Qatar Electricity & Water Company (QEWC) to explore the possibilities of developing power generation using solar energy in Qatar. Qatar solar technologies \$1bn polysilicon manufacturing plant, located in RasLaffan, will initially produce 8,000 metric tonnes per year of polysilicon. “<sup>(45)</sup>

The State of Qatar supports the efforts of the United Nations Millennium goals, the ongoing negotiations under the UNFCCC. The 18th session of the Conference of the Parties (COP 18) to the UNFCCC was held in Doha, Qatar. The conference had come out with the “Doha Climate Gateway” which pushed forward the solutions to climate change. The conference has come out with “Doha Climate Gateway” which will push forward the solutions to climate change.

## **Doha Bank at COP 18**





The Kyoto Protocol has been amended so that it will continue as of 1 January 2013 and the Kyoto Protocol's Market Mechanisms such as the Clean Development Mechanism (CDM), Joint Implementation (JI) and International Emissions Trading (IET) can continue as of 2013. They have looked at various ways which ensure the effectiveness and environmental integrity of projects under the Kyoto Protocol's Clean Development Mechanism that capture and store carbon emissions. Technology and funding play a key role in climate Change. Developed countries have reiterated their commitment on promises on long-term climate finance support to developing nations, with a view to mobilise 100 billion USD by 2020.



“The GCC states had a wakeup call on global food price crisis during 2007-2008. Rising oil prices, increasing demand for biofuels, and trade restrictions drove up food prices. GCC states realise they had no consistent policy or strategy to secure their food supply, either in the short or the long term. GCC states had never had an important domestic agricultural industry to begin with. Their import dependency ranges between 27-83% for vegetables, 55-80% for meat and 96-100% for cereals. GCC is classified by the UN Food and Agriculture Organisation as suffering from absolute water scarcity. The GCC states are drawing water several times over their natural replenishment rates. As a result, water reserves are becoming saline and depleted. Agriculture, which generally uses groundwater, uses a lion's share of total conventional water use.”<sup>(46)</sup>

“In December 2012 GCC countries agreed to establish companies that would work to achieve food security in the region, in light of unstable global food markets and limited agricultural lands and water resources. GCC also agreed to draft a unified strategy for cooperation with other Arab countries that have agricultural land, including Sudan, Morocco and Yemen, as well as with African countries. They plan to use state-of-the-art solar technologies to produce sufficient desalinated water to grow certain crops in the region.”<sup>(47)</sup>

## CHAPTER 12 - HUMAN RESOURCES

Doha Bank recognises that Human Resources play a critical role in sustainable development. Some of the initiatives taken by Doha Bank in this direction include

- a) Team Work Culture Set by Top Management which significantly contributes to Bank's success in its mission.
- b) Open Communication and Open Door Policy –Staff from all grades can approach the Executive Management at any given time to discuss their grievances or their initiatives.
- c) Rewards and recognition purely on performance. Monthly rewards are given for initiatives and to the best department.
- d) Diversified working culture with more than 20 nationalities.
- e) Structured meetings to discuss the business requirements held by staff
- f) Self-development opportunities via cross posting.
- g) Maintaining happy working environment by organising annual sports events, get together, outings and Fun Run.
- h) Cross Border Banking opportunities and knowledge sharing.
- i) Clearly defined policies and procedures for the staff.
- j) Change and Transformation working culture.
- k) The bank as a policy highly believes and practice reward for high performance.

Doha Bank has brought various measures for employees to make them feel valued. Employees get the opportunity of Knowledge sharing as part of Doha Bank's learning culture. Employees across organisation actively participate in corporate brand management exercises. Highly connected system for staff communication.

Doha Bank has brought best performance management techniques to evaluate its employees. Accountabilities and Smart Objectives are set at the beginning of the year. Employee Performance is measured periodically. Employee Performance is measured under 3 categories and weightage are given separately, with a view of evaluating the overall contribution of the staff a) Achievement of objectives, b) Initiatives and Value Additions) Personnel Attributes. Performance Bonus and Variable Bonus scheme have been directly linked to the performance appraisal management system. Doha Bank strongly believes and practices forced ranking methodology in the Performance management. Accomplishment of objectives and value additions will be measured providing points and the total points will decide the

final rating of the individual staff. Every year the Bank participates in Salary Survey exercise and benchmark competitive compensation and benefits against the local and GCC markets.

Significant measures have been brought by Doha Bank on employee and career development. Some of them include Cross Posting in overseas, Job Rotation within Doha, Assigning projects to the staff in addition to their current job responsibilities time to time and e- learning. General Training such as Leadership and Change Management Concept are covered by external resource personnel in every 6 months. Senior Management is given regular opportunities, visits and participate business related Conferences/Seminars/Industrial Visit. Structured Management development programme for Qataris where graduates are recruited under this programme and deploy them in various business functional under study business and the management. Succession planning is important area for sustainable development. Doha Bank has cultivated the culture to recruit Qatari staff in all areas of operations against each and every expat role. Overall performance of local talent will be measured through common performance management system in the bank.

## **CHAPTER 13 - FINDINGS, INFERENCES, SUMMARY, CONTRIBUTION TO KNOWLEDGE AND WAY FORWARD**

Climate change is a global challenge which requires an ambitious global response and a green economy will protect the planet from the worst effects of climate change. Hence it is necessary that we contribute to the development of Green Economy. Green economy is mainly based on sectors such as renewable energy, green buildings, clean transportation, water management, waste management and land management. Hence Green economies are the solutions for global sustainability.

The Banking environment operates within the global standards of lending or investing and such standards have been revised after the Global financial crisis both in terms of liquidity and capital adequacy. The going –concern and gone concern capital has been redefined and suitable buffers have also been developed taking into consideration the liquidity and systematic issues. However in addition to above Banks as socially responsible citizens have a role to play on protecting environment and contribute to sustainable development. Hence every Bank should earmark minimum 10% of Tier 1 capital subject to a cap of 10% of risk weighted capital towards Green banking or Clean development mechanism or any Sustainable development projects taking into consideration the carbon emissions prevailing in the economy in which the bank operates. The initiatives may be in the form of lending or investing. This forms the basis for Green banking and brings prudence into the capital framework. The Clean Development Mechanism (CDM) allows developed countries, or companies within those countries, to invest in projects that either reduce greenhouse gas emissions or sequester carbon in forests in developing countries. Some of the Clean Development mechanism projects include renewable energy: wind farms, hydroelectric power, reducing emissions in industrial and manufacturing processes and sequestering carbon through afforestation and reforestation. Green Banking enables bank to perform environmental due diligence before lending or investment, reduce carbon foot print and create awareness amongst the stakeholders about environmental and social responsibility enabling them to adopt environmentally friendly business practices. Green banking will play a crucial role in promoting Green economies and hence Green Banking encourages Green economies and thereby mitigates climate change.

To attract private sector investment in climate change there should be effective policies that are well designed and ensure the effectiveness of the institutions charged with implementing these policies. In particular, relevant regulatory or oversight bodies should have appropriate resources, and have the ability and authority to ensure that climate change and related energy policies are effectively implemented. Private Sector can also participate in climate change through innovative financing mechanism. G20 should mandate green economic development so that it should be part of risk framework of Basel III. Public private finance model for climate change can promote Green economies and Global sustainability.

The volatility in food prices are expected to prevail which is a challenge for food security, also affected by climate change. Hence we can no longer look at food security, poverty and climate change separately. Climate-Smart Agriculture is a driver for green growth and to address challenge of food security. Hence Climate change mitigation is necessary to address Food Security Challenges.

The SMEs promise to combine economic efficiency and low import intensity with good job creation and positive effects on exports and income distribution. SMEs are a nursery for large firms of the future, are the next step up for expanding micro enterprises. The small enterprises are innovative and adaptable, given the competition among them. Wherever SMEs were funded, the job market expands and all low-income workers eventually benefit. SME Sector contributes to creating of new employment, poverty eradication and develop new entrepreneurs. SME sector can also contribute to eco- friendly projects and thereby encourage green banking. Hence SME sector is critical for sustainable development of economies.

There are various green banking initiatives brought at the global forum which includes equator principles, UN Principles for Responsible Investment (UNPRI), UN Environment Programme (UNEP) Finance Initiative Statements and UN Global Compact (UNGC). Equator Principles define the set of voluntary standards that commit signatory banks to take social and environmental risks into account when providing project finance. UNPRI was developed by institutional investors that recognise the increasing relevance of environmental, social and corporate governance issues that apply to asset management. UNEP Finance Initiative Statements recognise the role of financial service sector in making global economies sustainable. This promotes investment in clean and renewable energy by financial institutions and other investors. UNGC are a set of voluntary principles under which signatories promise to avoid complicity to human rights violations, adhere to labour standards, and protect the environment.

In Nov 2014 US and China made an announcement of their respective post-2020 actions on climate change. Such actions can give momentum into the global climate negotiations and inspire other countries to join in coming forward with ambitious actions. The impact of future generations will also be considered in these actions. GCC economies have also brought various measures in relation to Climate change in recent years. G20 will support efforts in the United Nations to agree an ambitious post-2015 development agenda and has also agreed on various measures in relation to sustainable development in its November 2014 meeting. The Global Governance through G20 has given momentum to sustainable development.



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