UNLOCKING THE POTENTIAL: INVESTING IN THE FUTURE OF THE MUSLIM WORLD

A World Islamic Economic Forum
Special Commemorative Publication 2009

WIEF
WORLD ISLAMIC ECONOMIC FORUM
FOUNDATION

The future belongs to those who prepare for it today.

Malcolm X (1925 - 1965)

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Contents

07
CHAIRMAN'S FOREWORD
Tun Musa Hitam
Chairman of WIEF Foundation

09
SPECIAL MESSAGE
Susilo Bambang Yudhoyono
President of Indonesia

11
INTRODUCTION
Small Change, Big Difference
Fazil Irwan Mohd Som
Director of Editorial and Business Development of WIEF Foundation

15
Our Future is Now
Dato' Johan Raslan
Executive Chairman of PricewaterhouseCoopers Malaysia

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25

CHAPTER ONE:

The World in the Wake of the Financial Crisis

26
What Went Wrong: A Retrospective Analysis of the "Power of Yes" Credit Structure

A Rushdi. Siddiqui
Former Global Director
Dow Jones Islamic Indexes

36
Banking on Integrity: The Prospects of Islamic Finance in a Diverse World

Rafe Haneef
Managing Director of
Fajr Capital

45

CHAPTER TWO:

Stability in Food and Energy

46
The Food Crisis: Identifying the Cause, Rectifying the Present, Hope for the Future

Jacques Diouf
Director General of Food and Agriculture Organization of the United Nations (FAO)

54
The Rise in Biofuel: The Sime Darby Experience

Dato' Seri Ahmad Zubir Haji Murshid
President & Group Chief Executive of Sime Darby Berhad

60
The War Against Hunger: Building an Efficient Food System

Joachim von Braun
Director General of International Food Policy Research Institute

69

CHAPTER THREE:

Tackling a Thirsty World

70
Blue is the New Green: A Demand-Side Proposal on Water

Dr. Mahmoud Abu-Zeid
President of the Arab Water Council & Minister of Water Resources and Irrigation, Egypt

74
Water: A Market of the Future

SAM Sustainable Asset Management AG & PricewaterhouseCoopers

85

ACKNOWLEDGEMENTS

89

ADVERTORIAL

CHAIRMAN'S FOREWORD

Welcome to the 5th World Islamic Economic Forum in the capital city of Jakarta, Republic of Indonesia. It is indeed a great honour to be able to convene our fifth global forum in this remarkable country. This year's forum bearing the theme of "Food and energy security & stemming the tide of the global financial crisis" seeks to address some of the most important issues confronting the Muslim world at present. Issues such as the global financial crisis, food and energy security, the role of SMEs in development, the prospects of green technology and its job growth trajectory are among the pertinent subjects that will be discussed. Some of these issues will also be showcased here in this book to highlight their importance.

The Muslim world is confronting one of the most challenging times in history when the global financial system that provides the backbone to the world's various economies are showing signs of collapse. We are also confronting a possible food crisis when food production in the Muslim world is at an all-time low, rendering food prices to be extremely susceptible to changes in global prices, such as that in the price of oil, which led to a devastating impact on the lives of millions. This is compounded by the fact that many Muslim countries are relying heavily on food imports. Energy stability and the imperative of a more efficient water management system are equally important issues that the Muslim world, the Muslim governments in particular, need to tackle seriously.

I hope that with the rich and thoughtful articles contained in this book, the reader can better understand the intricacies of the problems surrounding us and would be able to act accordingly to address it. I also hope that the book can contribute to a richer discussion of the topics mooted at this 5th WIEF in Jakarta. I wish the participants of the Forum a great networking and enlightening session. And last but certainly not least, I would like to thank the government of the Republic of Indonesia, the Indonesian national organizing committee and the Indonesian people for sharing our dream and giving us support to make this Forum an astounding success.

Tun Musa Hitam
Chairman
WIEF Foundation

SPECIAL MESSAGE

The significant feeling of proximity between people and nations is the reality of our globalized world. Our challenges have also become global. The destinies of nations have become deeply intertwined and interconnected. No matter where in the world we live, we are touched by the successes and failures of today's global economy, politics, and social issues. Islamic countries around the world are as influenced by these global challenges and crises as the rest of the world today.

As Indonesia - the fourth most populous country and home to the world's largest Muslim community - continues its ongoing efforts for global collaboration, it is with great honor to host the 5th World Islamic Economic Forum this year in Jakarta, Indonesia. Special thanks to the World Islamic Economic Forum Foundation to allow us this honor and for all the outstanding efforts and support to assist us in organizing this event.

It is hoped that the Forum will serve as a platform for global dialogue on pressing economic, food and energy security, and environmental challenges that confront the Muslim countries as well as for the non-Muslim countries participants. Like all global challenges, it will take the collaborative effort of all global stakeholders from government, business, academe, media and society to pre-empt or stabilize any crisis, create alliances and find solutions.

Touching on all these issues, through the lens of the prominent authors in this book, it is also hoped the remarkably informative articles from varying perspectives will contribute to reinforce the understanding of the topics addressed at the Forum.

On a final note, on behalf of the Indonesian government and people, I wish all our esteemed and distinguished guests a pleasurable and memorable stay with us during this outstanding and momentous event.

Susilo Bambang Yudhoyono
President of the Republic of Indonesia
Patron of 5th World Islamic Economic Forum
Honorary Fellow of WIEF Foundation


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INTRODUCTION

Fazil Irwan Mohd Som
Director of Editorial and Business Development
WIEF Foundation

Small Change, Big Difference

"Just as a single sick person can start an epidemic of the flu, so too can a small but precisely targeted push cause a fashion trend, the popularity of a new product, or a drop in the crime rate"

Malcolm Gladwell
The Tipping Point, 2000

Little things can make a difference. As reflected in Malcom's quote, it takes one person to spur a series of small-scale events that can radically change people's fate, the community's wellbeing, or the success of nations. One single person is all it takes to play a pivotal role in changing the lives of millions of people.

This year's WIEF Special Commemorative Publication is a reflection of an idea. An idea that if we all work together in our own individual capacity towards a single common cause, regardless of how small the scale of such an activity, can have the potential of creating a powerful and positive impact on people and communities. This is an idea that highlights the importance of assertiveness and capitalising on opportunities right at our doorstep.

At present, we face several of these opportunities at our doorstep. They come in the form of the global financial crisis, the food production crisis, the energy security impasse, and the scarcity of potable water, all of which are covered in the chapters of this book, albeit in varying depths and perspectives. The authors of this book, in their own unique way, seek to bring to our attention these important events and to accordingly paint a better picture of how the world might look like given a set of prescribed measures.

The lessons from the global financial crisis teach us the value of financial accountability and the sound evaluation of credit risks.

Islamic finance is therefore poised to be a credible alternative to the current financial system if steps are taken to push it to the fore, particularly in terms of creating awareness and creating more innovative financial products that can substitute its conventional counterparts. It is therefore timely for all practitioners, policy-makers and stakeholders to step up effort in their own respective areas to make Islamic finance a mainstream practice.

The food crisis provides us with another door of opportunity. At present, despite an overall food surplus taking into account food production of each and every national economy on the globe, many of the world's poor are still gravely malnourished. The UN Food and Agriculture Organization (FAO) stated that the number of malnourished people actually increased from 842 million in 1990 to 963 million in 2008.

By any standards, that is an alarming figure especially when logistics technology and coordination would have improved throughout the same time period. And this is more of a cause of concern because a major chunk of the abject poor are people of the Muslim world. As a result, the governments of several Muslim countries are starting to look into food as the next major issue and have taken appropriate steps to boost production capacity. The national food policies of Kuwait, Qatar and Bahrain are pertinent cases in hand. But there are still more to be done especially by the private sectors of the Muslim world.

For a start, investment in agricultural science and technology and rural development is way below satisfactory levels. This may be a good opportunity for the private sector since investments into these areas would increase efficiency of food production by multiples. Thus with huge financial backing from the key Gulf States, food security can indeed be a viable business venture.

The same applies to investments in various energy sources especially those that are environmentally friendly. Still more needs to be done in terms of building capacity and creating jobs to support these 'green' industries. And there is ample opportunity for the governments as well as the private sector in these areas. Water is another crucial opportunity for the Muslim world. As it is now, the availability of adequate drinking water in most parts of the Muslim world is a cause for concern as it has a direct correlation to malnourishment, food scarcity and ultimately human capital development. In some cases, water scarcity can lead to large-scale humanitarian conflicts as in the case of the Sahel Belt. This therefore provides a huge opportunity for the private sector in several critical areas of water management.

As the PricewaterhouseCoopers study indicated, there are 4 promising opportunities up for grabs for the private sector. There is the distribution and management sector, where companies can pursue the development of systems to supply fresh water and offer solutions for upgrading water mains and sewer infrastructure. Companies can also venture into advanced water treatment which involves disinfection of drinking water, the treatment of wastewater or the desalination of sea water. The third sector is the demand-side efficiency where companies can offer products and services to boost efficiency of water use in households or industry. The final sector is the water and food production sector where companies may pursue the development of products that improve water efficiency and reduce the pollution in crop irrigation and food production.

All these events and opportunities point to the plain fact that there are so many opportunities that remain unrealized. The onus is therefore upon every capable entrepreneur in the Muslim world to pick up a piece of the jigsaw puzzle and put it in its place to complete the bigger picture. For only when each individual plays his/her role in contributing to the betterment of society, can there be real changes in that direction. Little things do make a difference. We have to start somewhere.

Our future is now

Dato' Johan Raslan
Executive Chairman
PricewaterhouseCoopers Malaysia

Our future is now

Daily, we face a barrage of news of distressed economies caused by the near collapse of key financial markets, extreme volatilities in oil and gas prices reflecting demand/supply mismatches, global saving and spending imbalances, and severe climate change complications - all symptoms of a world in calamity. To say we live in troubled times is an understatement.

However, while many of us struggle to come to terms with the economic storm that grips us, how many of us recognise the fragility of our world? We face the unprecedented challenge of three crises at once - climate change, an energy shortage and the financial downturn - which directly and indirectly impacts business performance. In the wider scheme of things, this means our world's sustainability.

Climate change crisis

Growing water scarcity

- By 2025, 1.8 billion people face absolute water scarcity
- By 2010, an estimated 300,000 deaths annually from climate-related diseases

Significant reduction in bio-diversity

- By 2050, 200 million people may become permanently displaced
- By 2100, up to 40% of species face extinction and more than 16,000 species are threatened

Energy crisis

Looming oil and gas scarcity

- Production of conventional oil is projected to peak around 2030
- Non-OPEC conventional oil production already at plateau and projected to decline around 2015

Serious mismatch between supply and demand

- Without energy efficiency, demand would exceed 120% of supply by 2030
- Most global energy investments planned for 2007-2030 are just to maintain current supply

Financial crisis

Near collapse of financial markets

- Sharp falls in stock markets across global markets, from New York to Tokyo, with average equity market losses of 44%

Severe credit crunch

- Frozen credit markets saw interest rate slashes worldwide with US rates reduced to nearly zero since mid-December 2008 and this trend is expected to persist

Rising unemployment

- Projected 18-50 million job cuts worldwide by end 2009

The forest for the trees

> "We might be remembered as the generation that saved the banks and let the biosphere collapse."
>
> George Monbiot,
> Journalist, columnist &
> environmental activist

In the face of adversity, business leaders should refrain from an over-focus on short-term earnings at the expense of long-term value creation and security. Otherwise known as short-termism, this is perhaps one of the main culprits of the current economic turmoil. As one-time US Vice President and Nobel Peace Prize winner, Al Gore, said, "The investment marketplace worldwide is under a strange spell. Short-termism has led to a distortion of values and priorities and a seemingly endless string of bad decisions".

Many of us could hardly be faulted for making our business' health our top - and only - priority in the current environment. But short-sighted behaviour will work against us.

The danger in short-termism is in its appeal - that is, the promise of immediate profits for those who are able to make the most of the moment. It is the very thing that got us into the economic turmoil we now face that could plunge us into even greater despair. Leaders who forsake long-term and sustainable development do so at their own peril, and that of everyone who depends on them. In fact, we should begin measuring our success in decades, not quarters.

Recognising the flaws of short-termism

In the US, which faces its worst recession since World War II, President Barack Obama recently[1] proposed an economic-stimulus package that included as much as USD25 billion in energy tax credits for renewable-energy production (doubling his previous proposal). Despite the enormity of the poverty and debt issues on his plate, this President recognises the urgency of addressing longer-term environmental issues to ensure America survives.

1 This proposal was announced the week of 11 Jan 2009. At the time of print, this was still true, however, there may have been developments in Obama's economic stimulus package developments since.

At the heart of it

What is the sustainability agenda?

The sustainability agenda begins with making a commitment to incorporating social, environmental, economic and ethical factors into a company's strategic decision-making. It extends to evaluating how these factors affect the business - including all of its stakeholders - and what risks and opportunities these factors present.

Finally, the sustainability agenda asks businesses to adopt measures to mitigate risks and take advantage of opportunities.

"The sustainability agenda: Industry perspectives*", PricewaterhouseCoopers, 2008

Many of us acknowledge and understand the argument for embedding sustainability thinking into the way we do business. The question - a daunting one in spite of its brevity - is, how?

The fact is, sustainability issues pose a myriad set of challenges and individual business sectors require unique solutions. How do we as a business community - so varied in our industries, in where we come from and where we're headed to - find a common resolution that we can work together on?

At a recent World Business Council for Sustainable Development (WBCSD) workshop[2] in Malaysia, I was heartened to hear the participants agree that the answer to this lies simply in people. At the heart of our sustainability woes, the group agreed, it is the values and actions of those in leadership roles and their people, that can make or break the sustainability cause.

2 The WBCSD workshop, titled "Vision 2050: An Asian perspective", involved Corporate Responsibility/ Sustainability champions from over 20 Malaysian corporates, non-profit organisations and regulators. It sought to gain their insight into Vision 2050 - a project which looks at the challenges, changes and solution sets for ensuring a sustainable world by 2050.

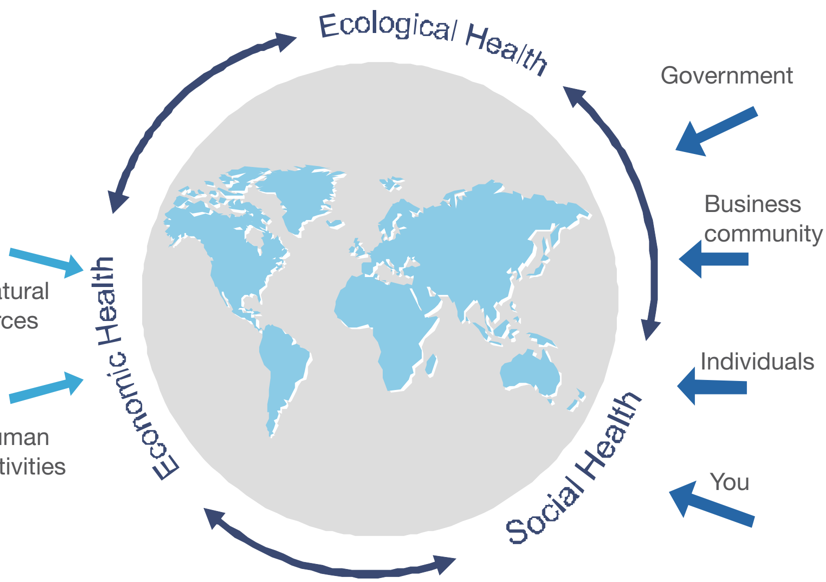
Responsible and sustainable vision - your baseline

The leader's role is crucial. Leaders set the tone for how businesses achieve success - and the methods they employ to get to where they want to be. Those who inspire their people with a vision founded on sustainability and responsible behaviour will ensure that these values become a part of their organisations.

At this point in our history (and here I am talking about the history of the capitalist enterprise), perhaps it is time we returned to the basics - old-fashioned values like integrity, accountability and transparency. Late last year, at the 5th Conference on Ethics in Business: Corporate Culture & Spirituality at the European Parliament, Brussels, a diverse group of leaders agreed that corporate ethics is the answer to the economic crisis: "We are at a turning point. This is the time when the world decides if ethics will simply disappear in the battle for survival, or if it will become the foundation on which we build our future," said Nirj Deva, a British Member of European Parliament and Chair of the conference's advisory committee.

Leaders must recognise that their business activities impact the environment, community, people and marketplace within which they operate: the business world and the "real" world are intertwined, and actions on either side impact the other.

Figure 2: Stakeholders in an interconnected world



Role of business and government in achieving sustainability:

- Leadership
- Collaboration
- Innovation
- Corporate and social responsibility

Source: PricewaterhouseCoopers

Collaboration - your strategic link

Ours is an interconnected and borderless world where geographical and societal lines are fast disappearing. Businesses which embark upon strategic collaborations are finding that new doors open up to them. Yet, exploring new relationships and territories may seem risky to some. After all, change never comes easy. Fortunately, according to PwC's 12th Annual Global CEO Survey, 2009, more CEOs plan for cross-border joint ventures than mergers & acquisitions this year (44%), as compared to last year (30%), which is an indication of even higher levels of collaboration in years to come.

Businesses are also in a unique position. On the one hand, they have the ability and relationships necessary to influence - or at the very least, lobby - governments. On the other, they have a direct ear to the demands and concerns of the ordinary people.

Businesses play a pivotal role in the lives of their people - the 'caring' employer provides a wider range of employee benefits than before. Organisations in this day and age can impact their employees (and employees' families') health, welfare, education and retirement. They have a great influence on the world's citizens in general, sometimes, even more so than governments do.

"CEOs believe that a unique window of time is now open. Governments and businesses have an opportunity to coordinate globally… to address global crises."

PwC's 12th Annual Global CEO Survey, 2009

Collaborative winning examples

Co-opetition (US pharmaceutical industry):

The cost of developing a new drug is exorbitant while only a third of new medications actually make it to market. Big pharmaceutical companies, like Proctor & Gamble (P&G), often work collaboratively to share risk. A decade ago, P&G started a programme to evaluate the thousands of innovations emerging every year from academia, biotech labs and pharmaceutical companies. Today, P&G reports that its R&D return on investment has improved by 60%, and nearly 35% of the company's new products have elements that originated from outside the company.[3]

Public-private partnerships:

Coca-Cola has gone into partnership with the World Wildlife Fund in Asia to address the shortage of drinking water in one of their biggest emerging markets. Such a move makes good branding sense and has a positive impact on the communities within which they operate.[4]

3 Andy McClenaghan, "P&G strategy: Connect and develop: Procter & Gamble sees C + D as a strategic evolution from the more traditional R&D and grows through collaborative partnerships," The Gazette (Montreal), October 9, 2006.

4 "American Perspectives Managing the way we live and work now and in the future," PricewaterhouseCoopers, 2008.

People – your talent pool

At the recently concluded World Economic Forum in Davos this year, it was predicted that 50 million people could lose their jobs by the end of 2009. Unfortunately, organisations will also continue to grapple with the talent war - 97% of CEOs believe that the access to and retention of key talent is critical or important to sustaining their growth but 69% feel there is still a limited supply of candidates with the right skills[5].

Many of us are or will be caught in a difficult balancing act in these trying times - struggling to reduce costs (job cuts being a tried and proven method) while supporting key talent and increasing productivity. Obviously, any cost reduction exercise needs to be carried out with a full understanding of the impact it will have on the organisation (and inevitably, the country's economy).

The risk of not having the right talent in place is obvious: any strategies, partnerships or visions developed amount to nothing without our people. And in the current environment, this risk is exacerbated. Now is the time for organisations to relook the way they profile and interpret or use information about their people. Leaders need to remember that their people aren't just numbers but are the means to which they can ensure their business' survival.

Diversity leads to excellence

One last point, but a crucial one. The business world is increasingly coming to the realisation that a diverse organisation is better than one made up of a single 'type' of person. Within organisations, teams (including and especially leadership teams and boards of directors) perform better when they are diverse. Here, I am talking about all types of diversity: ethnic, religious, educational and, of course, gender.

According to a recent McKinsey study, "...companies where women are most strongly respresented at board or top-management level are also the companies that perform best."[6] With the business case for women more compelling than ever, companies are rushing to diversify. In some cases it is cosmetic, in others it is to beat competition. But the fact remains, that a diverse set of people can be that crucial element to long-term success.

5 "12th Annual Global CEO Survey", PricewaterhouseCoopers, 2009

6 Georges Desvaux, Sandrine Devillard-Hoellinger, and Pascal Baumgarten,"Women Matter", McKinsey & Company, 2007.

Make or break - the future is ours

A sustainable world is a future all of us have a stake in. However, it is a future we cannot wait to attend to. Time is no longer just of the essence - it is a luxury we cannot afford.

Business leaders have an important responsibility to their shareholders. Great business leaders know their role is to leave behind a better world.

Figure 3: Triple crises call for urgent, smart and bold responses

Source: PricewaterhouseCoopers

Profile

Dato' Johan Raslan
Executive Chairman
PricewaterhouseCoopers Malaysia

Dato' Johan Raslan is the Executive Chairman of PricewaterhouseCoopers Malaysia. He is a regular speaker on corporate governance, corporate reporting and corporate responsibility at local and international forums.

Johan is chairman of the Financial Reporting Foundation (FRF), an appointment by the Minister of Finance. The FRF oversees the work of the Malaysian Accounting Standards Board. He also chairs the Institute of Corporate Responsibility, Malaysia, a network of companies committed to advancing responsible business practices.

He is also a Board member and Audit Committee Chairman of Putrajaya Corporation, a member of the International Advisory Panel of the Labuan Offshore Financial Services Authority (LOFSA), a member of the Board of Kuala Lumpur Business Club and a member of the Board of Trustees of Tun Suffian Foundation.

An Eisenhower Fellow, he is Adjunct Professor of University Malaya, a Council Member of the Malaysian Institute of Accountants, Vice-President of Malaysian Institute of Certified Public Accountants and a member of the Institute of Chartered Accountants in England and Wales.

CHAPTER ONE:

The World in the Wake of the Financial Crisis

What Went Wrong:
A Retrospective Analysis of the “Power of Yes” Credit Structure

A Rushdi. Siddiqui
Former Global Director
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Banking on Integrity:
The Prospects of Islamic Finance in a Diverse World

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What Went Wrong:

A Retrospective Analysis of the "Power of Yes" Credit Structure

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Former Global Director
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The Public Policy: Home Ownership

The captains of capitalism, operating in the 'financially engineered, leveraged enhanced, speculative, yield hungry, regulators sleeping, 'wild west' environment,' perpetrated the largest self enriching/icon institution destroying scam in the world, the subprime originate-distribute mortgage cum toxic asset class, at the expense of the 'man on the street!' In today's age of instant communication, alleged 'best of breed regulation and transparent governance,' how is it possible that trillions of US dollars of wealth evaporated 'over-night,' established mega-capitalized blue chip companies bailed out via nationalization, and (the allegedly non-existent) decoupling carried the crisis from US shores to the developed and emerging markets?

More importantly, as the present day 400 year old, G-20 led conventional capitalist system is undertaking self-introspection to see 'what, where and how,' it all went wrong, the important question is- can a 40 year financial system provide some guidelines for a new age financial system based on 'ethical' financing of tangible and usufruct real assets and 'ethical' aligned and structured investments.

It is an admirable public policy to provide an infrastructure to encourage home ownership for a country's population, as the building of a house has a positive multiplier effect on the local economy. It is also admirable to allow/encourage financial institutions to offer novel/exotic alternative asset classes that support home ownership. However, in allowing for a defective 'originator-distributor' model of financing and investing, it, the private-public partnership, also eventually exposed the shortcoming of the model, and the incompetence and greed of the chain of stakeholders.

In order for the '(wo)man on the street' to better understand the sub-prime cum credit crisis in everyday language, lets look at the errors of commissions and omissions of the stakeholders of the perfect financial storm that brought the financial palace in the sky down, and how the screening of a system called Islamic finance & banking is approaching the 'originator-distributor' model of financing (mortgages) and investing (securitization and sukuks).

"How is it possible that trillions of US dollars of wealth evaporated 'over-night,' established mega-capitalized blue chip companies bailed out via nationalization, and (the allegedly non-existent) decoupling carried the crisis from US shores to the developed and emerging markets?"

The Stakeholders

Home Buyers

There are those potential home buyers that have the right credit scores from the credit scoring agencies (Experian, Equifax or TransUnion), make the right amount of down payments (20% or more down), obtain the right appraisal of the home, etc. With these standards, the process of closing on a home purchase has worked very well for decades. The mortgages may then be bundled into securities (via the securitization process) and sold to Fannie and Freddie, or packaged into securities as asset backed securities for sophisticated buyers, etc. The proceeds of these sales are then recycled for more mortgages, securities, etc. Thus, those that can objectively afford to be in homes are in homes, hence, we see about 63% home ownership in the US before the exotic mortgages came several years ago.

Then there are those 'new class of buyers' with either no, low or troubled credit scores, who generally do not make any down payment (either cannot or will not), and where the first few years of interest payments are below market interest rates, these are the 'sub-prime' market buyers. The (wrong) assumption was that the value of the purchased house would keep increasing, to the point where homeowners were using the house like a personal ATMs. Mortgages loans such as option ARMs (adjustable rate mortgages) were being offered with supporting documentation requirements that can be best described as 'no doc/low doc' loans or 'liar loans,' where you (the potential homeowner) would verify your own employment, income and assets, etc. Thus, home ownership shot up to nearly 68% during the sub-prime fire-sale bonanza!

An example often cited is that of a vegetable picker earning $14,000 who was able to finance an $800,000 mortgage loan. Our mortgagee is fulfilling his/her monthly obligations for the first few years because of the low teaser interest rates, but eventually the customer runs into trouble when the mortgage payment 'steps up' by a few hundred basis points above the reference rate, typically the 10 year US Treasury rates. Put differently, the payments went from, say, $500/month to $2000/month. Now multiply the above scenario a few million times, and you can see how the subprime scenario induces the default and foreclosure crisis.

Builders

The low interest rates and availability of exotic (unsecured) mortgages encouraged home builders to build and expand inventory, because mortgages were cheap and their borrowing on their construction lines was cheap.

Mortgage Offering Institutions

The most brazen example of a sub-prime mortgage offering institution was probably Seattle based Washington Mutual (WaMU). A recent New York Times article entitled, Saying Yes, WaMu

Built Empire on Shaky Loans, provides a most glaring example of unfettered greed at the top gone amok resulting in the 'Power of Yes' slogan becoming the business strategy!

"A recent New York Times article entitled, Saying Yes, WaMu Built Empire on Shaky Loans, provides a most glaring example of unfettered greed at the top gone amok resulting in the 'Power of Yes' slogan becoming the business strategy!"

Mortgage operations of WaMU during the 'go-go sub-prime period' can be closely compared to the 'boiler room sweat shop' operations of penny stock operators. Pressure from the compensation driven executives at the top to sell stocks was equivalent to the comparable to pressure to sell loans. The riskiest stock and riskiest loans netted the highest profits for the company, the biggest commissions for the brokers, and the fattest checks for CEOs.

The compliance office officer of these 'sweat shop' penny stock operators either did not exist or was pressured to comply in the malfeasance, not very different than the pressure on the underwriter to approve the loan application or to get the right appraisal from the 'independently cooperative' (fee hungry) home appraiser.

Appraisal Companies

These 'independent' entities are requested by the mortgage giving entities to supposedly provide proper valuations on the home to be purchased. They typically use a variety of formulas, say, comparably sold properties in the neighborhood, to come up with a value. It should be noted that a mortgagor may also have in-house appraisers. As mentioned above, house prices were increasing faster historically and money was cheap and easily accessible, i.e., a seller's market, hence, bigger loans (for the buyer) means larger profits for the seller, larger commissions for brokers, greater revenue for mortgagors, and easy fees for the appraising companies. Thus, you see the effects of the 'Power of Yes' culture.

Investment Banks

At one time, some of the brightest minds from schools went into bio-medical, nuclear, computer, automotive, civil, entrepreneurship, engineering, etc. But the extremely attractive compensation packages from Wall Street resulted in the demand of for 'financial engineers,' where 'assets' were literally 'created out of thin air,' and further led to derivative assets. Some have said a it was a fee structure looking for an asset class! In case of sub-prime mortgage back securities, the mortgage offering entity wanted to 'unload' some of these 'exotic' mortgages, and the fee hungry investment bankers were able to 'financially engineer' pools of such mortgages into (rated) tranched securities for sophisticated investors.

Rating Agencies

In simple terms, the role of rating agencies is to provide independent, third party (credit) information on a financial instrument. It sounds simply enough. But the rating agencies were perhaps not as careful as they should have been and allowed packages to be rated more highly than they should have been. The 'Power of Yes?' The existing model of rating agencies being paid by the issuer of paper/securities creates an inherent conflict of interest (actual or perceived). [The Enron fiasco exposed the conflict between audit practice of an accounting firm from the consulting practice of the same, yet, no lesson learned here. Its interesting to note the possibility or potential of law suits against the rating agencies on similar grounds as the accounting firms.] One interesting model proposed by certain rating entities is that rating agencies revenue could be derived from institutional investors, instead of issuers, hence, at least, addressing the conflict of interest issues.

Insurance Companies

The insurance companies were perhaps not as strong as they should have been based on the sheer volume of risk. This, in part, was because they thought they were hedging their risk (by buying credit default swaps from AIG), hence, 'fast, easy and safe revenues.' Again, the 'Power of Yes' shows its presence. The presence of bond insurance raised the rating of the mortgage backed securities, hence, lowering the due diligence scrutiny of supposedly sophisticated buyers.

"But the extremely attractive compensation packages from Wall Street resulted in the demand of for 'financial engineers,' where 'assets' were literally 'created out of thin air,' and further led to derivative assets."

Yield Hungry Buyers

Sophisticated investors, including pension funds, hedge funds, muncipalities, towns, cities, states, and others wanted fixed income securities. But when it came to fixed income securities backed by sub-prime mortgages it seems, these sophisticated investors were either not informed or not careful about what they were buying. In part, the investors relied on rating agencies, rather than understanding what they were buying. They 'juiced' returns by buying the bonds using borrowed funds, because, after all, rates were low and they could make a nice spread on insured highly-rated bonds. As the crisis in the sub-prime mortgages took hold, investors who bought these bonds with borrowed funds got margin calls due to the declining bond prices (Bear Sterns) and had to sell, further depressing bond prices and starting another vicious cycle.

Regulators

Here is where the 'Power of Yes,' or, rather, 'Power of Not No,' made a home for itself in the sub-prime market. Who was looking out for the best interest of the uninformed, hapless or careless mortgagee, like the vegetable picker, and the investor of such mortgage back securities? The variable ARMs were high fee generating mortgages, and were pushed by real estate brokers allegedly having 'fiduciary duties' to the buyer. These same brokers were paid referral fees by WaMu (mentioned above) for such mortgages, hence, mortgages that best served the financial interest of the broker and bank and NOT the buyer. Some of underwriters at WaMu were 'forced to doctor' and approve such high fee generating mortgage applications.

The leveraging of such 'toxic securities' and derivatives off of such instruments were for (those not needing protection) sophisticated investors, who, in hindsight, were not so sophisticated.

"As the crisis in the sub-prime mortgages took hold, investors who bought these bonds with borrowed funds got margin calls due to the declining bond prices (Bear Sterns) and had to sell, further depressing bond prices and starting another vicious cycle."

The Domino Effect

Thus, the perfect financial storm, called sub-prime mortgages, involved credit score challenged buyers purchasing and moving into homes they could not have historically afforded. For this to happen, the sub-prime stakeholders created high fee generating, non-transparent exotic mortgages based on 'smoke and mirrors.' When homeowners could not continue to make their monthly mortgage payments due to the 'step up' provision, the dominos starting to tumble and reached the shores of developed and emerging countries in the form of missed monthly payments (on the purchased asset backed securities like CDOs), which were an important part of operating budgets. Thus, the missed payments by sub-prime mortgagee (in the aggregate) resulted in missed payments to the holders of the purchased securities, which were in turn part of cash flow assumptions for budgets.

"Thus, the perfect financial storm, called sub-prime mortgages, involved credit score challenged buyers purchasing and moving into homes they could not have historically afforded."

Islamic Screening of Sub-Prime Mortgage?

Everything is permissible in Islamic finance UNLESS the structure, and/or transaction has elements of gharar (uncertainty) or its leads to unjust enrichment or unfair exploitation of the counterparty, or the underlying asset is haram (impermissible). The process and procedures of financing like the WaMu ARM mortgages mentioned above would have been a non-starter according to basic Islamic contract law without the need of a consumer protecting regulator.

So, in theory a sub-prime ARM would be rejected by, say, an Islamic financial institution (IFI) because:

- official documents must support employment and income of potential buyer seeking home financing (i.e., its common to have salary transfers from employers by, say, Islamic banks in Dubai, UAE)
- the contract must be clear on all the major terms and conveyed in no uncertain terms to the purchaser, a major pre-condition imposed by the Shariah Board of the IFIs
- the valuation of the home must be done with transparency and be able to support the income of the purchaser

Unlike the board of directors, executives, regulators and compliance officers, Shari'ah scholars are held to and have an allegiance to a higher authority. Hence, every transacting contract for a bank client has met the minimum standards of (Shariah) transparency and accountability. Thus, Shariah scholars, at one level, are consumer advocates.

Now, how would such packaged subprime mortgages be treated as investment and trading instruments by Islamic contract law? The Shariah prohibits the trading of debt, unless at par value, otherwise it (priced at discount) is an interest based transaction. In addition, Shariah prohibits the use of leverage to enhance returns. Furthermore, the Shariah prohibits 'shortselling,' as one cannot sell something that one does not own. Finally, the Shariah prohibits the use of derivatives (swaps, futures and options) because of the speculative (maysir) nature of these transactions. Thus, debt based instruments, like CDOs or collateralized debt obligations, using leverage to enhance returns would be in violation from the beginning, and any derivatives based on them would obviously also be prohibited.

Yes, there are Islamic ARMs (adjustable rate mortgages) where loan to value ratios were up to 97% (at one time issued by Dubai based Islamic mortgage offering entities), but due diligence is done on the buyer (name of employer, income verification, and salary transfer), appraisal of the home is done in transparent manner, process and procedure is signed off by the Shariah board of the bank (with possibly an on over-site by a Shariah liaison officer on-site), and those that can afford to have residents (financed Islamically) have been meeting their monthly obligations.

To the best of my knowledge there have been NO defaults on Islamic ARMs comparable to what has happened in the US in the last two years. However, the sub-prime induced credit crisis has been exported from US shores to, say, Dubai, and is impacting the real estate and financial sectors. The downsizing of companies in these sectors has resulted in employee redundancies, and those (expatriates) with Islamic mortgages are encountering difficulties or defaulting, and, not because they were like the vegetable picker living in a house he could not afford, but because an extra-ordinary event, being laid-off has rendered them unable to make mortgage payments.

NOTE: This is an opportunity for Islamic finance to shine and answer the question: what's the difference (between Islamic and conventional) in treating a defaulting mortgagee on an Islamic mortgage by the Islamic bank?

"The Shariah prohibits the trading of debt, unless at par value, otherwise it (priced at discount) is an interest based transaction."

Conclusion

A commentator best summarized the sub-prime induced credit crisis as, 'the whole situation is as if a group of people you do not know held a party you were not invited to, trashed your house, and sent you the bill.' And a comedian best described the situation as 'who would have thought that Bubba in Tennessee missing a couple of mortgage payments would lead to the implosion of the central bank of Iceland?'

In the name of unbridled greed, via unjust enrichment and unfair exploitation, a relatively simple concept of a mortgage became 'turbo-charged 'revolving door' approval of quality challenged applications'- moral hazard, anyone- that eventually littered the world landscape with foreclosures, unemployment (2.6 million jobs lost in US in 2008), bankruptcies, trillions of dollars of wealth evaporation and a global recession.

Unlike conventional banks, Islamic banks can spread the external shocks with risk sharing depositors (mudaraba), the 'partnership model' (musharaka) on the asset side, and the paid up capital. More specifically, the risk averse nature of Islamic bank operations with (uninsured) depositor money (acting under an Amanah or Trust) encourages them to offer stable/steady returns (where depositors tolerate smaller returns for peaceful sleep at night), larger shareholder- small free float for listed banks- (and depositor) keep a short leash on management to prevent fraud/negligence or estop aggressive risk taking financing (so as to avoid lawsuits against larger shareholders). Also, as access to liquidity is more challenging (compared to conventional counter-part), there is less risk taking and there is less sector concentration financing (lets see how the property exposure of Islamic banks plays out on non-performing loans (NPL) in selected GCC markets). Thus, the moral hazard concerns are relatively minimized.

The G-20 world order is examining a new paradigm of real asset financing and real asset investing, and Islamic finance now has a once in a life-time opportunity to be an important stakeholder of the new world financial order in regaining trust and building confidence, whilst eliminating fear.

Profile

Rushdi. Siddiqui
Former Global Director
Dow Jones Islamic Indexes

Rushdi Siddiqui is the former Global Director for the Dow Jones Islamic Market Indexes. In that capacity he supervises more than 90 Dow Jones Islamic Market Indexes [equity, sukuk, sustainability, etc.] that underlie hundreds of Shari'ah-compliant mutual funds, exchange traded funds and structured products with total Assets Under Management (AUM) of US$7B. He also oversees the Dow Jones Islamic Market Index Shari'ah Supervisory Board of international scholars.

Mr. Siddiqui introduced the idea of building Islamic indexes to Dow Jones in 1998 and since then has been a vigorous advocate for the Islamic finance through his relationships with OIC global stock exchanges and investment firms, speaking at conferences, teaching at universities, writing articles, and conducting media interviews, hence, a rare combination of practitioners experience with vision of an academic in Islamic finance. His work has resulted in over a dozen awards for the Dow Jones Islamic Market Indexes in Islamic finance since its launch.

Banking on Integrity:

The Prospects of Islamic Finance in a Diverse World

Rafe Haneef
Managing Director
Fajr Capital

The ongoing global financial turmoil has prompted many to question the integrity and the sustainability of the existing financial system. The regulators are blaming the banker's greed as the root cause of the unfolding crisis. The bankers are blaming the regulators for prolonging a low-interest rate environment that forced banks to seek riskier assets to remain profitable. The mortgage lenders have been blamed for booking sub-prime assets and perpetrating predatory lending. The sub-prime lenders blame the securitization and credit derivative markets for forcing them to scrape risky assets from the bottom of the credit barrel. Others blame the ratings agencies for failing to analyse the risks involved in packaged securitized products, assigning inflated ratings for risky portfolios. Many blame the investors for demanding high returns even in a low-rate environment; which prompted investment managers to assume risky strategies that yielded high returns. The accountants have been blamed for the off-balance sheet treatment of securitization vehicles like the Qualified Special Purpose Entities ("QPSE") that contributed to the excessively high leverage in the system.

"The present-day system demonstrates that stability can be ultimately destabilising in the long run."

The present-day system demonstrates that stability can be ultimately destabilising in the long run. As expounded by Hyman Minsky, long periods of stability have lead to complacency in lending practices, causing debt to evolve from manageable debts (like amortizing home loans where the lenders can afford both principal and interest payments), to speculative lending (like interest-only mortgage where the lenders can only afford interest payments and principal will be payable at the end of the loan term), to eventually the riskiest "Ponzi" lending (like sub-prime mortgage, which required no initial down payment, a reduced fixed interest rate for two years, and an option to pay interest by adding back to the principal amount). When the Ponzi gamble failed, i.e. house prices started falling and interest rates rising, the loan servicing became untenable, leading to defaults and asset sales, which further brought down asset prices due to the flood of supply on the market, and causing the start of a downward cycle and "domino effect" which rippled through borrowers defaulting, creditors tightening and eventually the banking system nearly collapsing. The world is now in the midst of the worst financial crisis and desperately looking for a viable solution towards a sustainable financial system. This article highlights the prospects of Islamic finance providing an alternative and sustainable financial system provided there is a strong political will to reform the existing financial landscape.

Time to Replace the Fractional Reserve Model

... deposits from depositors and channeling them towards even more risky credits.

Under the current system, risk-averse depositors place their funds in bank deposits which usually pay a nominal interest rate. Under the fractional reserve banking model, the banks will retain a certain amount (average 8%) of deposits and deploy the rest through loans at a higher interest rate to a diversified pool of borrowers. In reality the risk-averse depositors (savers) are lending money to banks at low rates without any form of security or restrictive covenants to monitor the lending activities of banks. In theory, the savers rely on the banks ability to lend prudently and diversify their loan portfolio based on the banks' ability to gather and monitor information on borrowers; but given that banks always keep such information private this often leads to adverse selection and moral hazard problems. Banks often end up making loans to risky borrowers to earn higher returns to the detriment of the depositors who lack the incentive and ability to monitor the lending activities of the banks.

Following the Great Depression in the 1930s, a group of economists from the University of Chicago presented a banking reform plan to President Roosevelt. The Chicago Plan primarily proposed the abolition of the fractional reserve model and the separation between commercial and investment banking (i.e. payment and capital deployment activities), among other banking reforms. The opponents of the fractional reserve system include prominent economists such as Irving Fisher, Frank Knight, Milton Friedman, Murray Rothbard and Ludwig von Mises. Unfortunately, the Chicago Plan was only partially adopted under Roosevelt's New Deal programme. Despite the 1933-35 period seeing one of the greatest dislocations the U.S. economy and the collapse of the financial system, the proposal to abolish the fractional reserve system was dropped due to strong lobbying by bankers, who directly benefited from the status quo model. Ultimately, fractional reserve banking has left the door open for banks to assume even greater risks and expose the depositors to bank failures.

"The Chicago Plan primarily proposed the abolition of the fractional reserve model and the separation between commercial and investment banking"

Principle of "No Risk, No Reward"

In working to alleviate the systemic banker-depositor incentive mismatch which, as currently seen, can spiral out of control, an Islamic financial system proposes for the risk-averse savers to deposit their savings in wadiah accounts (like demand deposits) which will not generate any returns to savers. "The key Islamic principle that governs all investments is "al-ghurm bil ghunm" (no risk, no return)." Since the savers are risk-averse they are not entitled to any return. The banks will also not be able to deploy the funds deposited in wadiah accounts, which will have to be 100% risk-weighted. The banks may end up charging a service fee to the risk-averse savers for keeping their deposits safe and providing the payment functions through branches, ATMs, etc. Further, the depositors will be liable to pay zakah (a form of wealth tax) if the funds kept in the wadiah accounts meet certain zakah conditions. Interestingly, this is comparable to the model advocated by the Chicago Plan and the prominent economists who opposed the fractional reserve banking. In the Islamic model, the risk-averse depositors will have security of deposit at all times given that their deposits will be 100% risk-weighted. As a result, there will be no cause for bank runs and no need for a deposit insurance scheme and costly lender of last resort measures.

Deposit Insurance Scheme Subsidises Banks

Instead of strengthening the banking system by abolishing the fractional reserve model, various governments across the globe introduced deposit insurance schemes that insures up to a certain amount, for example up to $100,000 in the US. Many, including President Roosevelt who established the Federal Deposit Insurance Corporation (FDIC) during the New Deal era, have opposed deposit insurance schemes on moral hazard grounds. Due to political expediency, the Roosevelt administration ended up introducing the deposit insurance scheme to strengthen the fractional reserve system. In reality, deposit insurance schemes only end up subsidizing the banks by enabling them to mobilize risk-free deposits from depositors and channeling them towards even more risky credits. The risk-averse depositors are content with the low rate of return as long as their deposits are insured. Even uninsured depositors are not too concerned with the excessive risks taken by the banks given that FDIC have often protected uninsured depositors when "too big to fail" or "systemically critical" banks get into trouble. As pointed out elsewhere, the subsidy in fact increases in value for the banks as they take on progressively greater risk, providing an additional incentive for a risk preference.

Debt-based Financial Intermediation is Unsustainable

Whilst deposit insurance schemes may prevent bank runs and contagion effects in the short-run, they often encourage excessive risk taking that in the long-run increases bank failures and financial crises. Since FDIC's inception in 1934, a total of 3565 bank failures have been noted - averaging around 10 per year between 1934 and 1981 but rocketing to between 100 and 300 per year from 1982-1992 (peaking at 534 failures in 1989). There may be even more bank failures in 2009, with already 28 failures recorded between 2007 and 2008. Further, deposit insurance schemes always run the risk of mispricing the insurance premium payable by banks due to the fact that premiums are calculated on ex-ante basis. For example, FDIC's total pay-out to insured depositors of failed banks often exceeds the total inflow from bank insurance premiums. Even the newly introduced risk-based premium does not remove the moral hazards risk. It is very hard for a deposit insurer to even evaluate the bank's loan book, let alone a complicated portfolio of financial derivatives.

"There may be even more bank failures in 2009, with already 28 failures recorded between 2007 and 2008."

Because banks have access to cheap deposits subsidized by the deposit insurance schemes, banks are able to offer cheap and easy credit to their customers. Consumers are incentivized and bombarded through clever marketing to borrow and live beyond their means. Corporations invariably resort to high leverage to improve their return on equity to appease shareholders. Such excessively high leverage in the system inevitably leads to excessive aggregate demand in the economy which rapidly builds inflationary pressures. To avoid a financial crisis, regulators will usually respond by shrinking the money supply through interest rate hikes or other monetary tools with the hope of reducing credit expansion and aggregate demand. When credit becomes expensive and scarce, individuals and corporate will struggle to repay their debts and bankruptcy, insolvency and unemployment rates will increase. The process of deleveraging will begin and increase the severity of the financial crisis. Some regulators dread this painful process and opt for a softer landing which sometimes leads to a bigger problem. The current US financial crisis is a case in point.

When the investors 'irrational exuberance' fueled by excessive leverage lead to the stock market bubble in the US in the 1990s and subsequent collapse, the Federal Reserve decided to cut interest rates to avoid a financial crisis. The Fed maintained a low-rate environment for almost a decade and banks consequently went on a lending-frenzy. The lower cost of deposits incentivized banks to offer even more easy credit at even cheaper rates. Predictably, the corporate and personal debt levels increased to unprecedented levels. For instance, the household debt level in the US and UK increased rapidly from around 60% of GDP in the 1990s to more than 100% of GDP in 2008. Further, the low-interest rate environment facilitated prime credit to borrow at incredibly low rates. Banks were then compelled to lend to risky credits at higher rates in order to boost their profitability.

"Because banks have access to cheap deposits subsidized by the deposit insurance schemes, banks are able to offer cheap and easy credit to their customers. Consumers are incentivized and bombarded through clever marketing to borrow and live beyond their means."

Basel II Failed to Discourage Excessive Risk-taking

Under Basel II, banks who lend to risky credits in pursuit of higher returns are required to allocate higher capital to commensurate with the higher risks assumed. In theory, banks will avoid excessive risks in order to avoid allocating more risk-weighted capital to their reserves, which in turn reduces their return on equity. However, due to accounting loopholes banks were able to devise off-balance sheet solutions which gave them access to risky assets and excessive leverage without the need to commit any capital. The banks incentivized intermediaries--such as mortgage brokers--to book sub-prime assets which the banks underwrote and securitized through the off-balance sheet vehicles in return for a high fee income. Banks were prepared to extend loans to risky borrowers given they ultimately packaged and sold on the risk, rather than holding on to these risky assets on their own balance sheet. But, when the off-balance assets become non-performing due to the economic downturn, the banks were forced to treat them as on-balance sheet due to their 'retained interest' in the off-balance sheet assets or due to reputational risks. Suddenly, the leverage ratio of banks increased multi-fold and lead to high profile bank failures due to inability to inject more capital to meet regulatory requirements.

Shift Towards Equity-based Financial Intermediation

It is a well-researched fact that the major cause of the current financial turmoil and most of the previous financial crises is excessive leverage that is inherent consequence of the current debt-based financial system. Islam, therefore, discourages debt in general and in particular incurring debt for living beyond one's means or to grow one's wealth. Debt should be the last resort in economic activities. To promote a debt-free lifestyle Islam strictly prohibits those with surplus funds to loan them on interest or usury. Instead, Islam encourages investments through direct risk-participation ventures like mudaraba (investment trust). Similar to the conventional investment trust, if the underlying mudaraba investment performs well, investors share in the higher return. Conversely, if the investments perform poorly they receive a lower return. In the Islamic model, the financial institution will not guarantee a fixed rate of return to the investors. The mudaraba investments will be treated as off-balance sheet assets and will be 0% risk-weighted for capital adequacy purposes. Given that the financial institution and investors have to share the risk and reward of the underlying investments, the financial institutions will become more prudent and engaged in managing their assets. If their portfolio is not performing well the financial institutions will not be able to attract more investments. There is no deposit insurance to help them attract cheap deposits. Additoinally, investors may liquidate their investments in a low-performing portfolio and re-invest with a better performing portfolio.

It is believed that the Islamic model will ensure that: (i) financial institutions are more prudent in managing the assets and disincentivised from taking excessive risks; and (ii) investors are incentivised to exercise adequate market discipline on financial institutions. Interestingly, a similar approach was proposed by the Chicago Plan which advocated: (i) a 100% reserve for all demand deposits; (ii) a 0% reserve for investment trusts; and (iii) no deposit insurance. Arguably, most savers are risk-averse and may end up placing their deposits in wadiah accounts which will remain as idle capital and create a drag on the economy. However, the Islamic model incentivizes the risk-averse depositors to invest more of their savings in mudaraba through the following deterrents: (i) wadiah fee; (ii) zero wadiah return, (iii) zakah obligation, and (iv) inflationary pressures. Financial institutions will also be incentivized to create a range of investments with a broad risk-reward spectrum to attract investors with different risk-reward profiles. The financial institutions will have to differentiate themselves on superior investment and risk mitigation strategies and superior returns to attract and retain funds from investors. They will also prefer investments in productive assets and will avoid "unproductive" assets to remain competitive.

"Given that the financial institution and investors have to share the risk and reward of the underlying investments, the financial institutions will become more prudent and engaged in managing their assets."

The Islamic system will also need to be regulated to ensure, among others, that (i) the wadiah funds are safe and secure; (ii) investors are given adequate information on mudaraba investments; (iii) there are no scams or illegal investments; and (iv) the marketing is not misleading, confusing or deceiving. To put some skin in the game, the regulators can require the financial institutions to also co-invest in their portfolios (known as musharaka or partnership financing). The nature of regulation, hence, may be a hybrid between the banking regulation and the securities industry regulation. Certainly, a lot more research needs to be conducted to ensure the gradual transition to the alternative Islamic model is not disruptive to the economy. Without such a transition, Islamic finance will never become an alternative and sustainable financial model. What we need now is a strong political will to initiate and complete the gradual transition process.

President Roosevelt missed a great opportunity seven decades ago. Let us not miss this opportunity now.

Profile

Rafe Haneef
Managing Director
Fajr Capital

Rafe Haneef is currently a Managing Director at Fajr Capital, a new Islamic investment company based in London, Dubai and Kuala Lumpur.

He was previously the Head of Islamic Banking for Citigroup Asia based in Kuala Lumpur. He was responsible for developing Malaysia as a regional Islamic finance hub for Citigroup and spread its Islamic business footprint across the region.

Prior to joining Citigroup, he established the Global Islamic Finance Department at ABN AMRO based in Dubai and was in charge of the Islamic wholesale and retail businesses for the group. Prior to that he was with HSBC Amanah in London & Dubai focusing on Islamically-structured cross-border transactions and the Sukuk market. He lead the first global sukuk offering for the Government of Malaysia in 2002.

Rafe Haneef read law and Shariah at the International Islamic University in Malaysia. He was admitted to the Malaysian Bar and was practicing law in Malaysia specialising in Islamic finance. He then pursued his Master of Laws at Harvard Law School and subsequently qualified to the New York Bar.

CHAPTER TWO:

Stability in Food and Energy

The Food Crisis:
Identifying the Cause, Rectifying the Present, Hope for the Future

Jacques Diouf
Director General
Food and Agriculture Organization of the United Nations (FAO)

The Rise in Biofuel:
The Sime Darby Experience

Dato' Seri Ahmad Zubir Haji Murshid
President & Group Chief Executive
Sime Darby Berhad

The War Against Hunger:
Building an Efficient Food System

Joachim von Braun
Director General
International Food Policy Research Institute

The Food Crisis:

Identifying the Cause, Rectifying the Present, Hope for the Future

Jacques Diouf
Director General
Food and Agriculture Organization of the United Nations (FAO)

The world today is in a severe financial and economic crisis. It was preceded by a food crisis that disrupted the international agricultural economy and highlighted the fragility of world food security. It has also showed us that reviving local food production is the only viable and lasting solution to the fight against hunger. We must therefore invest more in agriculture.

The food price crisis has had dramatic economic, social and political consequences. In 2007, mainly because of high food prices, the number of hungry people in the world rose by 75 million instead of declining by 43 million to achieve the commitment of the 1996 World Food Summit. In 2008, a further increase of 40 million people is expected, bringing the total number of people suffering from chronic hunger to 963 million. This means that almost one billion people (or 15%) of the 6.5 billion world population is undernourished.

International prices of major food commodities have come down since July 2008, but the price index is still 17.5 percent above the level of 2006. The crisis is thus far from being over. Reduced food consumption even for short periods can have long-term consequences. Further, with un-replenished cereal stocks, unprecedented high levels of food prices in local markets, high input prices, the global credit crunch and the economic slowdown, food security continues to be under serious threat.

In 1996, at the first World Food Summit which FAO hosted in Rome, the Heads of State and Government of 112 countries and the representatives of 186 Members of the Organization solemnly pledged to reduce by half the number of hungry in the world by the year 2015 and adopted a programme to achieve that target. But already in 2002, a second world summit had to be convened because resources to finance agricultural programmes in developing countries were decreasing instead of rising. At that rate the Summit target would only be reached in 2150. An “anti-hunger programme”, with financial requirements estimated at 24 billion dollars per year was prepared for that meeting.

“... reviving local food production is the only viable and lasting solution to the fight against hunger”

But again, the international community failed to live up to its promises and rather than providing more help, we witnessed a stubborn decline in financing to the farm sector: Aid to agriculture fell from eight billion dollars in 1984 to 3.4 billion dollars in 2004, representing a reduction in real terms of 58%. Agriculture’s share of Official Development Assistance fell from 17% in 1980 to 3% in 2006. The international and regional financial institutions saw a drastic reduction in resources allocated to the activity that constitutes the principal livelihood of 70% of the world’s poor.

Today, the consequences of inaction speak for themselves. Soaring prices for food and inputs have produced a bitter crop of protests, riots and deepening global hunger. The situation has also threatened world peace and stability.

Although in food prices have fallen back from 2008 record levels, during the year as a whole FAO's Food Price Index price index averaged 196 points, up 26% from 2007 and 55% from 2006. Food commodity prices, notably wheat and maize, showed marked volatility.

The global food import bill was expected to top an unprecedented one trillion dollars in 2008 - 23% higher than in 2007 and 64% more than the year before. The most economically vulnerable countries were set to bear the highest burden, with total expenditures by Least-Developed Countries (LDCs) and Low-Income Food-Deficit countries (LIFDCs) anticipated to climb by roughly one third after rising by 30% and 37%, respectively the year before. The sustained rise in imported food expenditures for both vulnerable country groups constitutes a particularly worrying development, since their annual food import basket is likely to cost four times as much as it did in 2000.

No doubt, high food prices do not have to be bad news for all, and farmers normally stand to benefit. But this time the only farmers who managed to profit from higher prices were in developed nations, where cereals production rose by 11% in 2008. In developing countries, farmers were squeezed by soaring costs and any increases were marginal. Prices for fertilizer, seeds and animal feed have risen rapidly since 2006, hitting small, subsistence farmers particularly hard.

To avert a deepening disaster, FAO launched in December 2007 its Initiative on Soaring Food Prices (ISFP).

In essence, the Initiative aims initially at boosting agricultural production in low-income and food-deficit countries over the 2008 and 2009 planting seasons by facilitating farmers' access to essential inputs. Integrated into existing programmes and harmonised with other efforts, measures worth more than 100 million dollars have already been deployed in 95 countries. But this can only be a starting point and much more will be needed – 1.7 billion dollars – to develop a substantive and comprehensive development package for the future.

“Population will grow from 6.5 billion today to 9.2 billion in 2050, with virtually all of the growth concentrated in developing countries”

At the High-Level Conference hosted by FAO in June this year, more than 4500 delegates from 181 countries, including 43 Heads of State and Government and over 100 Ministers, came and renewed their commitment to fighting hunger much more forcefully than in the past. Some 22 billion dollars were pledged in the fight against hunger last year, 11 billion of which during the Conference. This was more than five times the level of all ODA going to agriculture in 2006. We hope that the very encouraging pledges will come forward this time to benefit the poor around the world.

Allow me now to look further ahead into the future. In the next fifty years, it could become much harder to feed the world if relevant actions are not taken immediately. Population will grow from 6.5 billion today to 9.2 billion in 2050, with virtually all of the growth concentrated in developing countries. Global food production will therefore need to double by the year 2050.

Not only will the entire population growth take place in developing countries, urban population will grow while rural population will actually shrink. That means that fewer farmers will have to produce nearly twice as much food as they do today. This requires much more research and technology, infrastructure (i.e. more dams, irrigation and drainage systems, storage facilities), machinery (tractors, implements, water pumps, etc.) and more rural roads.

Land and water resources still lie untapped in some regions of the world, many others lack the luxury of unused resources. Indeed, some regions face severe and increasing resource scarcity. South Asia and the Near East/North Africa regions have already exhausted much of their rain-fed land potentials and depleted a significant share of their renewable water resources. Their food import dependence is high and could increase further. But we will also need better skilled and better trained farmers. Those farmers will have to do the job with fewer resources. More than 1.2 billion people today live in river basins where absolute water scarcity and the trend of increasing water shortages are serious concerns. Huge investments will be required for the development of the necessary irrigation schemes and dams in these areas.

Expanding land under cultivation is possible in sub-Saharan Africa and Latin America but will require adequate farming practices and increased investment.

Global agriculture will also have to cope with the burden of climate change. The Inter-Governmental Panel on Climate Change (IPCC) documented these impacts in its fourth assessment report published last year, which often makes alarming reading. If temperatures rise by more than 2 degrees celcius, the global food production potential is expected to contract severely and yields of major crops like maize may fall globally. The declines will be particularly pronounced in lower latitudes. In Africa, Asia and Latin America yields could drop by 20-40 percent. In addition, severe weather events such as droughts and floods are likely to intensify and cause greater crop and livestock losses. These changes require massive investments in improving agriculture's adaptive capacity to climate change. Climate change in fact poses a twin challenge for agriculture -- adapting agricultural production systems to a new agro-ecological environment and helping mitigate the overall impacts of climate change on the world as a whole.

Fossil energy scarcity could mean that alternative energies will become increasingly important. The energy market is so large and the demand could be so high that it has the potential to change our traditional agricultural market systems completely. Last year high rising oil prices in conjunction with massive and often highly distorting policy incentives made a growing share of agricultural produce competitive as feedstock for the energy sector. This resulted in a situation where nearly 100 million tonnes of cereals was siphoned-off the food markets and diverted away for energy needs.

Another feature that will remain with us for an extended period of time is higher price volatility. The first and probably most important reason is that we do not expect a significant replenishment of stocks over the next 10 years, at least not without deliberate policy action. Second, we find that demand is becoming increasingly less sensitive to price changes as the commodity share in the final food bill falls and as industrial demand grows; third, weather conditions and agricultural product supply may become more variable with climate change; and finally, we have seen that speculative, non-commercial investment funds enter or leave agricultural futures markets as profit opportunities dictate. All this means that the price swings we have witnessed over the past two years are likely to be with us for an extended period of time.

How can we rise to such challenges? We have already made a number of proposals in this respect. In 2002, when I called for a follow-up meeting to the World Food Summit, we presented a comprehensive

Investments would be spread over five principal areas addressing long-term needs.

"More than 1.2 billion people today live in river basins where absolute water scarcity and the trend of increasing water shortages are serious concerns"

approach designed to reduce the number of undernourished to the level aimed at by the WFS in 1996. In this investment plan, which we called the Anti-Hunger Programme, we advocated a two-pronged strategy, which is now often referred to as the "Twin-track approach".

When we prepared the Anti-Hunger Programme (AHP) in 2003, we estimated that an annual overall investment envelope of nearly US$24 billion would be needed to accomplish the goal of halving hunger by 2015. This amount, allocated over five distinct areas was estimated to generate an overall benefit of US$120 billion. The recently adjusted figure for inflations stands now at US$30 billion per year.

The first area of investment would be to improve agricultural productivity and enhance livelihoods and food security in poor rural communities by increasing the quantity and improving the quality of locally available food. It also provides a foundation for equitable economic growth. Starting up such a process requires an initial injection of capital, to enable small farmers to build up productive assets on their farms, to finance seeds of improved varieties, manure or fertilizers; small-scale on-farm equipment (e.g. land levelling, treadle pumps); breeding stock or contributions towards community-led measures to improve food security (e.g. school gardens). Adjusted for inflation, the original estimate would amount to 2.9 billion dollars per year.

The second investment pillar would go to develop and conserve natural resources. If food demand is to be met in the future, increased outputs will have to come mainly from intensified and more efficient use of the land, water and genetic resources (plant, animal, fisheries and forestry) that farmers in developing countries have at their disposal. At the same time, action must be taken to arrest the destruction and degradation of the natural resource base. To this end, we currently foresee an investment need to the tune of 9.5 billion dollars per year.

The third element of our investment strategy foresees to expand rural infrastructure and to broaden market access. A high investment is needed because rural infrastructure is also one of the most neglected areas in many developing countries. It would go into construction of rural roads, improvements of market infrastructure (transport facilities, storage capacity, cold chains, conditioning to respect standards of food quality and safety, slaughterhouses, fishing ports, etc.) as well as the maintenance and rehabilitation of both. All in all, this is the most expensive part of the strategy and would cost about 10 billion dollars per year. Another US$300 million would cover the cost of capacity building, support for policy assistance, institution strengthening and measures to improve plant and animal health.

The fourth major investment area in our long-term strategy is capacity building, knowledge generation and dissemination in particular for small-scale farmers. This requires the provision of effective knowledge-generation and dissemination systems, aiming to strengthen links among farmers, agricultural educators, researchers, extension workers and communicators. It will require 1.43 billion dollars per year.

Fifth and finally, there is a continuing need to ensure access to food for the most needy. They include various options, including targeted direct feeding programmes such as school meals, feeding of expectant and nursing mothers as well as children under five through primary health centres; soup kitchens; and special canteens. For safety nets and other direct assistance we calculated a need of 6.6 billion dollars per year.

To conclude, we are confronted with the unprecedented challenges of feeding more people, better, at higher prices and with more expensive inputs and limited resources, while simultaneously battling climate change. But at the same time we should remember that an era of unprecedented opportunity could also open up for agriculture. High prices can make farming much more profitable and turn agriculture into a key opportunity in the fight against hunger. But for this to happen, we have to create the environment that allows farmers to reap the benefits of high prices. We at FAO have made the proposals to accomplish this. If fully funded, the Initiative on Soaring Food Prices will help address the most acute and immediate needs, and the Anti-Hunger Programme would help us meet the long-term challenges. But we have to act, and we have to act now.

That is why I have proposed the convening in 2009 of a World Summit on Food Security. The Summit should ensure greater coherence in the governance of global food security and lay the foundation of a new system of agricultural trade that offers farmers in developed and developing countries alike the opportunity to earn a decent living. Farmers should earn comparable incomes to their fellow citizens in the secondary and tertiary sectors, if they are to produce more and better. To this end, we must have the intelligence and the imagination to devise agricultural development policies, rules and mechanisms that will yield an international trade regime that is not only free, but also fair.

The Summit will also have to find 30 billion US dollars for the investments I have outlined above. In the immediate term, an "Early Reaction Fund" should be envisaged to revive local agricultural production in the case of crisis, particularly in low-income and heavily food-importing countries.

"Farmers should earn comparable incomes to their fellow citizens in the secondary and tertiary sectors, if they are to produce more and better"

The events of the past two years have reminded us just how fragile the global food system is and how urgent a massive acceleration of investment in agriculture has become. It is the duty of all parties – governments, regional and international institutions, technical and financial partners, the private sector and civil society – to build the conditions for the economic, social and environmental viability of such investment and to realize the objective of adequate food for all.

Profile

Jacques Diouf
Director General
Food and Agriculture Organization of the United Nations (FAO)

Jacques Diouf has been director-general of the Food and Agriculture Organization of the United Nations (FAO) since 1994. A native of Senegal, he holds a doctor of philosophy in social sciences of the rural sector from the Sorbonne University, Paris. He speaks Wolof, French, English and Spanish.

Prior to becoming head of FAO, Dr Diouf was Ambassador, Senegalese Permanent Mission to the United Nations, New York; Special Adviser to the Governor, Central Bank for West African States, Dakar, Senegal; Secretary-General of the Central Bank for West African States, Dakar; Adviser to the President and Regional Director of the International Development Research Centre, Ottawa, Canada and Member of Parliament, Senegal.

Among his many decorations, Dr Diouf received, in 2007, the Commander's Cross of the Order of Merit of the Republic of Hungary; in 2006, the Grand Cross of the Order pro Merito Melitensi (Order of Malta) and the Grand Cross of the National Order of the Southern Cross (Brazil); in 2005, the Order of Independence First Class (Jordan), the Commander of the National Order of Mali, the Hilal I Award (Pakistan) and the Grand Master of the National Order (Madagascar); and in 2004, the Order of the Golden Heart, Rank of Grand Cross (Philippines), the Order of Ulises Rojas (Guatemala), the Order of Vasco Núñez de Balboa (Panama) and the Congressional Medal of Achievement (Philippines).

The Rise in Biofuel:

The Sime Darby Experience

Dato' Seri Ahmad Zubir Haji Murshid
President & Group Chief Executive
Sime Darby Berhad

Over the last five years, climate change has become a key topic discussed not just by world leaders, environmentalists and industrialists, but also by the man in the street. With this comes heightened media attention, and positively, corporations have stepped up with intensified research and development seeking answers to the declining quality of the environment we live in.

In that same period of time, the use of fossil fuels, or black gold as it is often referred to, has come under close scrutiny. Global warming and air pollution have been blamed indirectly and even directly at times, on this commodity, as the world consumes its finite fossil fuel reserves in the quest for growth and modernisation. Demand for fossil fuels is projected to grow at an annual rate of 1.9% until 2020. Thus the world now has two reasons to find alternative sources of energy; the environmental impact of petroleum dependency, and the depleting supply of the same.

Hence, biofuels have come to the forefront of the future of energy. With good reason too; among others, it provides a renewable and supposedly cheaper alternative to fossil fuels as well as mitigating the issue of "Greenhouse" gases (GHG). Table 1 shows the four generations of biofuels.

Table 1: The Four Generations of Biofuel

	First generation	Second generation	Third generation	Forth generation
Feedstock	CPO	Palm biomass	Designer food crop	Genetically Modified feed-stock
Challenges	• Food vs. fuel • Price volatility	• Several uses include bioenergy, composting and mulching	• Seek to improve feedstock	• Design to capture carbon, with genomically synthesized microbes
Potential	• Biofuel from Jatropha and algae • Extraction of high-value compound	• Increase energy productivity • Improved agronomy practices • Upgrade energy-based technology	• Developing novel bioenergy crop i.e. boost oil yield etc.	• Key to process: capture and sequestration of CO_2, carbon negative source of fuel • Combine process of feedstock growth and fuel processing

Sime Darby & Biofuels: Where We Stand

Algae: Winning the Race

It has been suggested that Algae is a very good alternative feedstock. Compared to other energy crops such as oil palm and corn, it offers higher photosynthesis efficiency, higher biomass production and a faster growth rate. At Sime Darby, we are currently looking at the production of biofuels and other high value by-products from algae. An ambitious approach would be to have the algae to act as both feedstock and processor, secreting readymade fuels. A significant amount of algae-to-biofuels commercial activity has been developed in the last year or so with the previous high prices of petroleum derived fuels being a key commercial incentive.

Using filamentous algae found on Carey Island, we are now collaborating with a local university to assess the suitability of this feedstock as a source of biofuels. Although still at the lab leg of R&D, we hope to be able to move this initiative to a pilot stage once the inner workings of this normally forgotten alternative is finalised.

Jatropha: Value Capturing

The world has heard lots about jathropa. Today, the non-edible jatropha oil is one of the best candidates for biofuel production. Jatropha projects today are characterized by new agronomic and technological challenges posed by new production and conversion processes.

Still, jatropha oil is not commercially available at present. With the current scenario of biodiesel development in Sime Darby, planting jatropha could be an alternative for areas that are not suitable for oil palm cultivation; it can be an alternative crop for Sime Darby's marginal estates if the yields for such estates remain unproductive. Depending on palm oil and fossil fuel market prices, jatropha biofuel production may be viable.

Sime Darby is currently initiating intensive R&D programs in various aspects of jatropha cultivation and agronomic inputs as well as the selection of suitable planting materials. Ensuring sustainability standards for jatropha projects, particularly in developing economies involves a detailed assessment of economic, ecological and social dimensions at the planning and pre-project stages.

Biomass: How to Play?

In order to make large-scale bioenergy use competitive with fossil fuels, the conversion technology and total bioenergy systems require further development and optimization. At Sime Darby, the production of heat and process steam, as well as power generation from biomass for heat and electricity still dominates the use of biomass for energy. Table 2 shows the biomass scenario mix in Sime Darby. The question therefore is, what is the most relevant future market for biomass?

In the short run, careful implementation of strategies and policies are needed. We must avoid brisk allocation of biomass resources. The use of biomass for bio-products is predicted to increase, both in well-established markets (such as paper, constructions) and possibly for potential new markets (such as bio-fertilizer and bio-plastics). This adds to the competition in demand for biomass resources.

Table 2: Biomass Scenario Mix in Sime Darby: How to Play?

	Options	Challenges	Opportunities
Current application in Sime Darby	1. Organic fertilizer • Empty fruit bunch (EFB) • Palm fronds	• Nutrient content and value output not precise • Geographical and soil condition dependant • Labor intensive • Weather dependant • High investment cost for composting plant	• Determine value output • Analysis of land and environmental condition • Reduce soil application cost • Improved mechanization and precise agriculture
	2. Composting • EFB • Palm oil mill effluent (POME)		
	3. Bioenergy • Kernel shell • Mesocarp fiber • POME	• Used as boiler fuel • High investment for biogas plant • Economies of scale required	• Power generation to TNB grid • Clean Development Mechanism (CDM) value capture • Integrated bio-refinery
Future Ventures	1. Biofuels* • EFB • POME *Liquid biofuels such as biodiesel, bioethanol, biobuthanol and etc.	• Immature compatible technology platform • Competing application with composting • High investment cost • Technology	• Smart partnerships • IP generations • Genetic improvements in feedstock
	2. Others • Bio-products	• Exploratory stage for R&D • Identifying technology platform • Economies of scale required	• High-value compound • Intermediate for value-added chemical • Replacing petrochemical based products • Green product label

Conclusion

Growing concerns about climate change, energy security and rural development are key drivers pushing innovative solutions to an equitable socio economic model in developing economies. Needless to say, biofuels are an inherent part of these processes.

At Sime Darby, our tagline "Developing Sustainable Futures" seems to have found resonance within this biofuels debate. But it goes beyond the suitability with our corporate motto. This is about the future of our planet.

In practice, we are already producing biodiesel for our internal use; all our vehicles in the Malaysian estates use our own B-Ion (pronounced "Beyond") B5 biofuel. It is our commitment towards doing whatever we can do to change the way we behave towards the future of our planet.

Sime Darby already has 3 biodiesel plants set-up; our Carey Island facility has a capacity of 60,000MT, the one in neighbouring Teluk Panglima Garang is rated for 30,000 MT while our Unimills' plant in Rotterdam is our largest, at 200,000MT.

Still, with CPO prices trending south, commercial production of palm-based biodiesel is not viable. Assuming a price of RM2,000/MT for CPO, crude oil needs to be at approximately US$90/barrel just to break even.

Sime Darby is in a good position to step up to take advantage of the opportunity that is made available to it in biofuels. In the long run, R&D programs will need to be crafted to guide biofuels development to realize its true potential. With careful attention to these issues, leaders around the world can develop a sustainable approach to biofuels that makes the most of the economic and environmental advantages of biofuels.

Profile

Dato' Seri Ahmad Zubir Haji Murshid
President & Group Chief Executive
Sime Darby Berhad

Dato' Seri Ahmad Zubir Murshid, 51, is the President & Group Chief Executive of Sime Darby Berhad.

He has a degree in Industrial Engineering from the University of Wales. Dato' Seri Ahmad Zubir is also a member of the Harvard Business School Alumni Club of Malaysia, having attended the Management Development Programme at Harvard Business School, USA.

Prior to his current position, he was the Group Chief Executive of Kumpulan Sime Darby Berhad, where he had served for over 25 years in various senior positions within the organisation.

On November 27, 2007, Sime Darby Berhad began a new chapter in its corporate journey with the completion of the Synergy Drive merger. This exercise brought together three illustrious Malaysian corporations -- Golden Hope Plantations Berhad, Kumpulan Guthrie Berhad and Kumpulan Sime Darby Berhad.

With a combined workforce of nearly 100,000 employees in more than 20 countries, Sime Darby Berhad is a Malaysia-based diversified multinational. It is involved in several high growth sectors ranging from plantations to property, oil & gas to utilities, and industrial products to motors. Today, Sime Darby Berhad is one of the largest companies, in terms of market capitalisation, on Bursa Malaysia.

Sime Darby Berhad is committed towards developing sustainable futures for all its stakeholders. It holds itself accountable for the environmental and social impact of its business activities and is genuinely committed to deliver sustainable products and services.

The War Against Hunger:

Building an Efficient Food System

Joachim von Braun
Director General
International Food Policy Research Institute


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"While high prices and favorable weather encouraged agricultural expansion in developed countries in 2007 and 2008, increases in agricultural output have not been forthcoming in developing countries."

Despite noteworthy advances in food production, processing, and trade in past decades, the war on hunger is far from being over. Progress in enhancing food security has been slow, and seriously undermined by the drastic rise in world food prices from 2007 to mid-2008 and the global financial crunch unfolding in the second half of 2008. The food and financial crises have also put at risk trade openness and market functioning, which are essential for the efficiency of the world food system. The current global governance of food, nutrition, and agriculture has not been able to adequately address these risks. A comprehensive response is needed now to ease the burden on the poor and build resilience to new challenges. Three sets of complementary policy actions should be taken: (1) increase investment in agricultural productivity, (2) reduce market volatility, and (3) invest in social protection and child nutrition. The war against hunger must be a high priority, especially in difficult economic times, because the poorest suffer most.

Food security at risk

Global progress in combating hunger and malnutrition has been slow in past decades. The 2008 Global Hunger Index[1] score fell to 15.2 compared to 18.7 in 1990, indicating a slight improvement in the overall hunger situation.[2] Yet, the number of undernourished people actually increased from 842 million in 1990 to 963 million in 2008.[3] Even before the food crisis hit the poor, roughly 160 million people were living in ultra poverty, on less than 50 cents a day.[4] In a worrying trend, the most severe deprivation is increasingly concentrated in Sub-Saharan Africa, which is currently home to three-quarters of the world's ultra poor.

High food prices in 2007-08 severely undermined the food security of the most vulnerable by eroding their already limited purchasing power.[5] Poor people spend 50 to 70 percent of their income on food, and had little capacity to adapt as prices of staple foods doubled in just a couple of months but their wages failed to adjust accordingly. Households were left with limited options to cope – cutting on food consumption, shifting to even less-balanced diets, and spending less on other goods and services essential for health and welfare, such as clean water, sanitation, education, and health care. The financial crunch posed additional threats as it further lowered the real wages of the poor and limited the funds available for food aid and social protection. With impairments in children's nutrition, which is crucial for their physical and cognitive development as well as for their productivity and earnings as adults, the adverse consequences of the crises are lifelong—for the individuals as well as for society.

Growth in agricultural productivity is essential for enhancing food security, but it has been stagnating due to underinvestment in agricultural science and technology and in rural development. Global cereal yield growth declined from about 3 percent per year in the 1960s and 1970s to about 1 percent since 2000.[6] Total factor productivity in developing country regions grew by only 2.1 percent per year from 1992 to 2003.[7] Future risks from increasing climate variability further jeopardize productivity growth.

High food prices provided some positive incentives for policymakers, farmers, and investors to increase agricultural production and productivity. However, the variability of food prices and the credit crunch have been obstacles to long-term planning and to making new investments in developing countries. Even farmers who already took advantage of rising agricultural prices to invest in expanding production may find themselves unable to pay off their debts because of falling output prices. While high prices and favorable weather encouraged agricultural expansion in developed countries in 2007 and 2008, increases in agricultural output have not been forthcoming in developing countries. Indeed, cereal output grew by only 0.9 percent in developing countries, and excluding Brazil, China, and India, it actually fell by 1.6 percent.[8]

Globalization, markets, and trade

The integration of production and processing of agriculture and food items across national borders through markets, standardizations, regulations, and technologies has been a major force of change in the agrifood system. The world has become increasingly prosperous and well-fed with globalization, but at the same time, the distribution of assets and income has become more unequal as international corporations have been increasing their power and leverage compared to other actors.[9] The disparity of scale between small farmers and the rest of the agrifood business chain raise new challenges. Many farmers are faced with high barriers to market entry due to geographic distance to national market centers, the safety and quality standards of food processors and retailers. Contract farming and cooperation schemes, which are ways to overcome this dilemma, need to be adopted at a larger scale.

The extent and pace of international integration as well as the functioning of markets have been impaired by the food crisis. Uncoordinated government responses to rising prices led to enormous efficiency losses within the global food system, and hit the poorest countries and people the hardest. When food prices were particularly high, major producers imposed export restrictions on agricultural commodities in order to minimize upward pressures on domestic prices and impacts on particular groups. Although these export restrictions may have reduced food shortage risks in the short term, they made the global market smaller and more volatile, and had adverse impacts on import-dependent partners. Many countries also imposed retail price controls, which created perverse incentives for producers.

"Uncoordinated government responses to rising prices led to enormous efficiency losses within the global food system, and hit the poorest countries and people the hardest."

Rising expectations, speculation, and hoarding deepened the food crisis by increasing the level and volatility of prices beyond supply and demand fundamentals. The flow of speculative capital from financial investors into agricultural commodity markets increased drastically in 2008. Distrust in markets, pressure on natural resources, and a re-examination of the "merits" of self-sufficiency have led many countries to start rebuilding their national stocks and investing in agriculture in other countries to secure supplies. The media report that for example Republic of Korea invested in Madagascar, Kuwait and Qatar in Cambodia and Sudan, Bahrain in the Philippines, and the United Arab Emirates in Kazakhstan and Sudan. China has invested in agriculture in a number of African countries, as well as in the Philippines and in Russia. Such investments are not to be condemned since further growth in agricultural production is needed. However, recipient countries need to negotiate contracts wisely and a code of conduct should be enforced that should include rules of engagement ensuring the participation of local producers, respect for customary property rights, appropriate compensation, sustainable management of natural resources, and non-impaired trade policy rules.

"... the number of undernourished people actually increased from 842 million in 1990 to 963 million in 2008. Even before the food crisis hit the poor, roughly 160 million people were living in ultra poverty, on less than 50 cents a day."

1. The GHI is a combined measure of three equally weighted components: (i) the proportion of undernourished as a percentage of the population, (ii) the prevalence of underweight in children under the age of five, and (iii) the under-five mortality rate. The 2008 GHI is based on data until 2006 – the last year with data available at the time of publication.

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Priorities for investment and action

Progress in the war against hunger should be measured not primarily by declines in food prices, but by significant declines in the number of food-insecure people. Policymakers, development practitioners, donors, and private-sector actors should increase the ability of the world food system to respond to emergencies and build up its resilience with appropriate policy formulation, implementation, and adequate resource mobilization. Three sets of complementary policy actions should be taken: (1) increase investment in agricultural productivity, (2) reduce market volatility, and (3) invest in social protection and child nutrition. These three actions should be supported by a new a global architecture for governing food, nutrition, and agriculture.

1. Increase investment in agricultural productivity

Investments should be made in research and development (R&D), rural infrastructure, rural institutions, and information monitoring and sharing. A recent study by IFPRI shows that if global investments in public agricultural research doubled from US$5 billion to US$10 billion from 2008 to 2013, agricultural output would increase significantly and millions of people would emerge from poverty.[10] If these investments are targeted at the poor regions of the world, overall agricultural output growth would increase by 1.1 percentage points a year and lift about 282 million people out of poverty by 2020.

2. Reduce market volatility

Two global collective actions are needed: (1) a small physical reserve must be established to facilitate smooth emergency response to food price crises, and (2) an innovative “virtual reserve” should be created to help avoid the next price bubble. The virtual reserve could be implemented by the Group of Eight Plus Five and some other large grain-exporting countries. The organizational design could include a permanent high-level technical commission that would intervene in futures markets and a global intelligence unit that would signal when prices headed yet again toward a bubble.[11] Usually, intervention would not be necessary and the whole operation would remain promissory or virtual.

3. Invest in social protection and child nutrition

Actions for stimulating agricultural growth and reducing market volatility are essential, but not sufficient, to achieve food security in the increasingly complex international economic context. Also needed are protective actions to mitigate short-term risks as well as preventive actions to preclude long-term negative consequences. Protective interventions include conditional cash transfers, pension systems, and employment programs. Preventive health and nutrition interventions such as school feeding and programs for improved early childhood nutrition should be targeted to vulnerable groups and be strengthened and expanded to ensure universal coverage.

"A recent study by IFPRI shows that if global investments in public agricultural research doubled from US$5 billion to US$10 billion from 2008 to 2013, agricultural output would increase significantly and millions of people would emerge from poverty. If these investments are targeted at the poor regions of the world, overall agricultural output growth would increase by 1.1 percentage points a year and lift about 282 million people out of poverty by 2020."

Profile

Joachim von Braun
Director General
International Food Policy Research Institute

As IFPRI's Director General, von Braun guides the Institute's research on production, market, and nutrition policy and strategy toward solutions for ending hunger and malnutrition. With about 270 staff members -one third of which are based in developing regions- IFPRI is the world's premier research center on food and agriculture policy research. Before becoming IFPRI's Director General in 2002, he served as Director of the Center for Development Research at the University of Bonn, Germany, and was Professor for Agricultural Policy and Applied Economics.

Dr. von Braun has done economics research at global and regional levels and in Egypt, Sub Sahara Africa, China, and Russia. He has published extensively, chiefly on the topics of economic policy, agriculture change, science and technology and on policy issues relating to trade, hunger, health, and nutrition. He was President of the International Association of Agricultural Economists in 2000-2003, is member of Academies in Germany and China, Fellow of AAAS, and serves numerous scientific societies, international organizations, and advisory councils/boards around the world.


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CHAPTER THREE:

Tackling a Thirsty World

Blue is the New Green:
A Demand-Side Proposal on Water

Dr. Mahmoud Abu-Zeid
President of the Arab Water Council &
Minister of Water Resources and Irrigation, Egypt

Water:
A Market of the Future

SAM Sustainable Asset Management AG & PricewaterhouseCoopers

Blue is the New Green:

A Demand-Side Proposal on Water

Dr. Mahmoud Abu-Zeid
President of the Arab Water Council &
Minister of Water Resources and Irrigation, Egypt

Water Demand Management

Water means life. It is a basic source in all human activities. Water is becoming scarce in quantity and inadequate in quality in many areas around the world. There is a worldwide consensus that the need for water and water supply systems are increasing rapidly as a direct result of human population growth, improved standards of living and industrial expansion as well as escalating need for food in dry climate areas.

While the global population has tripled in 70 years, water use has grown six-fold. As a result, the world average per capita share of fresh water declined from over 12,000 m3 in 1960 to about 8,000 m3 in 1990 and it is expected to fall down below 4000 m3 in year 2025. Within the next 25 years, one third of the world's population is expected to experience severe water scarcity. Latest statistics showed that the current global consumption of all the accessible fresh water is about 54%. This amount is expected to increase to about 70% by year 2025 due to population growth alone. In arid and semi-arid regions, the situation is very much aggravated. The level of exploitation of water resources is generally high reaching over 50% or even nearing 100% in many countries like Egypt, Libya, Malta, Tunisia, and Palestine. Groundwater over-exploitation is also a reality leading to a widespread salt-water intrusion with disruptions between water demand and renewable conventional supply increase exponentially.

Currently, there is a general agreement on the main challenges that are facing world water resources management. These challenges are; how to meet the human basic needs in safe water and sanitation; securing the food supply; protecting ecosystems from the negative impacts of the human activities; sharing water resources through transboundary rivers; managing the risks as floods, droughts, pollution and other water-related hazards; valuing water by a good management in a way that reflects its economic, social, environmental and cultural values for all its uses; governing water wisely by better coordination and institutional strengthening; and the impact of climate change on water resources deficit.

There is a serious need for a shift in the way water is currently managed. Water Demand Management can be a viable management option to complement supply management in alleviating problems of water stress. Demand-oriented approach looks at the real demand for water and tries to urge the users to make better use of water. It is a tool for managing demand, which can be altered by a number of measures. Over the agricultural sector, the technical/structural demand-oriented measures to save water might include; The assessment of water resources which is required for a number of purposes apart from assessing the quantity and quality and distribution in space and time; Policies of water resources management should look at the whole set of technical, institutional,

managerial, legal, and operational activities required to plan, develop, operate, and manage the water resources system on both the national and local scales while considering all the sectors of the economy that depend on water; The involvement of all stakeholders as much as possible in the various management activities; Decentralized water management should improve governments' ability to reflect on the economic value of water and assess user charges that will create incentives for efficient water use as well as finance improved service delivery; Involving private sector in financing related infrastructure projects; The public sector can develop a stable enabling environment, in which there are effective and predictable rules and institutions for balancing the interactions between investors, government and users and affected people. While better coordination and institutional strengthening is highly needed to overcome fragmented responsibilities in the field of integrated water resources management; Increasing the productivity of water is central to producing food and reducing competition for water as well as feeding the world's undernourished population. Getting more crop per drop can be achieved by introducing shorter-duration and higher-yielding crop varieties, switching to less water-consuming crops, or improving agronomic practices.

On the other hand, uncontrolled, currently wastewater reuse practiced on a large scale would result in higher incidences of disease among farmers and consumers and in irreversible degradation of the environment. Policymakers need to develop comprehensive strategies for managing wastewater tailored to local socioeconomic and environmental conditions. These policies need to maximize the benefits, and minimize the risks. In this regard, the pollution of water resources, either through agricultural drainage water, industry and/or domestic uses seriously affects the quality of water. Decisive efforts are needed to find realistic ways out of this dilemma, including identification of critical pollution sources and better approaches in land and water management.

It should be mentioned that water-pricing system must be aiming at national benefits and useful purposes. However, charging users for water and irrigation services is a sensitive issue in many countries, as it involves several dimensions: political, historical, social, religion, and economical. Water beneficiary, especially farmers, tends to believe that water is free and no charges should be taken. This is true in the sense that water is a natural source and it must not be priced. But on the other hand, water service charges can contribute significantly in recovering part of the costs for construction, operation and maintaining water resources systems and relieve the government of a financial burden. This of course, will raise the quality and efficiency of water services provided to end-users.
It should be mentioned also that the Concept of Virtual water is a fairly new notion and is used to quantify countries agricultural and industrial production in terms of the amount of water used for production.

In conclusion, with growing demands for water, researchers and scientists need to investigate new low-cost technologies to increase the use of unconventional water resources including desalination of saline water and treated wastewater.

Profile

Dr. Mahmoud Abu-Zeid
President of the Arab Water Council & Minister of Water Resources and Irrigation, Egypt

H.E. Dr. Mahmoud Abu-Zeid, is presently Minister of Water Resources and Irrigation in Egypt. Dr. Abu-Zeid is considered the principal initiator of the modern school of applied multi-disciplinary research in the area of integrated water management in Egypt. He has been extremely active in international affairs assuming top positions in several prominent international associations. In 1996, the International Water Resources Association (IWRA) announced the formal establishment of the World Water Council (WWC) and Dr. Abu-Zeid was elected the first president of the Board of Directors of the Council. Dr. Abu-Zeid is currently the president of the Arab Water Council (AWC). On the African level, Dr. Abu-Zeid has been the coordinator of the African Water Resources Network for the past eight years and is currently a member of the Nile Basin Council of Minister. He was the first chair of the African Water Facility (AWF) council. Dr. Abu-Zeid has authored and co-authored almost 200 papers, 11 books, and other publications of considerable importance in environment, water resources and management. He is also a member of the Editorial Board of several national and international scientific journals. Dr. M. Abu-Zeid is truly leading Egypt towards new horizons of Integrated Water Management. His initiatives are of crucial importance for the welfare of his country. Winner of the first prize of King Hassan II Award, March 2003, and recently, the Emil M. Mrak International Award, US Davis University, California, USA in 2008.

Water:

A Market of the Future

SAM Sustainable Asset Management AG &
PricewaterhouseCoopers

Water – A Global Challenge

Water is vital to our existence. We need it for our personal use, to grow food, and to produce virtually everything we need in our daily lives. Yet, with populations booming and global demand soaring, this scarce resource is set to become even scarcer.

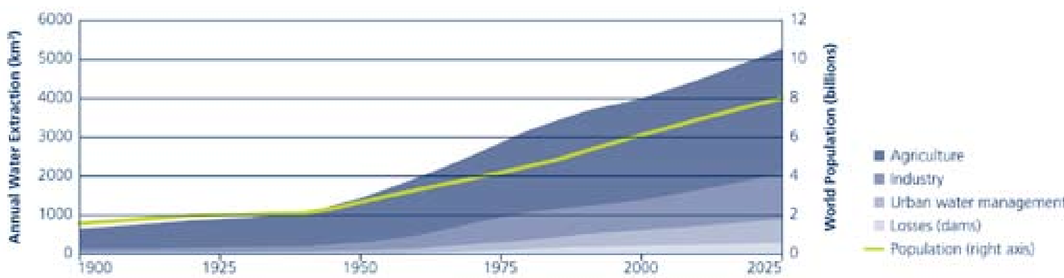
In some countries the available water reserves are being used in an unsustainable way, and shortages are becoming a serious problem. Nations located in arid regions (including Muslim countries in West Asia, Middle East, North Africa) are struggling to irrigate the crops they need to feed their populations. Many are failing to provide sufficient quantities of water of acceptable quality. Often, water resources are polluted by domestic and industrial wastewater that is channeled back into the water cycle with little or no treatment. Around 2.4 billion people worldwide still have no access to adequate sanitation.

Supplying sufficient water of adequate quality is therefore one of the major challenges modern society is facing. To meet that challenge, a whole range of water services needs to be expanded and made more efficient. Enormous investments are required to upgrade and expand infrastructure that, in industrialised countries especially, has long since passed its lifespan. For poorer and rapidly growing nations in particular, new technologies need to be developed for treating, distributing and using water.

The supply of fresh water is limited, but demand is growing steadily. Only around 10% of the world's annual precipitation is actually available for drinking, agricultural irrigation and industrial use. Consumption has risen sharply in recent decades, actually outstripping the rise in the overall population.

Water Use and Global Population 1900 - 2025

A comparison of global water consumption since 1900 and predicted water consumption up to 2025 against global population trends demonstrates that water consumption has increased more rapidly than the overall population.



Sources: FAO: Aquastat, www.fao.org/nr/water/aquastat (5.10.2007) and United Nations Secretariat: The World Population Prospects 2006, http://esa.un.org/unpp/p2k0data.asp (5.10.2007)

Worldwide, 10% of water flows into domestic use and 20% to industry. Seventy percent goes to agriculture (by far the largest consumer worldwide) – and demand is rising steadily. Most of the water is used for irrigation, and much is wasted due to inadequate infrastructure, or lost in crop failures. Moreover, because rainfall is distributed so unevenly, not all countries are able to produce enough food for their own people, forcing governments to import at least part of what they need. Industrial consumption, though high (and proportionately higher in industrialised nations), is relatively stable.

Water is big business. The sale of water-related equipment and services now produces an annual turnover of USD 400-500 billion. The price charged to consumers, meanwhile, is often too low to accurately reflect its value. If the price of water rises, this will have dramatic consequences in every aspect of our lives, and affect almost all of society's commercial activities. Companies that identify and respond to these changes at an early stage will be better positioned in the market and will achieve greater commercial success. For all the challenges it faces, the water market has great potential.

Global Trends Impacting the Water Market

The development of the water market is being driven by four megatrends: explosive population growth, run-down infrastructure, demands for higher water quality, and climate change. These megatrends will intensify the pressure to manage existing water resources far more efficiently in the years ahead.

1. DEMOGRAPHIC CHANGES

The global population is booming: the UN expects it to reach 9.2 billion by the year 2050. In recent decades water consumption has grown even faster than populations, mainly due to improvements in living standards. More and more people are also moving from the country to the city, placing extra strain on the urban water infrastructure. UN forecasts indicate that almost 60% of the world's population will be living in urban areas by 2030, as against just 29% in 1950. The result is booming demand for water services, especially wastewater treatment.

The Food and Agriculture Organization expects demand for food to be 55% higher in 2030 than in 1998. Cropland under irrigation is likely to increase by 20%, pushing up water consumption by 14%. In areas such as the Middle East and North Africa (large Muslim populace), there is likely to be less water available for agriculture, forcing these countries to import even more food than at present.

Use of Water Reserves in Different Regions of the World

The map shows the river basin areas where the available water reserves are being overexploited by humans. In these regions the long-term survival of the ecosystems is under threat.

Source: UNDP: Human Development Report (2006)

The results of overexploitation are already apparent: once mighty rivers now carry only a fraction of their former water volume, and the groundwater table is steadily falling. Eleven countries with almost half the world's population currently have a negative groundwater balance.

Countries where water is scarce are increasingly trying to expand freshwater supplies by using desalination plants. Capacity has risen enormously in recent decades, partly because production costs have dropped dramatically. Plants are also being built that are capable of treating wastewater for reuse in other applications.

2. AGEING INFRASTRUCTURE

Most industrialised nations built their water mains back in the early 20th century. In many areas huge investments are now required to repair and upgrade infrastructure that has reached the end of its useful life.
Water mains are also being inadequately maintained: in London over 800 million liters of water a day are lost through leaks, and even in extremely arid countries such as Saudi Arabia, very little care is taken in using this precious resource.

3. INADEQUATE WATER QUALITY

Over a billion people worldwide have no access to safe drinking water. In developing countries many in urban areas are not connected to a proper sewer system. Wastewater from households is simply released into the environment and industrial effluent is often inadequately treated.

Lack of adequate sanitation in countries with poor infrastructure is one of the major causes of deadly gastrointestinal disorders.

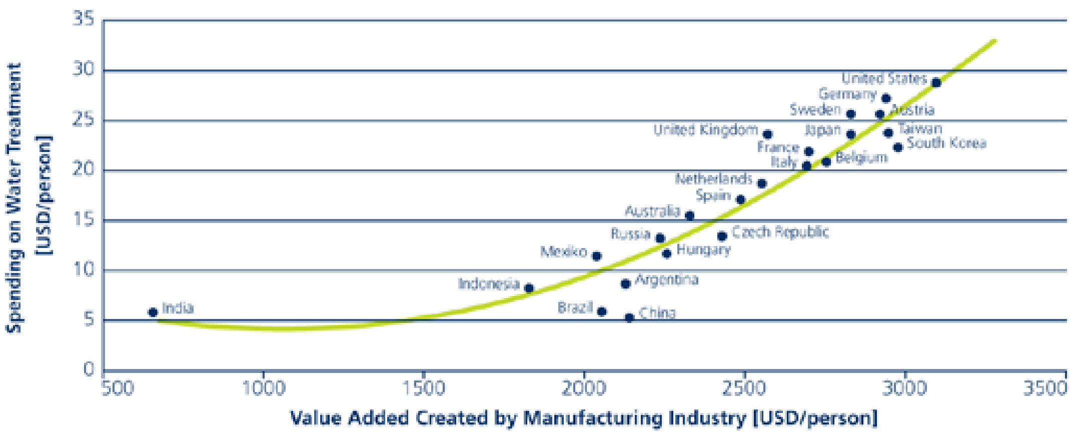
Even industrialised countries are facing new challenges. Despite new sewage treatment plants, hazardous chemicals are still entering watercourses, while new substances are entering the water cycle which wastewater treatment systems are unable to remove entirely, such as antibiotics or other micropollutants.

Although food production has risen significantly in recent decades, this is largely due to increased use of crop protection agents and fertilisers which are now causing contamination and pollution.

Sales of bottled water have rocketed – even in developed countries, where water has become a lifestyle product.

Water Treatment and the Creation of Industrial Value Added

The higher the value created by manufacturing industry, the higher the level of spending on water treatment tends to be.



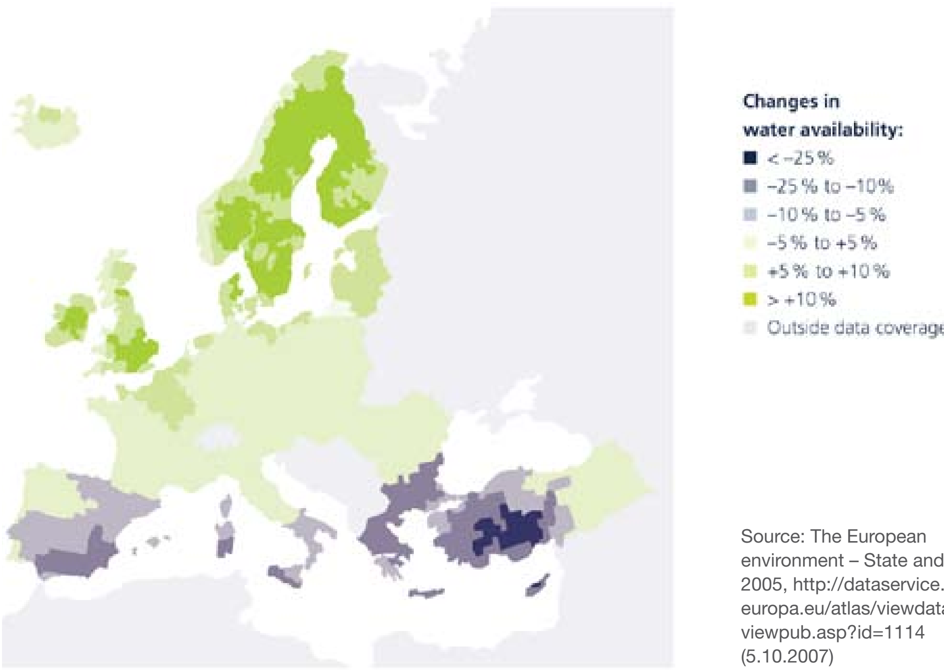
Source: Nalco, Freedonia (2006)

4. CLIMATE CHANGE

The Intergovernmental Panel on Climate Change (IPCC) anticipates increased average annual runoff in high latitudes and in some tropical regions, more areas affected by drought, and more water shortages. Heavy, potentially damaging rains are likely to become more common. The volumes of water stored in glaciers and the snow pack will decline, leaving less water available in regions supplied by meltwater – regions where over a sixth of the world's population currently lives. In Europe, the IPCC predicts, Mediterranean countries will be worst affected, with high temperatures, extreme drought, poor water availability and therefore limited potential for exploiting water as an energy source.

Changes in Water Availability in Europe

The map shows which regions will have more or less water available in 2020 than at present as a result of climate change.



Source: The European environment – State and outlook 2005, http://dataservice.eea.europa.eu/atlas/viewdata/viewpub.asp?id=1114 (5.10.2007)

Investment Opportunities

As pressure on the world's limited water resources mounts, consumers are becoming increasingly aware that water is a precious resource which needs to be managed sustainably. Technologies that promote more efficient water use are already available, while enormous efforts are being made in agriculture to improve the efficiency of water use. Companies that respond to these developments and offer innovative solutions can look forward to a sharp increase in demand.

SAM has identified four investment clusters with attractive upside potential:

Distribution and management

Businesses in this field focus on maintaining and upgrading water mains and sewer infrastructure, managing water resources and tapping into new sources of water.

Advanced water treatment

Wastewater treatment is a rapidly growing area, especially in Asia. This cluster also includes companies involved in the disinfection of drinking water and desalination of sea water, as well as providers of control systems and analytical instruments.

Demand-side efficiency

This cluster includes companies offering products and services that boost the efficiency of water use in households or industry.

Water and food

Companies in this group develop products that improve water efficiency and reduce pollution in crop irrigation and food production. Others are involved in the production of bottled water.

The global water market is vast. The bulk of it is concentrated in water supply and wastewater services. The biggest markets are in Asia (particularly China and Japan), Europe and North America; the fastest expanding are likely to be China and India and, especially, the Middle East, where growth may exceed 10%.

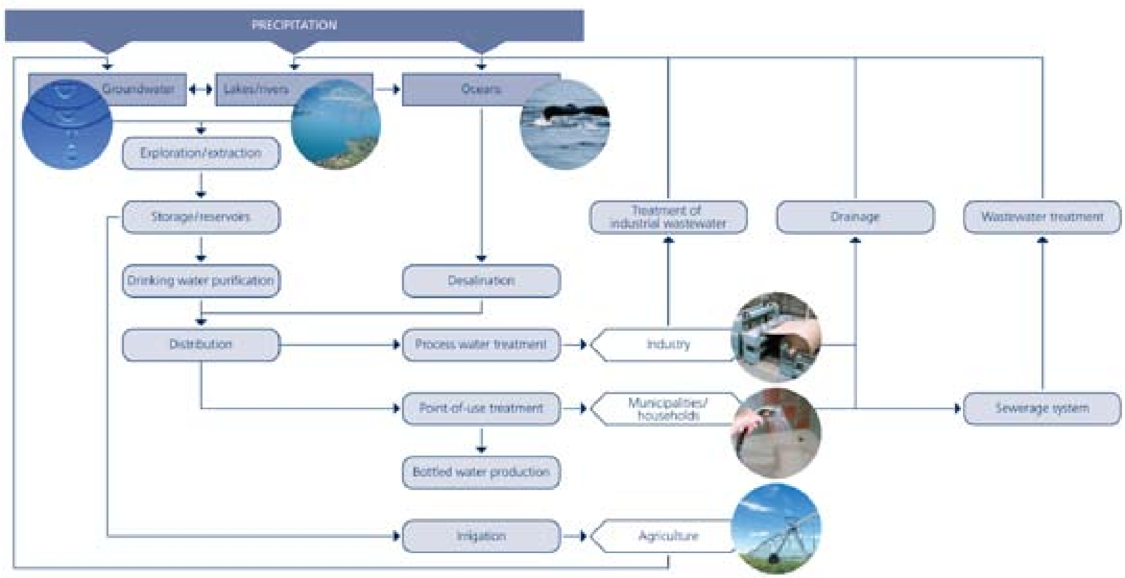
The highly fragmented market is set to consolidate as bigger firms move to establish global distribution networks and the concept of public-private partnership takes hold. Meanwhile, despite considerable skepticism, private operators are expected to establish themselves in certain areas, primarily the Middle East and East Asia.

There is a growing recognition that water must be given a price tag that accurately reflects its vital role in our lives. Investors will need to closely monitor the response to this trend by politicians and legislators, especially as new environmental standards will have a major impact on the growth of individual segments of the water market and, consequently, on the attractiveness of companies in these segments.

Water is set to develop into a dynamic market of the future. Given the global trends that are shaping the water market, demand is unlikely to drop off in the long term. This means attractive opportunities for all businesses offering products and services for the treatment, supply or use of water. Companies that offer sustainable solutions stand to benefit the most. Investors with a long-term horizon can therefore expect to find numerous worthwhile and attractive investment opportunities.

The Water Value Chain

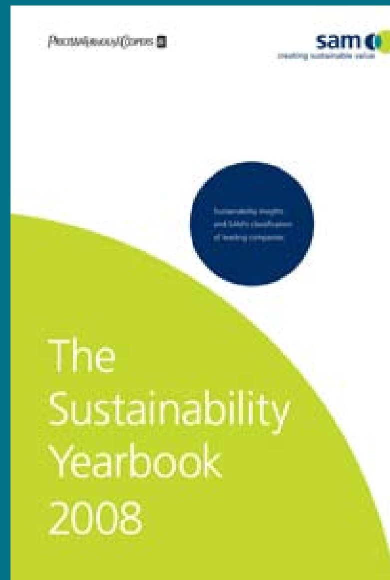
Water value chain (simplified). Attractive investment opportunities exist along the entire chain.



Source: SAM

Profile

SAM Sustainable Asset Management AG & PricewaterhouseCoopers



The Sustainability Yearbook 2008 is the world's most comprehensive annual publication on sustainability trends and corporate sustainability performances. SAM and PricewaterhouseCoopers have teamed up to present SAM's empirical assessment of over 1000 global companies. The research strongly suggests that there is a positive, statistically significant correlation between corporate sustainability and financial performance. It indicates that sustainability considerations are an integral part of corporate financial performance, and that the integration of such factors into traditional financial valuation can help facilitate investors gain an attractive long-term return potential.

SAM Sustainable Asset Management AG (SAM) was founded in 1995 as an independent asset management company for sustainability investments and has grown to become one of the world's leading institutions in this field. SAM has a comprehensive portfolio of theme-based products in the areas of new energy sources, water, new materials, healthy living and climate. In addition, it offers large institutional investors a broad range of client-oriented, mandate-based services on the basis of its proprietary sustainability research know-how. SAM seeks and identifies leading companies on the basis of company-specific sustainability criteria. Integrating those future-oriented factors into the company valuation and investment process represents the foundation of its investment philosophy. SAM's expertise is based on its own proprietary, independent research and a worldwide sustainability network, coupled with the world's largest corporate sustainability database. For more details, please visit www.sam-group.com.

PricewaterhouseCoopers (www.pwc.com) provides industry-focused assurance, tax and advisory services to build public trust and enhance value for its clients and their stakeholders. More than 155,000 people in 150 countries across our network share their thinking, experiences and solutions to develop fresh perspectives and practical advice. "PricewaterhouseCoopers" refers to the network of member firms of PricewaterhouseCoopers International Limited, each of which is a separate and independent legal entity.

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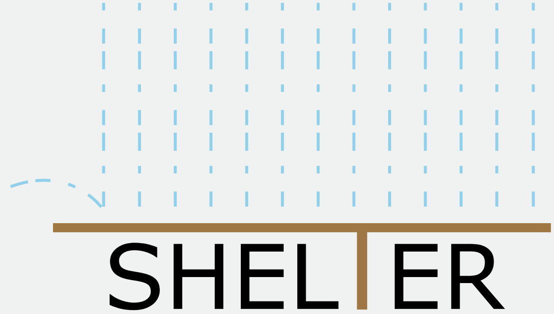
FOOD

In 2009, the world's population is estimated to be 6.7 billion, and is projected to reach nine billion by 2050. The development of technologies for efficiency and better agricultural yields are critical in ensuring sufficient food supply.

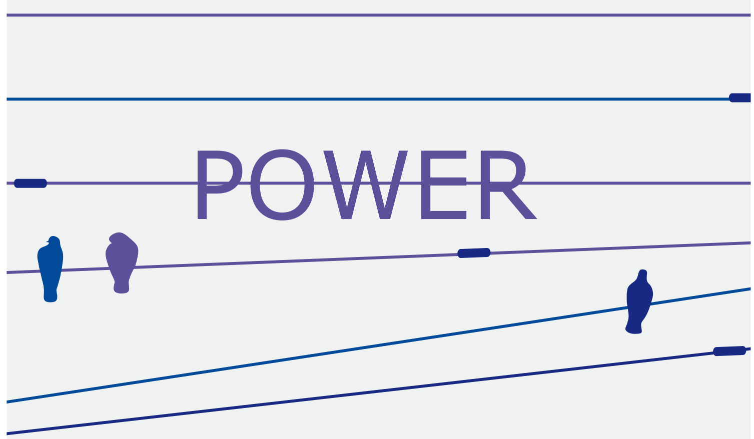


SHELTER

As populations grow, the development of self-sustaining communities becomes more acute. A highly competitive area, it is a great challenge even for the most innovative minds.

TRANSPORT

Today there is a need for more efficient vehicles, built with a higher percentage of recyclable materials and that can run on alternative fuels. Always at the cutting edge of technology, this is an exciting sector.



POWER

Only five percent of the world's energy comes from renewable resources. But the need for energy is constantly increasing. Finding solutions in this area requires some of the best minds.

DEVELOPMENT

As nations develop, more infrastructure is needed. By using efficient heavy equipment, these needs can be met in a more environmentally-friendly manner.

WATER

Less than one percent of all the water on the planet is fresh and drinkable. A critical resource worldwide, ensuring clean, consumable water supply is a mammoth task.

Around the world, we work to develop sustainable solutions for the world's greatest needs.

Our business divisions operate in more than 20 countries, guided by a common vision. It anchors us as we work in some of the world´s most critical industries such as plantation, property, industrial, motors, energy and utilities. We believe that by understanding and respecting nature and all that it provides us, a sustainable future can be real for everyone.

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International Halal Integrity Alliance

The industry's absence of a constructive platform to communicate and network has resulted to a cry for a neutral platform with a credible reference centre for a global Halal standard. This is where the International Halal Integrity Alliance (IHI Alliance) steps in, following a mandate by the Organisation of the Islamic Conference (OIC) that one voice should be the representative with regards to values, Halal and quality control.

IHI Alliance is a non-government, non-profit organisation, set up in 2007 following a resolution passed by international delegates over 30 different countries, consisting of a cross section of stakeholders across the whole industry supply chain at the World Halal Forum 2006. Having been mandated to spearhead the development of the Global Halal Standard, IHI Alliance is created to uphold the integrity of the Halal industry through recognition, collaboration and certification.

IHI Alliance has made a strategic collaboration with the Islamic Chamber of Commerce and Industry (ICCI) which concurrently made its President, His Excellency Sheikh Saleh Abdullah Kamel the Chairman of IHI Alliance.

"Through our vision, IHI Alliance seeks to propagate the benefits of Halal and elevate it as the standard of choice by all consumers to achieve a stronger global Halal industry for the benefit of all," says IHI Alliance CEO, Darhim Dali Hashim.

Development of Global Halal Standards

Following the mandate from the OIC at WHF 2006, the IHI Alliance has been developing the Global Halal Standard, consisting of ten modules covering the entire Halal food supply chain. The modules being developed are Logistics, Foodservice, Lab Testing and Analysis, Animal Feed and Inputs, Animal Welfare and Handling, Food Processing, Cosmetics and Toiletries, Pharmaceuticals, and Finance.

The development of the standards is modelled after the International Organisation for Standardisation's (ISO) standards development procedure. Participation of all the stakeholders includes the Ulamas (Islamic scholars and Shariah experts), industry players, and certification and regulatory bodies. The stakeholders have been divided into working groups (WG) with reference to the individual's expertise.

As part of the process in developing the Global Halal Standard, discussions have been conducted worldwide in both Muslim and non-Muslim majority countries. Data compiled during these discussions will then be updated by the secretariat who will then prepare a committee draft for distribution among members.

Following this, the committee draft will then be submitted to IHI Alliance's Shariah Advisory Board for review. Upon approval by the Advisory Board, the draft shall then be presented to the ICCI General Assembly for the OIC's stamp of approval for usage of the standard throughout the OIC member countries. This standard is then ready for the public enquiry phase which will be presented at the fourth World Halal Forum in May 2009. The standards presented at WHF 2009 will be open for public comment for a period of five months.

Out of the ten modules to be developed, IHI Alliance started off with Halal Logistics. Several meetings have been initiated to discuss amongst the stakeholders on developing the Halal standard for Logistics. Other venues for these meetings were Kuala Lumpur, Rotterdam, Dubai and Hong Kong. Most of these meetings were held concurrently with various Halal trade shows where stakeholders were able to participate.

Other modules under development now are foodservice, food processing, animal feed, animal slaughter and processing, and lab testing and analysis. The same methodology will be used for all modules in the development of the draft for the Global Halal Standard.

For more information, log on to **www.ihialliance.org** or contact us at **+603 2300 1344**.

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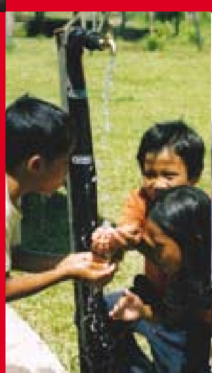
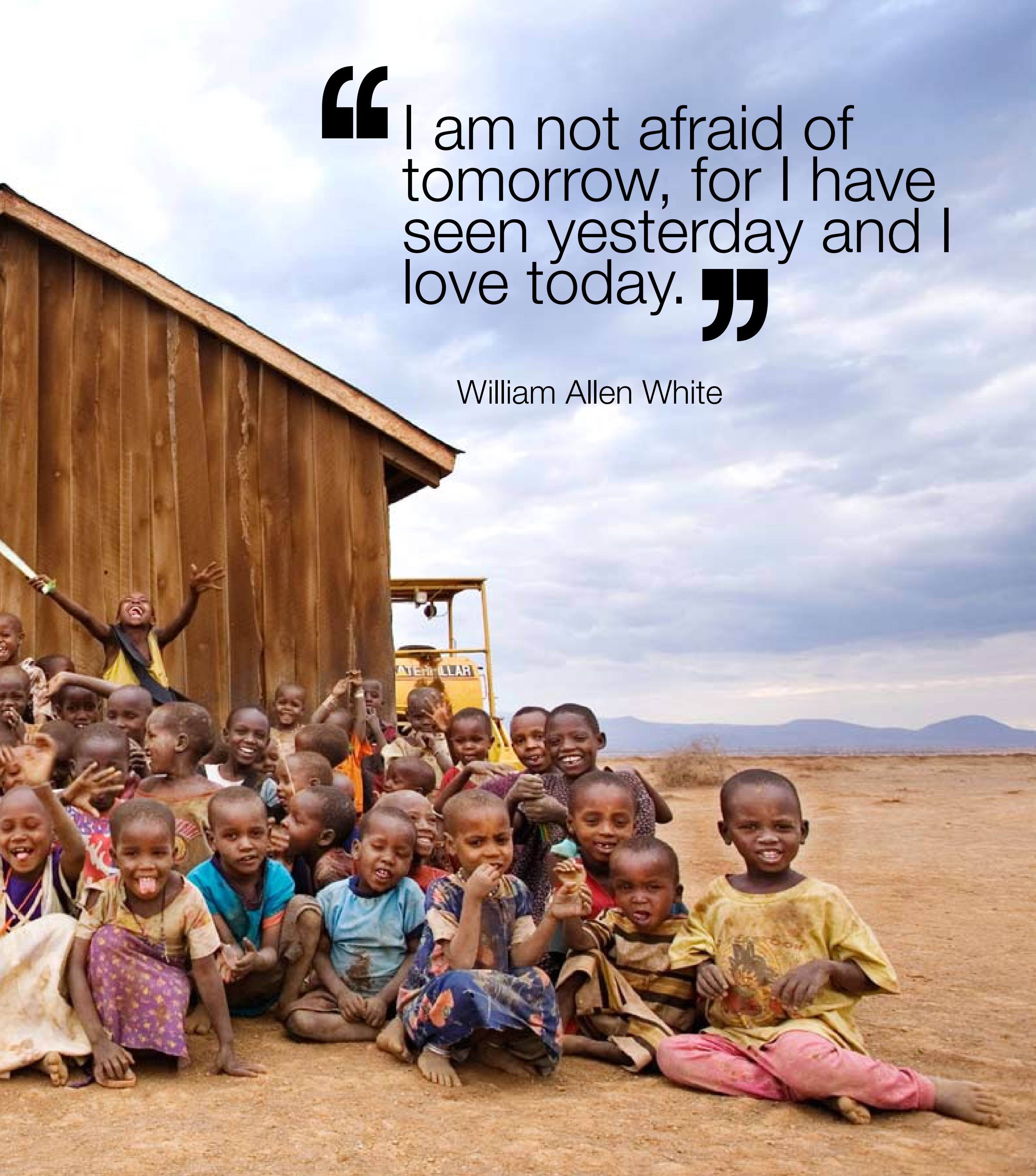



WIEF

“I am not afraid of tomorrow, for I have seen yesterday and I love today.”

William Allen White



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