G20

CHINA 2016

TRADE & FINANCE

Gender parity in the Global Workforce – an Economic Driver

Christine Lagarde discusses the issues

Page 20

ENERGY

Long-term Policies for the Renewable Energy Transition

Dr Fatih Birol explains

Page 48

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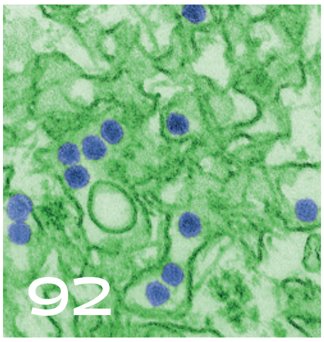
CONTENTS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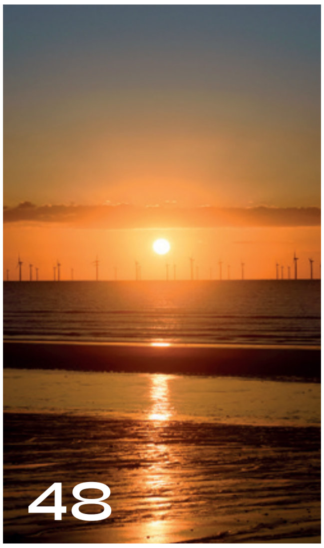
48


86


22

PRESIDENT XI JINPING
People's Republic of China

The G20 summit mechanism was set up at the height of the international financial crisis in 2008, demonstrating G20 members' determination to put the global economy back on its feet. The G20 thus became the premier forum for international economic cooperation. Looking back, I believe that the most valuable thing this process has created is the close partnership we have forged that has enabled us to jointly tide over a difficult time. It proves that in a world of deepening economic globalization, cooperation is the sure way for countries to meet challenges and achieve common development.

Today, the global economy and international economic cooperation have reached another crucial juncture. Can we strengthen the foundation for global recovery and growth and leave the crisis behind us? Can we seize the historical opportunity presented by technological breakthroughs and a new industrial revolution and usher in a new round of global growth? The answer lies in the course of common action that we will take.

Now, all eyes are on the G20. As an important forum for cooperation among developed countries, emerging markets and developing countries, the G20 plays a key role in leading

and advancing international economic cooperation. It should act with a broad vision and deliver concrete outcomes. It should address critical issues affecting the global economy and endeavor to promote strong, sustainable and balanced growth.

We should strive to build an innovative, invigorated, interconnected and inclusive global economy and explore new ways to drive development and structural reform, injecting impetus into the growth of individual countries and energizing the global economy. We should embrace the vision of a global community of shared future, enhance economic connectivity and exchanges among countries and improve global economic and financial governance so as to address inequality and imbalance in global development and ensure that the benefits of economic growth will be equitably shared by people of all countries.

In the course of making preparations for the 2016 G20 summit,China will work with all other parties to pull in one direction in the spirit of win-win partnership. We should pool wisdom, form synergy, implement the outcomes of the Antalya Summit and all previous summits, and jointly advance international economic cooperation.

I look forward to meeting the leaders of the G20 to discuss ways of enhancing international economic cooperation.

Hangzhou, renowned for its rich history, is also a city of innovation. It is a cosmopolitan city with a distinctive Chinese cultural appeal. I am sure that, through our joint efforts, Hangzhou will deliver a uniquely impressive summit to the world. ■

G20 2016 CHINA

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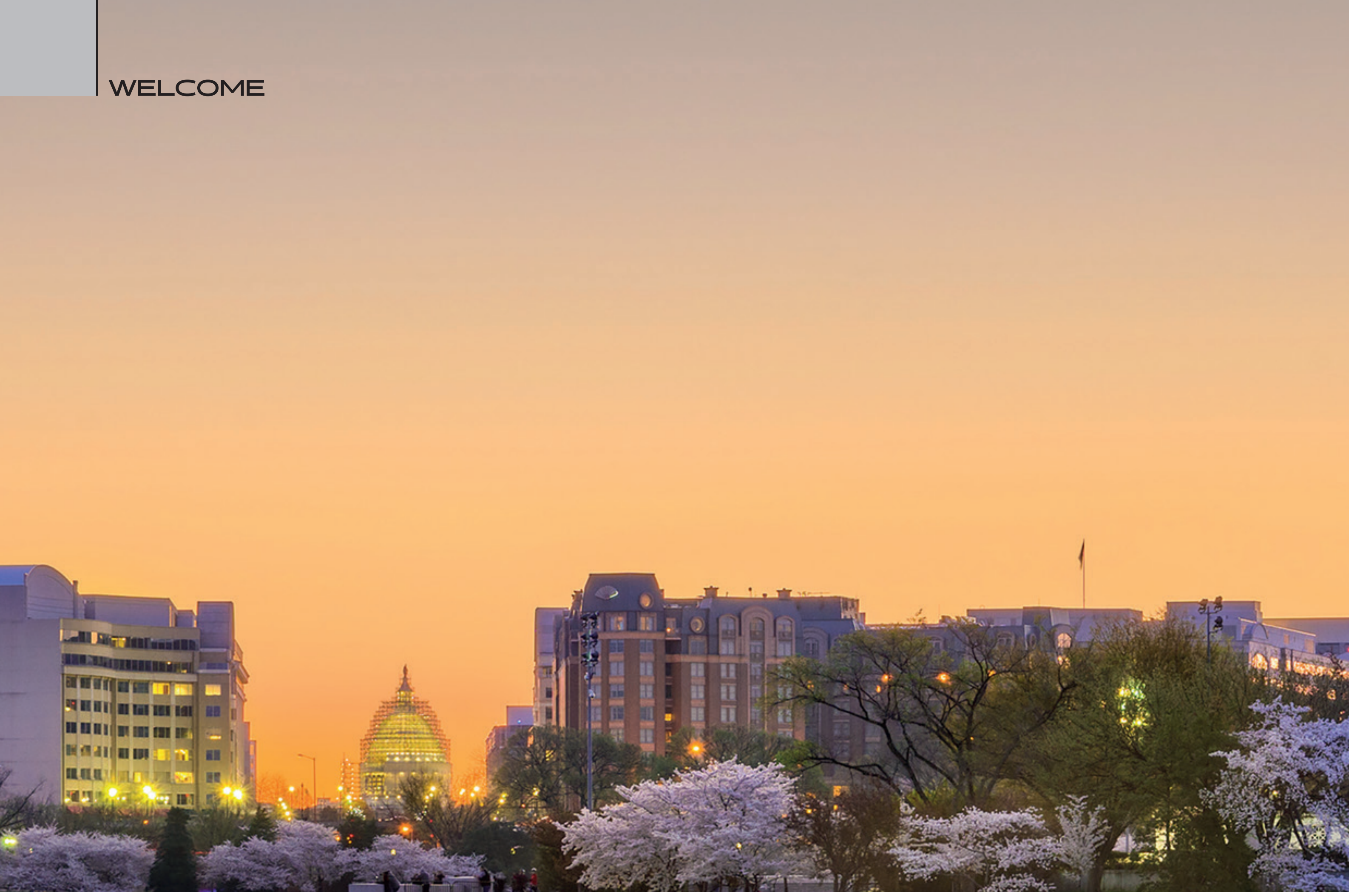


BARACK OBAMA
President of the United States of America

As I've said before, the United States welcomes the rise of a peaceful, stable, and prosperous China, working with us to address global challenges. And I have been committed throughout my administration to working effectively with China on a whole range of issues and have developed a frank and effective level of communications cooperation with President Xi as we seek to expand cooperation between our countries and narrow our differences.

The United States and China have established a relationship when it comes to nuclear security, and that includes China's new Nuclear Security Center of Excellence. I believe we can deepen our cooperation, including against nuclear smuggling.

Of great importance to both of us is North Korea's pursuit of nuclear weapons, which threatens the security and stability of the region. And President Xi and I are both committed to the denuclearization of the Korean Peninsula and full implementation of UN sanctions. So we're going to discuss how we can discourage action like nuclear missile tests that escalate tensions and violate international obligations.

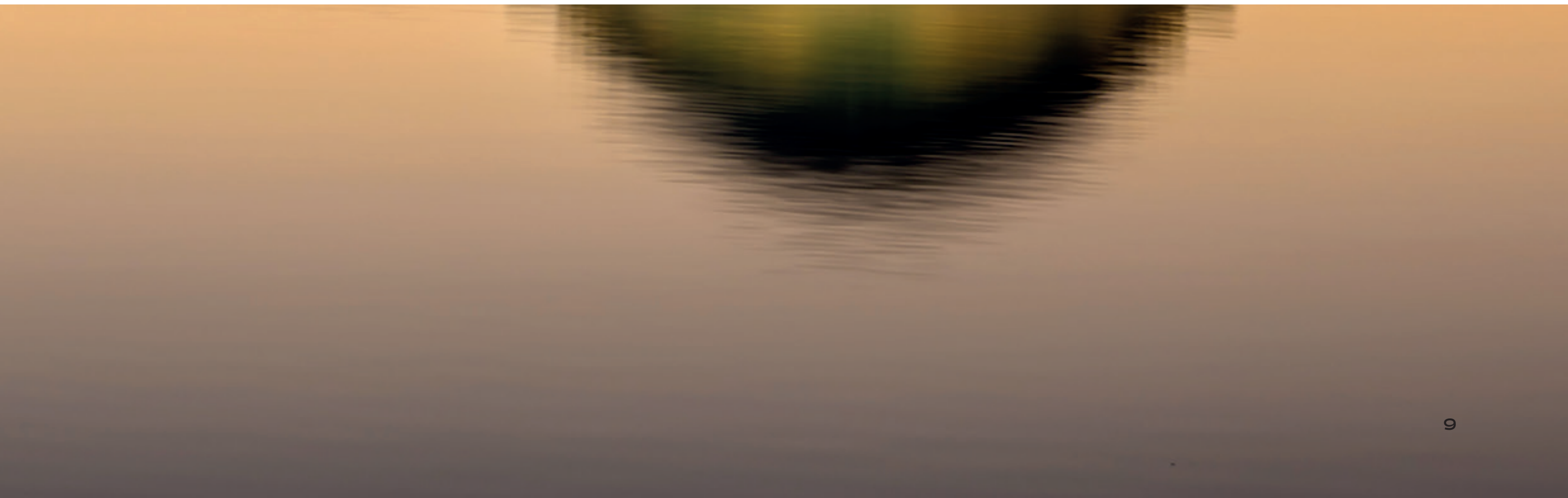
I'm also very pleased that today we're announcing new steps to accelerate

implementation of the historic Paris climate change agreement. Our cooperation and our joint statements were critical in arriving at the Paris agreement, and our two countries have agreed that we will not only sign the agreement on the first day possible, but we're committing to formally join it as soon as possible this year. And we urge other countries to do the same.

I look forward to working with President Xi as well on the global economy. As the world's two largest economies, we have a special obligation to find cooperative measures that we can take to expand growth and global demand. And because China is hosting the G20 this year, we look forward to using this meeting to establish some of the agenda items that we want to drive at the G20. We very much want the G20 to be a successful meeting, and given China's past hospitality of large summit meetings, we're sure we can be successful in helping to promote global growth as well as address a range of other challenges.■

Excerpts from President Obama's meeting with President Xijinping at the Walter E. Washington Convention Center, 31st March 2016

> As the world's two largest economies, we have a special obligation to find cooperative measures that we can take to expand growth and global demand. ”



VICTOR PHILIPPENKO
Chairman of the Board,
G20 Foundation

It has been a dramatic Year. The refugee crisis within the EU, the BREXIT referendum, the attempted coup d'etat in Turkey, multiple terrorist attacks, ongoing military conflicts in Syria and Ukraine, the extraordinary presidential election in the US are all events of paradigm-shifting significance.

In the current age of the 24-hour multimedia news cycle, one can easily be tempted to deduct that multilateralism is in decline and that some countries are re-discovering protectionism – if not isolationism. Yet at these moments it is imperative that we realise we need to focus on the concrete challenges from a global perspective. Specifically, G20 allows us a compass of clarity within which we can distil the essence of these global challenges with clarity and nuance. It is this point of view, that will prevent us from being overwhelmed from the projected apocalypses that are supposedly lurking in the shadow of each and every human tragedy and political crisis, especially when they are close to home.

We need the G20. It is an exemplary platform for international cooperation and has proven itself in most tumultuous times as a remarkable catalyst. However in this year of tumult, where populist

stances threaten to trump even the most rudimentary facts, we also must acknowledge some of the fundamental weaknesses of the format.

The G20 participants have to realise that expansive, lofty agendas are meaningless if one keeps on changing priorities. Providing strategic outlooks on global economic matters such as international tax or financial regulation will not be implementable if the protagonists fail to educate the global audience on the necessity of said reforms. In troubled times, we have to focus and communicate the core values of the G20 community: Stability, Equal Opportunity, Sustained Growth.

The members of this successful mediation platform must reaffirm that solutions for conflicts of interest should always be found within this communal framework rather than acting unilaterally, eventually even at the expense of the global community. This also means striving always for a sensible discussion of the challenges that come with the continuous expanse of globalisation.

The G20 is the premier forum for international economic cooperation. It gained prominence when the leaders of G20 countries came together to shape the international response to the 2008 global financial crisis. Since then the forum has expanded its agenda, but it has failed to address challenges arising from globalisation. Today, a growing number of commentators question its relevance. The British exit from the European Union is stern reminder that pure globalisation cannot be implemented against the will of the people without provoking extreme reactions. ■

FOUNDATION G20

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www.SmartCityNews.global

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Let us jointly help to ensure that good times await us.

Best regards from Germany!

Dr. Chirine Etezadzadeh
President of the SmartCity.institute
and Founder of SmartCityNews.global

TRADE AS A FORCE FOR GOOD

ROBERTO AZEVÊDO
Director-General
of the WTO

WTO OMC

Amidst the recent flood of rhetoric about trade, I think it's crucial that we remember one fact: trade has the potential to change people's lives for the better. Trade was a driving force behind the rapid growth and prosperity enjoyed by many developed countries since the Second World War, and it continues to support those economies today. Meanwhile, the benefits of trade have also begun to reach people in less-developed economies. Over the past quarter century, one billion people have been lifted out of extreme poverty. Around two-thirds of that poverty reduction came from economic growth in developing countries – with trade acting as an important driver.

Nevertheless, it is important to acknowledge that trade is not perceived so positively in many constituencies. There are a number of specific concerns which are often raised. They must be heard and responded to if we are to ensure that trade keeps delivering the economic gains of which history shows it is capable.

For example, we must recognize that while the benefits of trade are spread across the economy, the effects of increased competition can hit specific communities hard. We need to put more focus on how governments can mitigate those impacts. We must also rectify the perception that imports make jobs disappear. Actually, the vast majority of jobs are lost because of new technologies and increased productivity. In addition, we need to address the perception that trade only favours the big companies. This is not true, but there's no doubt that trading internationally is normally much more costly and difficult for small enterprises. We need to support micro, small and medium-sized enterprises (MSMEs) to trade – not least as they are huge job creators, accounting for around 90% of the workforce in many countries.

In responding to these concerns, we need to promote a well-informed, calm and balanced debate, and we

> We need to promote a well-informed, calm and balanced debate, and we need to continue working to reform and improve the global trading system, to the benefit of all. ❞

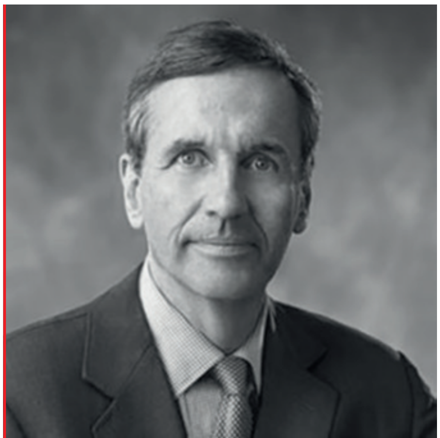
need to continue working to reform and improve the global trading system, to the benefit of all.

A lot has already been achieved on this front. The WTO's members have quietly delivered a run of trade reforms over the last two and a half years, such as the Trade Facilitation Agreement. This was the first multilateral trade agreement since 1995 and it could reduce average trade costs by over 14% globally. WTO members also agreed to abolish export subsidies in agriculture, which was the biggest reform in global agriculture trade for 20 years. And, a group of members have struck a deal to eliminate tariffs on a range of new generation information technology products, worth around 1.3 trillion dollars each year.

These agreements will help to lift trade and economic growth, but clearly there's more to do if we are to get trade moving again for small and large businesses alike, in developed and developing countries alike. That's what we're trying to do at the WTO. Every WTO member agrees that we need to make progress on outstanding issues such as domestic subsidies in agriculture, and improved market access for agricultural produce, industrial goods and services. Some are also keen to discuss a range of other issues, such as facilitating digital trade, promoting investment, and ensuring that the trading system supports MSMEs. In each case, flexibility and creativity will be essential ingredients if progress is to be made.

This is a crucial time in the trade debate. If we work together, there is a huge amount we can do to ensure that trade continues to improve people's lives. If we don't, we risk exacerbating wider economic problems and to the detriment of global growth and development. As ever, the G20 will play a leading role in this debate, and in strengthening global trade for the benefit of all. ■

BUILDING A FINANCIAL SYSTEM THAT INVESTS IN SUSTAINABLE DEVELOPMENT



SCOTT VAUGHAN
President and CEO,
International Institute for
Sustainable Development

Sustainable development is an investment challenge. A coal fired power plant or renewable energy? Light rail transit or a six-lane highway? These are investment decisions, made daily around the world, that set humanity on a trajectory that is either sustainable, or not.

The 2030 Agenda for Sustainable Development sets out to transform our world. The trillions of dollars spent daily to power our economies are the means to move us to a new generation of clean, low-carbon and innovative solutions. Today, green financial products are a small, boutique segment of major markets. We need to scale up action, so that high-carbon investments become the market exception, precisely because of their poor return on investments.

From Wall Street to Avenida Paulista—Getting Finance Aligned with the SDGs

The good news is that we now have a clear, unambiguous and universal understanding of what needs to be done to move to a climate smart and sustainable development world: all countries adopted the Sustainable Development Goals and the Paris climate change agreement in 2015.

Among the most exciting source of innovation comes from the financial system, clustered under the umbrella of 'green finance'. Certainly public finance has a critical role you play, both in setting broad objectives and leveraging and de-risking deals. However, the world needs the innovation of private markets and investors to put us on a low-carbon pathway. One of the breakthrough signals from both the 2015 Paris climate change agreement and the Sustainable Development Goals is the need for blended finance, whereby private and public finance move in tandem towards scaling up sustainable development.

Progress to bridge financial markets with the climate and sustainability agendas is accelerating quickly. The United Nations Environment Programme (UNEP) has championed green finance for more than

IISD
International Institute for
Sustainable Development

> We are seeing a new generation of micro-credit systems, crowd funding and peer-to-peer lending that can scale up the development and deployment of green technologies. ❞

two decades. Yet it is only in the past two to three years that a "quiet revolution" has gotten underway in financial markets. UNEP's Inquiry into the Design of a Sustainable Financial System's flagship report last year took a deep dive into emerging practices, showcasing hundreds of examples of deals or supporting policies, ether focused on particular asset pools and managers, or broader governance structures.

A key mover in greening financial markets is China. As the co-chair of the G20 green finance working group, China is the world's largest issuer of green bonds, is advancing environmental risk across financial sectors and has, since 2014, required the inclusion of green criteria within total financial liquidity.

International Cooperation and Domestic Sustainable Development Strategies

Under China's presidency, the G20 has also integrated green finance into its formal work program, in the form of the G20 Green Finance Study Group which has a mandate to examine institutional and market barriers to green finance.

Moving forward, the G20 should elevate the study group to become a more permanent Working Group. At this critical moment following the Paris climate change agreement, it is important to ensure alignment and harmonization of a range of domestic actions, notably around what is meant by 'green', some standardization of green bond screening, third-party certification system to strengthen market-confidence, as well as enhanced disclosure.

At a country level, removing incentives that skewer investment decisions in the wrong direction is a first order of business. For the past decade, my organization has shone a light on the hundreds of billions of dollars that governments spend each year on subsidies for fossil fuels, a significant portion of which incentivize the oil and gas industry to extract more fossil energy from the ground. These and other perverse incentives need to go, and the public balance sheet leveraged in ways that improve risk-adjusted returns for investments that benefit sustainable development.

This is a unique moment, one in which for the first time the global environmental agenda is universal, ambitious and explicitly supportive of the private sector to advance solutions. Examples of innovation are springing up daily. In Kenya, smart-phones are replacing the older vision of a national banking system, and whole off-grid solar panels are leap-frogging the need for a national electricity grid. We are seeing a new generation of micro-credit systems, crowd funding and peer-to-peer lending that can scale up the development and deployment of green technologies.

Our challenge is certainly not a lack of innovative, transformative ideas. It is a matter of time. Climate science makes it abundantly, urgently clear that we cannot delay action. ■

OVERCOMING THE BARRIERS TO PRIVATE SECTOR INVESTMENT

HELEN WONG
CEO, Greater China, HSBC

COP21 in Paris last year was an historic turning point in the fight against climate change. The job of financing the change is as unprecedented as the agreement itself, with the G20 Finance Ministers' July Communiqué emphasizing the development of green finance.

Over the next 15 years, 90 trillion US dollars of investment is needed to achieve the commitments made in Paris. This equates to around RMB2 trillion over the next 5 years for China alone to deliver its environmental targets.

China's commitment to reduce its own emissions has been instrumental both to the constructive tone of the talks and the successful outcome of COP21 and its G20 Presidency. As the world's largest developing country, leading industrial power and biggest trading nation, China will continue to play a central role in the implementation of the climate agreement in years to come.

What is already clear is that no one sector of the economy can deliver the investment alone. For its part, the private sector will need to stump up most of the capital – perhaps as much as 85 per cent. But the public sector also has a vital role to play, both by directing the resources at its disposal and by creating the conditions that will unlock private sector investment. This is evident when we consider the basic barriers to private sector investment in sustainable projects.

The first barrier is policy uncertainty: Sending clear and unequivocal signals of policy direction gives investors the assurances they need that projects will have long-term political support. It also enables investors to become increasingly activist in demanding change, which in turn forces companies to respond by allocating capital to cleaner, greener operations, and away from carbon-intensive activities.

The second barrier is a lack of transparency and disclosure: Investors need access to good quality information and transparency to help them make investment decisions. At the moment, information is at worst unavailable and at best not standardised, meaning

HSBC

investors are unable to make accurate comparisons. The publication of the FSB taskforce report at the end of this year will be a critical milestone towards an agreed standard on disclosure, which will help investors put a price on climate risk. Formalising the nature of that disclosure will go a long way to providing a concrete point of comparison.

Creating the right incentive framework is the third barrier to unlocking private sector investment: At the present moment, green finance is more expensive than conventional finance because of the rigorous disclosure requirements imposed to enable investors to track where their capital is being invested and ensure green criteria is being met.

Of course it is important that investors do have this information. The amount of additional work it requires should be reduced as we move towards more standardised disclosure. But the costs it incurs still need to be offset in other ways if we want the market to grow at the rate we need.

There has been some good progress made. There appears to be widespread agreement that carbon pricing is an important incentive for sustainable investment and a means to raise revenue for low-carbon funding. By assigning a specific cost to greenhouse gas emissions, green energy can be priced more efficiently compared to other sources of energy. But carbon pricing is an area where reaching agreement has proved far from straightforward.

The current impasse makes it all the more urgent that we make progress on other incentives. A potential area to consider is whether risk weights should be eased for green lending or other green investments – or whether risk weighting should be increased on activities that clearly have no long-term, sustainable future.

In the past few years, the global green bond market has continued to grow strongly. We've just had USD 30.3 billion of green bonds issued in 1H2016, up 60% versus USD 19.0 billion in 1H2015. China has been responsible for much of this growth with its green bond market has gone from nowhere in 2015 to accounting for roughly half of global issuance today

The challenge of financing the transition to a low-carbon world is significant. But huge progress has been made, and China has been at the forefront.

The barriers to investment are now lower, the recognition of the need to act is now clearer and the willingness to change is now evident. The focus is how that change is made to happen.

The G20 has a vital role to play. ■

GENDER PARITY IN THE GLOBAL WORKFORCE – AN ECONOMIC DRIVER

CHRISTINE LAGARDE
Managing Director, IMF

Gender parity is an important. but elusive goal. Globally, only about 55 percent of women are in the labor force, and gaps in labor force participation between men and women reach from about 12 percent in sub-Saharan Africa to 55 percent in the Middle East and North Africa.

In November 2014, the G20 governments pledged to reduce this gap by 25 percent by 2025, which could create up to 100 million new jobs for the global economy. This has had some notable effects over the past year: many countries are accelerating reforms, the private sector is showing support, and policy actions are showing visible results.

We at the IMF have been strongly supportive of these efforts. We have examined key constraints to gender equality in many of our member countries and provided policy advice to our member countries on their removal. As an organization whose primary mandate is to support macroeconomic stability and sustainable growth, we have good reasons for doing so:

- Gender gaps in economic participation restrict the pool of talent in the labor market and yield a less efficient allocation of resources. This lowers productivity and GDP growth.
- More women in the work force can mitigate the adverse effects of demographic change. Think of Japan, increasingly feeling the pinch from rapid population aging. This could be mitigated by more women joining labor force – now a key pillar under “Abenomics”.
- Gender equality goes hand in hand with better development outcomes. Women tend to invest a larger proportion of their household income into their children’s education.
- Gender inequality is strongly associated with income inequality – itself a drag on sustainable growth.

The incentives for action could therefore not be stronger. Here is what can be done:

Let girls and boys grow up with the same opportunities. In too many countries, gender gaps in education persist. Governments should both increase spending on education and improve its effectiveness—which has been our advice to countries such as Costa Rica, India, or Pakistan. Any public cash transfers that are being provided to households can be made conditional on sending daughters to school. And fixing poor infrastructure and transportation makes it easier especially for girls to attend school.

Bring down barriers to economic activity. While legal restrictions on women’s economic activity have been receding, analysis by the World Bank shows that about 90 percent of all countries still have at least one legal obstacle on the books. Having equal rights increases women’s bargaining power in the household and incentivizes parents to send their daughters to school. It would also help address constraints to finance: Women often face more restrictive collateral requirements, shorter maturity of loans, and higher interest rates than men. Removing discriminatory laws on property and inheritance rights can be a first step in addressing these challenges.

Eliminate impediments that force a choice between work and family. Some barriers women face in the labor market relate to personal and societal attitudes towards working women and their role in family. These need time to change, and policies cannot influence them easily. However, IMF research shows that compared to societal attitudes, fiscal and other policies account for a higher share of changes in female employment rates. For example, greater parity between paternity and maternity leave supports a more rapid return to work among mothers and shift underlying gender norms. Access to affordable, high-quality child care frees up women’s time for employment. And replacing family-based taxation with individual taxation would reduce the tax burden on secondary earners (mostly women), thus increasing incentives to join the labor market.

Mitigate the fear of retirement. Higher participation rates, smaller wage gaps, and pension systems which take into account women’s absence from the labor market due to childcare, would increase women’s income at retirement. This is critical to mitigate the risk of old age poverty. Given the demographic structures in many G20 countries, we also need to think about expanding care for elderly men and women.

The time to work together on the G20’s pledge is now. Leveling the playing field at every step of the game will not only make a historic change for women, it will help the global economy to achieve more sustainable and inclusive growth. ■

Women often face more restrictive collateral requirements, shorter maturity of loans, and higher interest rates than men. Removing discriminatory laws on property and inheritance rights can be a first step in addressing these challenges. ❞

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CREATING THE FRAMEWORK FOR CROSS BORDER TAX TRANSPARENCY

ROBERTO BERNALES
International tax consultant and Professor of Tax Law of the University of Deusto

A long way has been walked since 2009 when the new era in tax exchange of information started. Today there seems to be consensus between most jurisdictions in the world on the steps taken and the work developed by the Global Forum on Transparency and Exchange of Information and the OECD, and their implementation in the next future (i.e. the implementation of the exchange of information on request (EOIR) standard by 2017, and the automatic exchange of information (AEOI) standard, meaning the common reporting standard, CRS, referred to financial information, by 2018. Further, jurisdictions signing the multilateral Convention on Mutual Administrative Assistance in Tax Matters and the multilateral Competent Authorities Agreement for the CRS, as the complementary tool needed to facilitate the practical application of the Convention, are increasing thus making it possible the establishment of a robust tax transparency framework.

However, to enable a real cross-border tax transparency some elements should be strengthened and other elements should be included in the current framework.

The AEOI should be expanded not only to financial information and country by country reporting but also to beneficial ownerships. It is clear that the implementation of the beneficial owner information standard is not working properly. Further, in too many cases trusts, foundations and other similar arrangements seem to be out of the set of rules created to guarantee tax transparency. A common approach to this issue from common law and civil law jurisdictions, avoiding the existing reluctances between them, is needed in order to guarantee real tax transparency.

If we want the legal framework to be more than a formal structure that can be easily avoided, a step forward should be taken in order to implement a system where tax authorities shared their tax rulings provided to their multinational taxpayers (in line with the new EU directive). Experience shows that the lack of transparency on tax rulings can be exploited by certain companies to reduce their fair tax contribution, with the complicity of some governments which play a disloyal role to the international community and, even worse, to their own taxpayers.

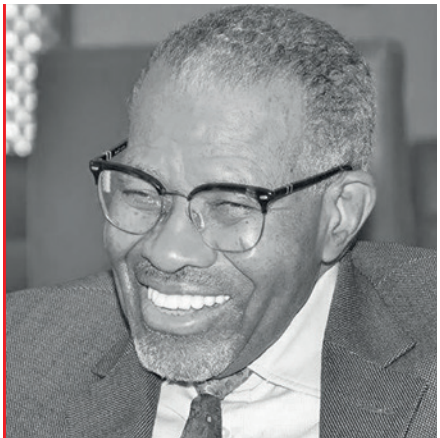
Governments should send a clear message on their commitment to the new framework by restricting to the minimum investment coming from jurisdictions which do not respect either legally or factually the new transparency standards. Companies using those types of jurisdictions should be penalized to the maximum in their options to enter into public contracts with federal, state and local governments.

Professionals of tax advising and planning should take a more active role in the building of the new framework. They seem to have been on the defensive more than playing an active role in building the new framework. This is understandable considering that they are seen in many cases as the facilitators of international tax avoidance. It is time to consider international common standards of tax advising and planning that should be developed and implemented by the bodies representing these professionals. Maybe we need to monitor these professionals (OECD dixit) but we also need their loyal contribution to the new framework.

A thorny issue that will have to be confronted sooner or later from a common perspective is the situation of whistleblowers. Their information has given a dramatic impulse to the acceptance of the new standards. Governments have used extensively the data provided by them. However, there are borders that cannot be trespassed without violating certain rights. In the future, a common standard on the balance between those rights and the right of civil society to protect itself against those who do not pay their fair share of taxes should be found. As a general rule, as it happens with other criminal offences, those providing information on tax offenders should be protected, not prosecuted.

Enabling a new framework of tax transparency should also respect taxpayer human rights. The implementation of that framework should not forget the concern about taxpayer privacy and procedural guarantees. The international community should be able to reach a common standard also on this important issue. ■

THE ROLE OF ISLAMIC FINANCE TO STRENGTHEN INTERNATIONAL TRADE



DR. AHMAD MOHAMED ALI
President, Islamic Development Bank, Jeddah, Saudi Arabia

World trade growth has been sluggish since the global financial crisis of 2008-2009. Average annual trade growth slowed from more than 7% during the period before the global financial crisis to less than 3% during 2012-2015. Much of this disappointing trade performance can be explained by sluggish global GDP growth.

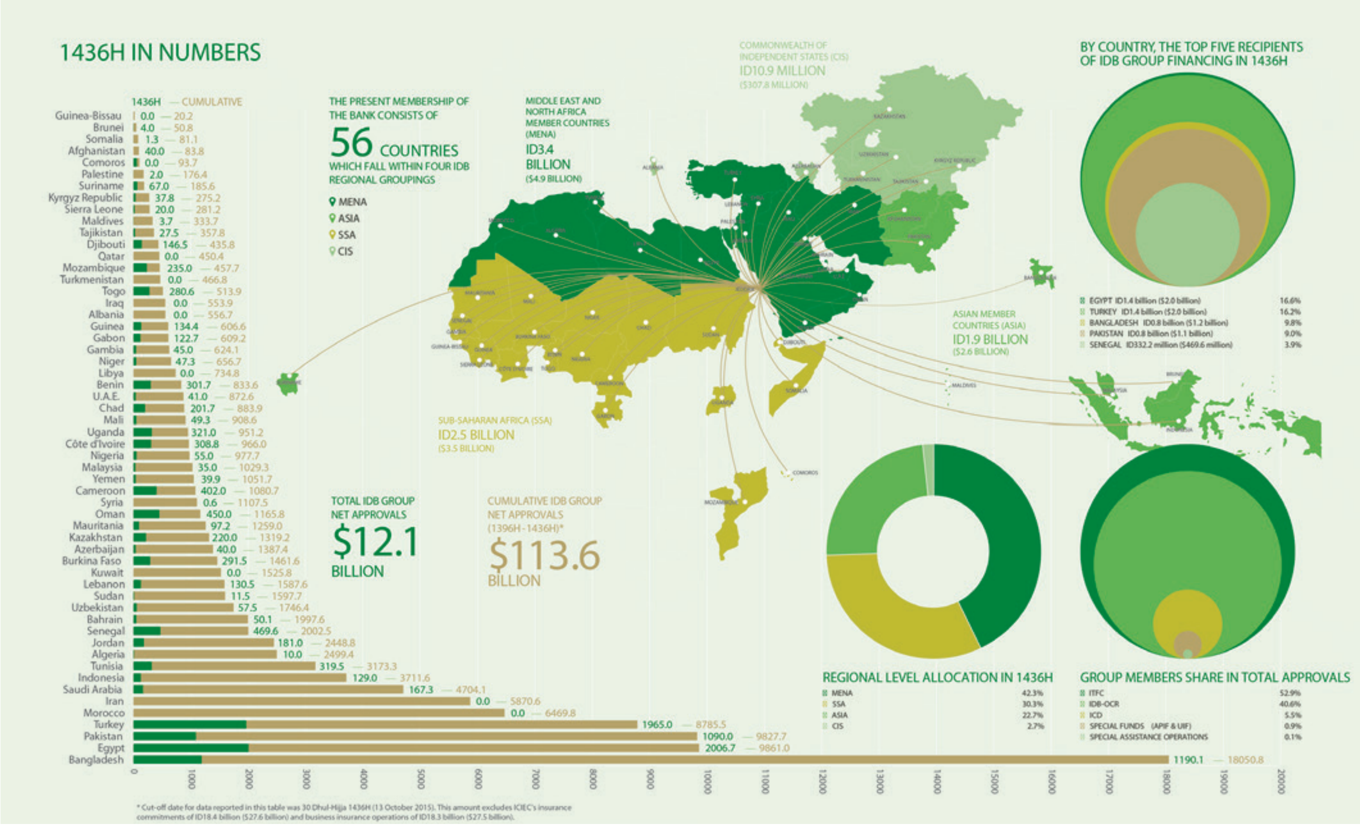
But the decline of world trade since the financial crisis is also related to the reduced availability of trade finance. The financial crisis hit hard a number of major financial players and impaired the ability of banks to lend money. Although the initial credit crunch eased after the major central banks rolled out unprecedented policy measures to boost global liquidity (including quantitative easing and negative policy rates), the new, tightened regulatory regime for the banks will continue to limit availability of financing in the foreseeable future. The new regulatory measures, that have caused the banks to tighten eligibility criteria, include higher capital requirements under the Basel III accord that are scheduled to come into force by 2019. Other such measures are the new and tighter regulations to combat financial crime such as money laundering and corruption.

The prospects for global trade have deteriorated even further over the past three years as a result of an unexpected decline in oil prices, appreciation of the US dollar, a growth slowdown in China, and the start of monetary policy normalization in the United States. All these shocks have increased uncertainty about global economic prospects and increased reluctance to commit financial resources. Global trade expanded only 2.8% in 2015 and its growth is expected to remain below the long-term average of 5.1% in the next two years.

Over the past two decades, trade liberalization has been associated with higher growth, investment, job creation and human development. A remarkable progress by developing countries in all these areas has come hand in hand with increase in their share in global trade from 28% to 42%. It would be therefore fair to say that trade is a key ally in the fight against poverty, especially if additional measures are taken to improve education levels, strengthen governance and deepen the financial sector.

Trade finance to boost global trade

By providing working capital and reducing the payment risk, trade finance plays a vital role in supporting cross-



> Trade is a key ally in the fight against poverty, especially if additional measures are taken to improve education levels, strengthen governance and deepen the financial sector. ”

border trade transactions. The letter of credit is one of the oldest and most common trade finance instruments used by the banks to reduce payment risk.

According to WTO (2015), nearly 80% of world trade relies on trade finance and credit insurance. Although there is no official data on the total size of global trade finance, existing studies estimate that some US$6.5–8 trillion of trade finance was provided in 2011. The Asia-Pacific region accounted for more than 50% of the total, while Europe accounted for nearly 25%.

With the ongoing economic slowdown and increasing uncertainty at the global level, access to international trade finance has deteriorated considerably and financial institutions are finding it hard to meet existing demand. Small and medium-sized enterprises have become especially constrained.

According to the recent WTO report, the estimated size of the trade finance gap ranges between US$ 110 and 120 billion in Africa and over US$ 1 trillion in Asia. By filling the trade finance gap, millions of people and thousands of businesses across the world could unleash their economic potential.

Against this backdrop, it is incumbent upon the multilateral development banks (MDBs) to keep the supply chains financed. With increased pressure on the global financial markets, demand for MDB support is likely to increase further. This is why the MDBs need to look beyond their traditional methods of mobilizing resources, and explore alternative financing mechanisms such as Islamic finance in order to support trade and achieve higher economic growth results.

Islamic Finance: High potential

Considered as one of the fastest growing segments of the global financial industry, Islamic finance industry has recorded an impressive growth rate of around 15% during the past two decades. The current size of the Islamic finance market is estimated at $1.8 trillion, and expected to reach $3.4 trillion by the end of 2018. About 73% of the Islamic finance assets are held by Islamic banks.

Most of the Islamic finance assets are located within the 57 member countries of the Islamic Development Bank (IsDB). Among them, Malaysia, Qatar, Saudi Arabia, Iran, Kuwait, Pakistan, UAE, Bahrain, Indonesia, and Jordan account for the major share of the Islamic finance market, but the industry's geographical presence has now grown to include new players in Europe, Africa, East Asia and the Americas.

With preferences among the Muslim populations shifting towards more Shariah-compliant banking, Islamic finance has grown and developed to include a number of new trade finance products, listed in Table 1.

With a combined GDP of US$ 6.7 trillion and a population of 1.7 billion, the IsDB member countries have the potential to become an engine of global trade. Many of the 57 IsDB member countries are among the world's largest exporters of strategic commodities, such as oil, natural gas, wheat, rice, and cotton. They are also among the world's largest importers of food and agricultural products, various consumer goods as well as machinery and equipment.

Moreover, evidence shows that Islamic finance could be more resilient to external shocks than conventional finance. This is because of the emphasis on risk sharing, which reduces leverage and leads to better risk management. Islamic finance is also based on ethical principles that prohibit speculation and exploitation. With these values, Islamic finance has the potential to strengthen financial and social stability, and foster comprehensive and inclusive human development.

Import Financing	Export Financing
Documentary Credit Wakalah Murabahah Musharakah Shipping Guarantee Murabahah Working Capital Islamic Bankers Acceptance Foreign Inward Bills for collection (FIBC-i) Domestic inward Bills for collection (DIBC-i)	Inward Letter of Credit Islamic Factoring Islamic Bankers Acceptance Islamic Credit Export Financing Islamic Export Credit Re-financing (pre-shipment) Islamic Export Credit Re-financing (post-shipment) Accepted Bills-i Foreign Outward Bills for Collection- i Domestic Outward Bills for Collection-i Debt Trading Working Capital Financing

Table 1. Islamic Trade Finance Products — Source: MIFC

IsDB's role in promoting trade finance

The importance of trade finance as a key driver of economic growth. Trade finance has always been one of the main areas of the IsDB Group's operations, and despite a dramatic contraction in global trade flows in recent years, the IsDB Group has remained very active in this area. The cumulative trade financing approvals of the IsDB Group stood at US$ 61.4 billion, with intra-OIC trade financing accounting for more than 70% of the total.

The IsDB was the first international development institution to adopt a program to finance trade and to promote trade between its member countries. In this context, the Bank established the International Islamic Trade Finance Corporation (ITFC) and the Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC) to promote the economic development of member countries through the expansion of international trade.

The activities of the ITFC include financing of intra-regional trade, in accordance with the Islamic principles, and development of the export capacity of the member countries through its Trade Promotion and Cooperation Program. Since its inception, the ITFC has extended nearly US$ 30.5 billion in trade financing, of which it allocated nearly 47% to the least developed member countries. It has also organized and supported more than 200 operations in the areas of development and trade facilitation. The ITFC also contributed to the aid-for-trade initiative--one of the global initiatives aimed at strengthening the capacity of developing countries to participate in and benefit from international trade.

Conclusion

International trade has a key role to play in promoting economic growth and, ultimately, helping to alleviate poverty in developing countries.

In this respect, additional efforts are needed to develop and improve the export capacity of developing countries by fostering investment in their infrastructure, transport networks and education, and by facilitating productive foreign direct investment into the export-oriented sectors of the economy.

To the extent that many developing countries continue to face challenges that prevent them from accessing conventional trade finance, there is also a need to explore all new, alternative trade finance options.

> The ITFC also contributed to the aid-for-trade initiative - one of the global initiatives aimed at strengthening the capacity of developing countries to participate in and benefit from international trade. ”

The contribution of Islamic finance will be critical in this context. With its growing role at the global level, it provides new and innovative ways for the financial institutions to diversify their sources of funding. Furthermore, given the wide range of Islamic financial products that the banks can now offer to importers and exporters, Islamic finance can help ensure that global trade continues to expand and fosters economic growth, especially among small and medium sized enterprises.

The IsDB Group will continue its efforts to provide innovative Shariah-compliant financial solutions to ensure that millions of people across the world are able to benefit from growth opportunities offered by international trade. The Group will also continue to make sure that international trade brings about growth that is inclusive and does not leave any section of the society behind by facilitating targeted, solidarity based interventions aimed at the most vulnerable segments of the society. ■

MITIGATING CLIMATE CHANGE WITH LOW CARBON INVESTMENTS

Last year's United Nations Climate Change Summit in Paris concluded with the adoption of a momentous agreement between nearly 200 countries to limit global warming below 2°C, clearly signaling that the world is ready to take a step in the right direction to mitigate climate change. Though primarily a political signal, the agreement has increased pressure on companies along with investors.

One major message of the climate change conference was that carbon emissions will no longer be economically justifiable in any business model in the future. In recent years, it has become apparent that fossil energy has no bright investment future. Long-term investors in particular are becoming increasingly aware of the risks climate change presents to their assets. Several leading institutional investors, like the Norwegian Sovereign Wealth Fund or Allianz Group, have decided not to invest in businesses relying on fossil energy.

This decision is forward-looking: A change towards a more sustainable investment approach is also demanded from governmental side. In 2015, France has introduced mandatory carbon reporting for portfolios of pension funds, insurance companies and other institutional investors. Other countries want to implement similar obligations as governments are pushing hard. Obviously, institutional investors are expected to reflect the growing concerns about climate change in their portfolios.

So far, however, it has not been as easy to implement sustainable investments. Pension funds for example are often obligated to follow a pre-defined benchmark. As a result, and in order to avoid undesired tracking errors they can only rely on indices that embed low carbon filters. Some investors may want to get the most out of the leading sustainable companies only, while others would consider companies and their whole supply chain additionally.

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and transparent tools to facilitate the implementation of sustainable investment strategies.

Climate change risks and opportunities hidden in supply chains

According to CDP, the companies' own emissions often account for just 15 to 25 per cent of the total emissions across their supply chain, a fact not considered in the majority of cases. There is a small group of companies that besides implementing programs to reduce their own emissions, also employ strategies to reduce emission of their whole supply chain. These companies are rewarded with a place on CDP's A list, based on their emissions reduction actions and results. This group is recognized as being the most transparent and fact based. The selection criteria are strict: Just 113 companies worldwide were included in the 2015 A list. Investors can invest in this holistic approach with the help of the STOXX Global Climate Change Leaders Index. Hence, they can support the forward-looking, effective strategies and significantly reduce climate risks in their portfolio straightaway. The index has reduced carbon emissions by nearly 80 per cent with annualized returns of more than nine per cent over the past three years.

Reliable and independent data as the basis for sustainable indices

Reliable and certified data are the basis for any low carbon strategy. Yet, many investors do not have the time and expertise to analyze the carbon emissions of every company or do not have access to all necessary data. Therefore more than 800 investors, who account for more than one third of assets worldwide, rely on the data of CDP – the former Carbon Disclosure Project – a leading international non-governmental organization. CDP manages the world's largest database of its kind with information on more than 2,000 listed companies. Its data helps investors to analyze the environmental risks and financial opportunities across their portfolios.

STOXX partnered with CDP to use their dataset of corporate environmental information as a high-quality source to calculate the STOXX Low Carbon index family that was introduced earlier this year. The index family provides various strategies from reweighting broad benchmark and blue chip indices such as EURO STOXX 50 and STOXX Europe 600 by overweighting low-emitters and tilting away from high-emitters, all the way to options to divest from high carbon emitting companies. They are efficient

The UN Climate Summit has underlined the importance of minimizing global carbon emissions in the future. Many governments and companies are aware of their responsibilities and investors can support their efforts. Passive investing is a crucial part of being prepared for future investment requirements. Low carbon index strategies do not only cater to a social responsible investment approach, but have shown to perform similar or even better than their traditional counterparts. ■

> Some investors may want to get the most out of the leading sustainable companies only, while others would consider companies and their whole supply chain additionally. ”

THE OECD-G20 PARTNERSHIP ON TAX

GABRIELA RAMOS
OECD G20 Sherpa

The outstanding results delivered over the last decade to progress the international tax agenda would not have been possible without the partnership established between the OECD and the G20 in this area. In just 7 years, we have seen the development and global adoption of the tax transparency standards to combat tax evasion, as well as the delivery of a comprehensive package of measures to update the international tax rules and tackle BEPS (Base Erosion and Profit Shifting). Setting standards and making commitments to implement them is just the start of our work together however. This year, the focus of the international tax agenda has shifted to implementation of these standards, while the G20 members are also working with the OECD to consider how tax policy can be used as a tool to achieve their broader objectives of strong, sustainable, balanced but also innovative, clean and inclusive growth.

The impact of tax evasion and the use of offshore structures to hide the true ownership of assets was brought back to the headlines this year with the release of the "Panama Papers". More than ever it is clear that with robust tax transparency standards now established, the focus of OECD and G20 efforts must be on ensuring their consistent and global implementation – no country should be able to benefit from failing to meet their international commitments and there should be "no place left to hide". Reinforcing their efforts in this area, the G20 Finance Ministers endorsed in July the objective criteria developed by the OECD to identify non-cooperative jurisdictions (against which defensive measures will be subsequently considered by the G20), while we also saw key remaining jurisdictions commit to implement the automatic exchange of financial account information no later than 2018. More than 100 countries and jurisdictions have now made that commitment, and the OECD and G20 members have agreed on the procurement of a common transmission system that will be available to all interested countries for the secure, global exchange of this data. To the benefit of our citizens and of our public finance, the near prospect of automatic exchange of tax information has already generated around 50 billion euros in additional revenues through voluntary disclosure

> More than ever it is clear that with robust tax transparency standards now established, the focus of OECD and G20 efforts must be on ensuring their consistent and global implementation. ❞

programme. Meanwhile, the OECD continues to work intensively with the Global Forum on Transparency and Exchange of Information for Tax Purposes, starting with its developing members, to provide all jurisdictions with tools and practical guidance adapted to their circumstances to exchange tax information effectively; and, partners with UNDP and several advanced economies, in the framework of the Tax Inspectors without Borders initiative, to provide assistance to tax administration in developing countries.

In parallel, since 2013, the OECD and G20 have joined forces again to tackle the loopholes and mismatches in the international tax rules that facilitated the shifting of corporate profits away from the locations of the underlying economic activity and value creation, and often into low or no-tax jurisdictions through Base Erosion and Profit Shifting – in effect leading to the double non-taxation of profits posted by big corporations. With the agreement by the G20 on a package of measures to counter BEPS in October 2015, the OECD and G20's work on this issue has now moved into a new phase this year, opened up for the direct involvement, on an equal footing, of all interested countries and jurisdictions to work together on this global issue. This new Inclusive Framework on BEPS had its inaugural meeting in June in Kyoto, with 85 countries and jurisdictions now committed to implementing the BEPS package and working together on its remaining elements and implementation. A critical part of this stage of the OECD/G20 BEPS Project will be the monitoring of implementation of the 4 agreed BEPS minimum standards, tackling core issues such as tax treaty abuse and harmful tax practices relating to preferential regimes and lack of transparency around tax rulings issued by governments.

2016 will also mark a new frontier for the OECD-G20 tax partnership, with the G20 Tax Symposium that took place in Chengdu, China, in July, in the margins of the G20 Finance Ministers meeting, dedicated to exploring tax policy tools to support innovation and inclusive growth, as well as to ensure tax certainty that will facilitate trade and investment. The Symposium, hosted by China and Germany (incoming G20 2017 Presidency) with OECD's support, facilitated a dynamic discussion between Ministers who identified a number of key areas of future work, and asked the OECD to work with other relevant international organisations to further explore these potential tax policy approaches in a series of report to be delivered in 2017 and beyond and to make relevant policy recommendations to the G20 membership in those areas.

The progress emerging from the OECD-G20 partnership on tax continues to dramatically alter the international tax landscape, ensuring that it is fit for the 21st century. The challenges ahead are not only to level the playing field by ensuring a widespread and effective implementation of existing standards, but also to shape the tax policy tools of the future that will establish new paths for growth in our global and inter-connected economy. Our continued commitment to work together and embrace a global dialogue on these issues will pave the way for better policies for better lives, OECD's mantra. ■

G20: ASPIRING TO A COMMON TAX LANGUAGE

CHRIS SANGER
EY Global Tax Policy Leader

Building a better working world

The G20/OECD Base Erosion and Profit Shifting (BEPS) project has been yet another indication that tax operates in an ever more connected world. Bringing together the differing perspectives on taxation, and coalescing them around 15 Actions, was an achievement that would have been unthinkable even a decade ago. Yet it, and many other initiatives, now exist above the remit of the individual governments, striving to bring greater alignment and coherence to the world's varied tax systems.

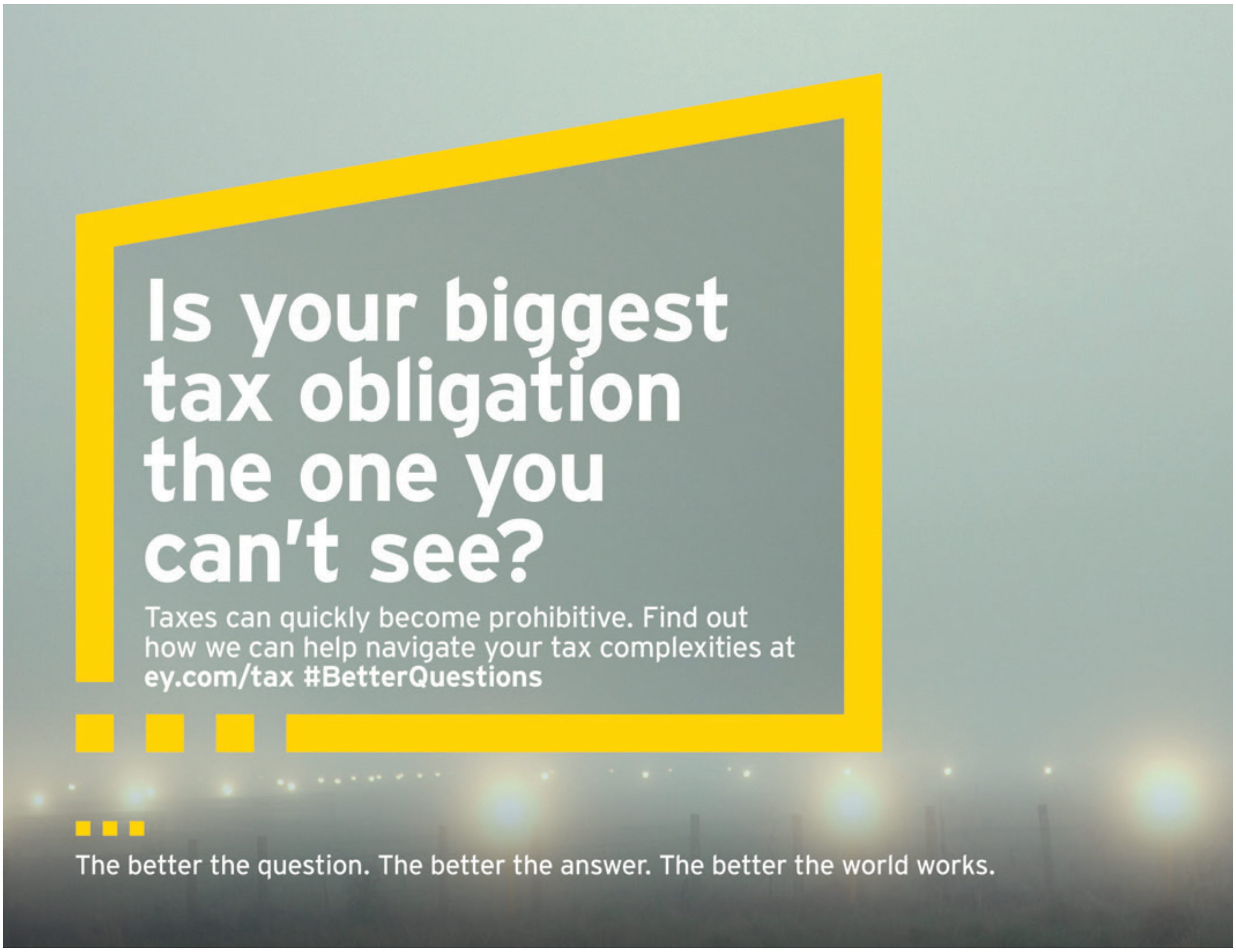
Such alignment brings real benefits for governments, but also offers the appetizing prospect for businesses of tax systems that are more coherent. Reducing disparities should reduce situations in which tax has the potential to complicate commercial decision-making, something most business leaders would welcome.

Transparency demands communication

The benefit of alignment has made the role of the G20 and the international organizations even more important, as they help to bring together the various parties. However, it also has changed the role of the tax director. While they have always needed to be good at understanding the many and varied tax provisions, the discussion of BEPS and other topics has required them to become good communicators and diplomats, able to explain the approaches undertaken by their businesses but also to understand the perspective of governments.

Today we have a much greater focus on transparency, not only as a result of the BEPS country-by-country reporting requirements, but also the wider provisions on exchange of information. We now have over a hundred jurisdictions committed to operate Automatic Exchange of Information (AEOI). In this new landscape, those communication skills are going to be in ever greater demand.

Such transparency is set to increase, as seen at the G20's recent meeting in Chengdu which focused on tax transparency objectives and reform progress generally. Here representatives restated the call for automatic exchange of information by 2018. China's Finance Minister, Lou Jiwei, also supported the development of a new international tax environment and China's release of new guidance on 29 June 2016 formally introduced country-by-country reporting.



Amid great change, it is sensible, however, to regularly pause and consider areas of risk and concern. While there are real benefits in increasing transparency between the taxpayer and the tax administration, and between tax authorities, calls to go further – in the direction of public disclosure of taxpayer data – require far greater consideration. As the German Finance Minister Wolfgang Schauble warned, "sometimes there is a contradiction between transparency and efficiency".

Technology overhaul: businesses need to be data-ready

This desire for transparency of data comes at a time of technological revolution, meaning that the tax administrator and the tax director of tomorrow will also need to be a technologist. Given BEPS and AEOI, a mechanism is needed by which data are gathered and shared in a way that is consistent with the aspirations of BEPS but also does not impose a disproportionate burden on the taxpayer.

There are, however, great opportunities here, and there is now a strong role for the G20 in helping countries to align with simple systems that deliver transparency with the minimum level of burden, repetition or cost. Businesses need to play an active role in helping to develop how the future will look, as the choices they make will impact the ease with which information can be provided.

> While there are real benefits in increasing transparency between the taxpayer and the tax administration, and between tax authorities, calls to go further require far greater consideration. ❞

Investing in technology will certainly make compiling and sharing information easier for companies and governments alike. But businesses in particular should ready themselves for this new environment. Not least, they would be prudent to introduce a data infrastructure that will accurately meet the information requirements, and consider the system and process changes that will need to be put in place. Data can be misinterpreted, so they will also need to plan for how they will present it clearly in the context of their businesses when responding to tax authorities.

So, as the G20 reflects on how much is being achieved through BEPS, it needs also to look to the future and plan how it can help drive this forward coherently. Delivering this is no small task, and a challenge that may yet be greater than the ones met to date. What is for certain is that it requires all of us to hone our skills in these three key areas: taxation, communication and technology. ■

G20 in the year 2016

A sound tax policy is indispensable to balanced economic growth

In 2016, China holds the presidency of the G20, and the G20 Summit will be hosted by China on 4 and 5 September in Hangzhou. Established as a platform for cooperation between developed, emerging economies and developing countries, the G20 addresses global economic and social issues and recognizes the role of tax policy in achieving sustainable economic growth and the importance of the creation of a fair and modern international tax system. On 23 July 2016, a ministerial-level G20 Tax Symposium discussed how to better use tax policy tools to drive strong, sustainable and balanced growth. Together with the OECD, the G20 initiated the BEPS Project and is currently monitoring its implementation now that the final reports of the project have been released and the countries involved have been requested to follow the recommendations.

In combating BEPS, the G20 and the OECD have involved the developing countries on an equal footing. As the largest newly industrialized country in the world and a member of the G20, China is committed to supporting the BEPS Project and has made its own contribution by establishing an international tax policy research centre, which offers technical assistance to developing economies.

During the upcoming G20 Summit, the global economy and financial order will be discussed. The Summit will enhance global cooperation and contribute to sound global economic growth. The BEPS Project is still high on the policy agenda of the G20. It is likely that a fair international tax system will again be one of the issues addressed at the Summit.

China and the BEPS Project

In recent years, China has modernized its tax system in a rapid tempo in order to meet the needs of a new economy. China realizes the interdependence in the globalized world and the importance of international coordination and cooperation. From the outset, China has been heavily involved in the BEPS Project of the OECD. In the meantime, China has started to incorporate anti-BEPS measures in its domestic tax regulations and tax treaties. For example, China has adopted country-by-country reporting in its circular SAT Gong Gao [2016] No. 42 on transfer pricing documentation and included a limitation-on-benefits clause in its tax treaty with Chile of 2015. One of the other BEPS problems that the OECD intends to address is the indirect transfer of (equity) interest, which has been at the heart of Chinese anti-tax avoidance policy and regarding which the country has handled hundreds of cases and gained a lot of experience.

China is increasingly becoming a country that not only gains experience from other countries, but also shares

Future

There is no doubt that IBFD will continue to commit itself to supporting China in its endeavour of modernizing the tax system, particularly the international taxation aspects, and will continue its activities in the coming years. IBFD will grow along with the rapid development of international taxation in China, which will, considering the size of the Chinese economy and expansion of outbound investments, play a vital role in the global international tax community.

its experience and best practices with other countries, in particular developing countries.

IBFD China office

IBFD and the State Administration of Taxation (SAT) of China have a long-lasting working relationship. At the end of the last century, China was developing its tax system to cope with the increasing number and significance of foreign direct investments in China. In 2008, China introduced its current enterprise income tax partly based on the study of foreign tax systems and foreign experiences. IBFD has played an important role in that process by establishing the China Project, a platform in which foreign investors and tax legislators/officials discussed the tax issues related to the new law, and by providing courses and trainings for tax officers who were involved in the design of the new law. Since then, IBFD has become a reliable partner of the Chinese tax administration with regard to cross-border taxation.

In 2009, IBFD decided to open an office in Beijing in order to adequately respond to the rapid tax developments in China. Since then, IBFD has expanded its activities and built up a solid brand in the tax community in China. IBFD products are used by an increasing number of universities, tax authorities and corporations.

Tax lectures

To carry out its mission, the IBFD China office organizes an annual tax lecture, either in Beijing or Shanghai. The aims of the lecture are to disseminate international tax knowledge and discuss the cutting-edge international tax issues prevailing in and outside China. As a result, attendees, who come from universities, tax administrations, industry and practice, will gain a better understanding of the complexity of recent tax developments. Attendees are also offered the opportunitiy to meet tax officers and other tax peers to exchange views on issues of interest. In the past 6 years, the tax lectures have proven to be a great success, and it is acknowledged that IBFD has made tremendous contributions to the development of international taxation in China through its lectures and products.

In 2016, the tax lecture will be held on 13 October in Shanghai and will once again feature distinguished speakers, including IBFD tax expert Stef van Weeghel (Chairman of IBFD Board of Trustees, Global Tax Policy Partner of PwC and Visiting Tax Professor of the University of Amsterdam) and Zhang Zhiyong (former Deputy Commissioner of SAT and Tax Professor of Xiamen University). We look forward to welcoming our loyal clients and friends.

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G20 LABOUR & EMPLOYMENT MINISTERIAL MEETING

Statement at Session on Dialogue with Social Partners and Engagement Groups | Beijing, China | 12 July 2016.

GUY RYDER
Director-General, International Labor Organization

Thank you Minister Yin, I very much appreciate the decision of the Chinese Presidency to organize this session with the L20 and B20, as well as the other outreach groups.

Tripartite consultation and social dialogue have played a major role throughout the world in periods of economic crisis and post-crisis.

This is of course very natural. Workplaces everywhere are governed not just by the laws, regulations and policies governments adopt but also by the rules and processes established by employers and workers themselves, as they endeavour to make sure that work is performed productively, safely and fairly. Employers and workers can together maximize the benefits of innovation and make sure its fruits are shared justly.

So good employer-worker relations are essential to the workplace and therefore to the broader economy as well.

But that does not happen automatically.

As has been reaffirmed on many occasions, including last month at the International Labour Conference, sound employment relations are founded necessarily on respect for fundamental principles and rights at work and the pursuit of social justice.

And living in yet another post-crisis world right now, in which we face formidable economic and labour market challenges including widening inequality, social dialogue needs to play a role in the solutions that we implement.

So it is most welcome that G20 Ministers, with the leadership of China, have this year decided to stress the significance of social dialogue in the formation and implementation of good policies.

The joint IOE/BIAC – ITUC/TUAC Statement is impressive, both in the quality of its recommendations to Ministers but also in the commitment it makes regarding action by business and labour. It shows the power and creativity of social dialogue and the potential of social partner agreements for steering a way forward in difficult times.

I find particularly significant their affirmation that freedom of association and the effective recognition of the right to collective bargaining are key to promoting and supporting social dialogue, especially for the efficient structuring of labour markets and working conditions. Indeed the very same determined affirmation has been expressed every time the International Labour Organization has addressed a watershed moment in history.

Governments and the social partners today face daunting challenges.
To name but a few:

- eradicating extreme and working poverty and reducing inequality;
- stopping the degradation of the planet;
- maintaining open economies and societies that respect and value diversity
- shaping the future of work during a period of rapid technological change.

Against this backdrop, the importance of social dialogue in all of its dimensions – be it tripartite consultations, collective negotiations or workplace cooperation – cannot be overemphasized as a way to diffuse political and social tensions and to create sustainable solutions to them.

And I think it would be appropriate if this exchange today were echoed nationally so that country-level social dialogue can support follow-up to the Ministerial Declaration that will be adopted.

The ILO is similarly encouraging governments and the social partners to make full use of social dialogue arrangements for discussions around the implementation of the UN 2030 Agenda for Sustainable Development. Inclusive and decent work are important drivers of sustainable development and will need to feature prominently in the national sustainable development strategies that member States are called upon to fashion.

Ministers, dialogue is essential both to resolve conflicts and also build consensus on the way forward. The leadership of the G20 Ministers, and the support of the L20 and B20, in promoting social dialogue will no doubt be extremely useful for Leaders themselves at the Hangzhou Summit in September. ■

It is most welcome that G20 Ministers, with the leadership of China, have this year decided to stress the significance of social dialogue in the formation and implementation of good policies. ”

INSPIRING TALENT STRATEGIES BY FOSTERING EMPLOYABLE SKILLS

A blueprint for aligning education to companies' needs.

ALAIN DEHAZE
CEO of The Adecco Group
@AlainDehaze

Few countries better illustrate the challenges facing governments trying to shape their workforces than China. With a labour force of 804m, the most populous nation on Earth wants to shift from an export driven model based primarily on investment in infrastructure and capital goods to a more balanced economy featuring with greater domestic consumption.

That, of course, is easier said than done. For China, like almost all its less populous peers, needs to nurture workers with the right mix of talents for the future. Even in China, with its vast human resources, employers are starting to complain about specific shortages.

That mismatch is not unfamiliar. Globally, some 73m youngsters are without jobs, just as 40% of employers say they cannot find people with the right skills. Such a misalignment spells a lack of prospects for millions of people and subpar growth for all.

As the world's leading provider of HR solutions, the Adecco Group sees every day the urgency of adjusting education and employment policies to meet future needs. We are all living longer, just as birth rates are falling. By 2030, the surplus of labour evident today will have turned into a massive shortfall. By 2035, those aged 65 and above will be the fastest growing slice of the population. The effect will be particularly acute in countries like China (labour shortfall of 24.5m by 2030) and Germany (10m shortfall). More than ever, countries' openness to labour mobility will affect their ability to tackle the skills gaps and productivity issues of an ageing population.

Secondly, the composition of the global workforce will change. Demand for labour, combined with an ageing population and ever better healthcare, will see mature workers postponing retirement. Employers will for the first time be facing three or even four different generations at work. And for governments – not just in Beijing, Berlin or Tokyo – activating the mature workforce will be crucial to addressing employment challenges.

As a member of the Employment Taskforce of the B20, the Adecco Group supports the four Recommendations to the Governments of the G20 countries to implement programmes to encourage entrepreneurship and innovation, remove structural barriers and enact support mechanisms to increase youth employment participation. And we back the initiatives to increase the female labour force participation rate and to assess and reduce the skill mismatch and workforce capability gap.

We have one particularly high priority, and that is education, training and lifelong learning. As digitalization and automation advance, high quality education is essential to boost employable skills. Talent gaps show new skills are needed to support economic development. 'Quality education' – which we define as that able to match skills and market needs – plays a decisive role in a country's competitiveness. To ensure the workforce meets market requirements, it is imperative to improve co-operation and alignment between education systems, businesses and employers.

That includes public-private partnerships to create the "quality education" systems needed to produce the skills markets require. Talent strategies must be guided by the concept of "employable skills" involving structural co-operation between governments, education systems and businesses. Initiatives Zlike the Global Apprenticeships Network (GAN), a coalition of institutions, employers' organizations and businesses, exemplify such co-operation.

Young people also have a part to play. They must focus on the emerging sectors, develop soft skills and embrace mobility. As volatility becomes the constant in life and work, the value of soft skills like creativity, problem solving, and empathy becomes ever more important.

And learning does not stop the day we leave school, apprenticeship or university. It is a lifelong process, involving skills being refined throughout a career. That applies across the board: disruption and technological change do not spell the extinction of the historian or classical scholar. But they, too, will have to keep learning, or get left behind. ■

The Adecco Group supports the four Recommendations to the Governments of the G20 countries to implement programmes to encourage entrepreneurship and innovation. ”

Attitudes towards mobility and diversity will also have to adjust.

Thirdly, flexibility will become more important than ever for companies to stay competitive. A contingent workforce is decisive in addressing businesses' rising demand for flexibility. The need to make labour more supple will have to be reflected in regulation too. Labour market restrictions still stifle job creation in many countries. And educational systems that develop employable skills through, for instance, apprenticeships, remain sorely lacking.

Finally, technological change – and disruption – will be central. Digitalization has triggered a huge automation of labour: an estimated one in two jobs today risk being replaced by machines. The peril varies by country and hinges on individual governments' policies and investments: in low wage countries, such as China or parts of Eastern Europe, increased automation may even negatively impact cost advantages. Such a background calls for new growth models and an "upskilling" of the workforce.

ICD ENCOURAGES CHINA-OIC JOINT INVESTMENT OPPORTUNITIES

ICD
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Islamic Corporation for the Development of the Private Sector

The Islamic Corporation for the Development of the Private Sector ("ICD") is a multilateral development financial institution and is part of the Islamic Development Bank ("IDB") Group.

ICD was established to support the economic development of its member countries through the provision of finance for private sector projects, promoting competition and entrepreneurship, providing advisory services to the governments and encouraging cross border investments.

ICD has an authorized capital of $4 billion. Currently, the shareholders of ICD are the IDB, 53 Islamic countries and five public financial institutions.

In November 2014, Fitch rated ICD 'AA/F1+' with a stable outlook. In April 2015, Moody's assigned Aa3/P-1 rating to ICD with a stable outlook and in December 2015, Standard & Poor's assigned its 'AA' rating to ICD with a stable outlook.

ICD PRODUCTS AND SERVICES

1. Long and Short-term Financing

ICD finances private sector entities and greenfield or expansion projects directly through equity participation, the purchase of assignable bonds and term financing. ICD also extends short-term finance to cover working capital and/or raw materials requirements of private sector entities through Murabaha or Purchase and Leaseback for a tenor of up to 24 months. ICD can also play a role in mobilizing resources for financing a project through co-financing or syndication.

2. Developing Islamic Financial Institutions and Extending Lines of Finance

ICD strives to nurture and empower identified channel partners, by setting up or aiding existing development banks in driving development and growth in the Islamic world. This vertically leverages two key instruments in order to extend financial aid: Institutional Equities and Lines of Finance.

3. Advisory Services

ICD provides a wide variety of advisory services to governments, public entities and private entities of member countries with an aim to create the ideal environment to facilitate private sector investment and also to assist companies in achieving their potential. The range of services include assessing

the business environment of member countries, plus project finance advisory, raising funds though the issue of Sukuk, development of Islamic capital markets and encouraging the development of the business environment for SMEs.

4. Asset Management Services

ICD supplements its own balance sheet by sponsoring / creating private equity funds as well as other special purpose vehicles in order to provide the IDB Group and other investors with access to projects that provide commercial returns as well as meet the developmental needs of member countries. ICD acts as a fund manager and/or general partner with other fund managers to sponsor and create special purpose vehicles along with third party investors including but not limited to IDB and ICD; other Multilateral Agencies; Sovereign Wealth Funds; Government Funding Vehicles and High Net Worth Individuals.

CHINA & ICD

With a more inclusive foreign policy, including a renewed stance on the Middle East and Africa, Chinese president Xi Jinping has set the motion for greater China-OIC relations – with the 'One Belt, One Road' initiative a central pillar to China's grand strategy. In light of this development, in March 2016, ICD hosted its inaugural ground breaking event "China-OIC Forum 2016" in Beijing to connect investors and regulators from Asia, Africa and the Gulf with senior decision-makers of the world's second-largest economy.

At the side-lines of the landmark China-OIC Forum 2016 in Beijing, a memorandum of understanding (MoU) was signed between ICD and China-Africa Development Fund (CADFund), a Beijing-based private equity firm focusing on Africa. The MoU envisages enhancing trade and investment opportunities in 19 African countries through co-financing and co-investments, with the aim of promoting inclusive growth and financial inclusion. Research collaboration and capacity-building programs that are tailored and demand-driven will also be conducted to better serve target markets. In addition, efforts will be focused on boosting support for African small-and-medium enterprises (SMEs), widely recognized as an important economic driver and key contributor to sustainable GDP growth.

Furthermore, ICD and CNBM International Engineering Co. (CNBM-IE) have signed a MoU to conceptualize, develop and structure a global scheme for the development of social infrastructure projects in ICD's 53 member countries. Under the scheme, a Public-Private-Partnership (PPP) mode of development called "Design-Finance-Build-Lease-Transfer" (DFBLT) will be utilised in order to meet the funding gap. Under the early stages of the proposed DFBLT scheme, ICD will lead the global marketing and financing-arrangement activities, while CNBM-IE will conduct all Engineering, Procurement and Construction Management (EPCM) activities. It is envisaged that development financial institutions and donor countries including the industry players in the member countries will play a major role in the success of this scheme.

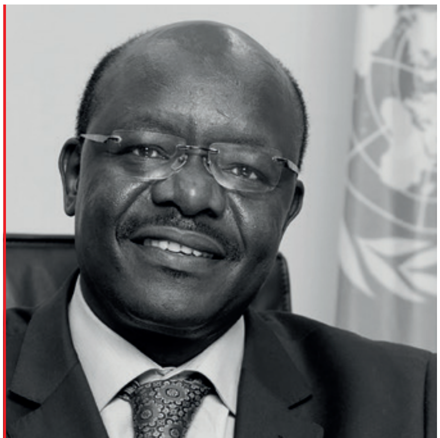
Since the 1970s, China has taken pivotal steps to integrate into the world market and its rapid rise from a high-growth emerging economy to a powerful global player has indeed been one of the most extraordinary feats of recent history. Over that period, the country has undergone a shift from a largely agrarian society to an industrial powerhouse, underpinned by economic reforms and the introduction of open-door policies. This process resulted in a rapid advance in output per capita, lifting millions of people out of poverty and establishing a thriving middle class. Currently the world's second largest economy, China offers a multitude of opportunities in which Islamic finance has a profound role to play.

In light of this context, ICD released its latest report entitled "China: The Time is Now" at the landmark China-OIC Forum 2016. The report entails three sections:

- **Section 1:** The History of China's Economic Development: "A Rocky Road from Socialism to Consumerism"
- **Section 2:** China's Economic Landscape: "Calibrating China's Economy"
- **Section 3:** Islamic Finance in China: "An Impetus to Growth"

INFRASTRUCTURE DEVELOPMENT

THE ROLE OF PUBLIC PRIVATE PARTNERSHIPS



MUKHISA KITUYI
Secretary-General of UNCTAD

UNITED NATIONS
UNCTAD

Financing infrastructure to accelerate transformational change is among the key challenges of the 2030 Agenda for Sustainable Development. Public investment continues to play a strategic role, but public budgets are often constrained and governments may lack required capacity. This has heightened expectations that public-private partnerships (PPPs) with the domestic and foreign private sector could furnish much of the $3.3 trillion to $ 4.5 trillion per year, which is the estimated need for basic infrastructure investment in developing countries alone (UNCTAD, 2014). In addition to bringing private finance to the table, PPPs also aim at sharing risks and combining private and public managerial and technical skills. However, it is important to keep in mind that there is insufficient empirical evidence to support the growing expectations placed upon PPPs, and governments should be cautious about viewing them as a panacea. A prudent approach creating dedicated expertise on PPPs in public institutions, supported by technical assistance from the international development community, can help PPPs to deliver their expected development benefits.

PPPs have been widely used in developed and developing countries. Private sector participation in infrastructure projects in developing countries has doubled since the beginning of the millennium. It amounted to about $164 billion in 2014 (Figure 1), roughly equivalent to overseas development assistance (UNCTAD, 2015). In 2014, among low – and middle-income countries, China had the second most PPP projects – hosting 50 projects with the largest amounts spent in transport and energy – just behind Brazil, down from its first position in 2013. India remained third both years. However, projects in China involved smaller investment amounts, with total PPP investment of $4.0 billion in 2014, in the 10th place, far behind Brazil ($57.6 billion) and Turkey ($14.4 billion).

PPPs are the most effective when public budgets are severely constrained and when the technical expertise provided by the private sector improves the effectivity of public service provision. But there is significant evidence of inherent limitations, liabilities and pitfalls (IEG, 2014; ECLAC, 2015; UNCTAD 2015). PPPs typically make only a small contribution to total

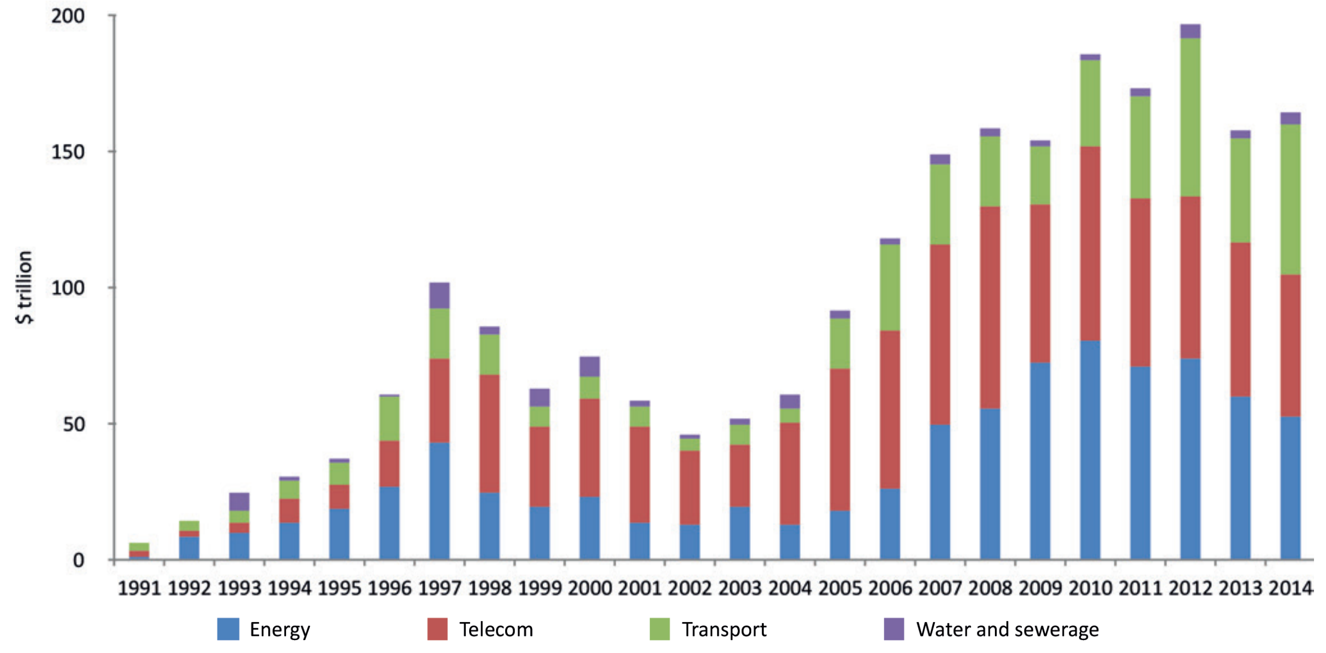


Figure 1

infrastructure development. Estimates of the public sector's share vary from between 70 per cent to 90 per cent, especially in low income countries. And PPPs seldom emerge where needs are greatest, such as in water and sanitation (Figure 1). They are also concentrated in larger more dynamic markets (such as Brazil, China, India, Mexico, Russian Federation and Turkey) and in telecommunications and energy projects where finance could typically be obtained by other means.

This means that growing use of PPPs has not relieved state responsibilities for investment in infrastructure development; governments still need to do the heavy lifting. Caution in assessing the long-term fiscal costs of PPPs is also warranted because downstream contingent liabilities are generally not quantified at the project level. Even when things go according to plan, government liabilities can arise in various ways, whether from formal commitments through contracts, or informally, stemming from the simple fact that governments are the providers of last resort. And when things go wrong, the fiscal costs can be high. Uncertainty in PPPs' fiscal implications is high because judging the risks involved in such projects is difficult due to a lack of standardized financial reporting. For example, this has prompted Brazil to introduce exposure limits for state and local governments and China to reduce the use of PPPs (UNCTAD, 2015).

PPPs remain a useful source of long-term financing for development, especially given the paucity of other resources. But it is important to understand fully the consequences and ramifications of their use and to be aware of potential future costs. This will require efforts to improve accountability and transparency on PPPs. An important step in this regard would be adopting transparent accrual accounting systems that make explicit the long-term investments and liabilities implicit in PPP structures. It is also necessary to improve decision making processes with respect to PPPs. Creating a dedicated forum for the sharing of experiences and expertise on PPPs may be useful, as well as building networks of developing countries for this purpose. Technical assistance by the international development community can also support efforts at the country level to help PPPs to deliver their expected development benefits. ■

1991	1	2	3	0
1992	9	2	4	0
1993	10	4	5	7
1994	14	9	7	1
1995	19	9	8	2
1996	27	17	16	1
1997	43	31	18	10
1998	25	43	15	2
1999	20	29	8	6
2000	23	36	8	7
2001	14	35	8	2
2002	13	27	4	2
2003	19	23	8	2
2004	13	37	6	5
2005	18	52	19	2
2006	26	58	32	3
2007	50	66	30	3
2008	55	74	26	3
2009	72	58	22	2
2010	80	71	32	2
2011	71	61	38	3
2012	74	59	58	6
2013	60	57	38	4
2014	52	53	55	4

MEETING THE SKILLS GAPS IN EMERGING ECONOMIES

NIKHIL SETH
UN Assistant Secretary-General, Executive Director UNITAR

United Nations Institute for Training and Research

The significant and alarming mismatch between the skills available and the needs of the rapidly developing emerging economies will become one of the major constraints to sustained and sustainable growth. This will be most evident on the pathway to sustainable development and in meeting the goals and targets of Agenda 2030 for sustainable development.

The mismatch will limit the growth trajectory, limit the transformative shifts required to end poverty irreversibly and limit the urgent shifts in agriculture, industry, energy and cities which are the cornerstones of a prosperous future for our people and for the health of our planet.

The transformation and growth of emerging economies as a result of globalisation and the digital revolution have resulted in emerging economies such as India, China and Brazil moving up the value chain, opening up demand for labour in new sectors including in service and highly-skilled industries, such as engineering, healthcare, information and communications technology (ICT), leisure and professional services.

In addition, the types of work that people do and the ways in which they are done worldwide are being revolutionized by new technologies, which are reshaping production lines, shifting towards manufacturing automation, replacing human labour with robotics, and transforming our need to be flexible and technologically savvy in how we do business.

By 2020, it is estimated that there will be a global surplus of 90 to 95 million low-skilled workers and a global shortage of 83 to 85 million high- and mid-skilled workers. A Manpower Group Talent Shortage Survey (2013) showed that skills shortages prevented 45% of employers in the Asia-Pacific region filling vacancies. In India, this number soared to 61% of employers, while in Brazil 68% had trouble recruiting the right workforce. The report concluded that developing nations have to narrow the skills gap and "produce more workers capable of doing talent intensive jobs that require higher qualifications".

It is apparent that there will be a need to invest in technical and vocational training. Countries may have plenty of educated young workers, but at a time of industrial upgrading

> All countries stand to benefit from having a healthy and well educated workforce with the knowledge and skills needed for productive and fulfilling work and full participation in society. ”

and ever-increasing technological sophistication, the knowledge and skills gained in schools and colleges are often insufficient.

Training must be linked to the current needs of the labour market, as well as anticipating and building competencies for the jobs of the future. A key to success will also be in public-private partnerships, to leverage the resources and structure of the existing education system and scale up business solutions to meet the skills gaps.

Governments must work with the private sector, to mobilise corporate citizenship arms of businesses to help ensure that the skills gap does not become debilitating to progress.

Nikhil Seth, UN Assistant Secretary-General, Executive Director UNITAR

Effective partnerships between governments, employers' and workers' organizations, training institutions and providers will also be critical to anchoring the world of learning in the world of work, ensuring that the "right" skills are taught and learned by workers.

These partnerships will be pivotal to building quality apprenticeship systems and incorporating core employability skills into training for young people, including basic and portable high-level skills, such as teamwork, problem solving, ICT, communication and language skills.

It will also be vital to reach out to the furthest and leave no one behind, by expanding access to employment-related training in rural communities in order to improve livelihoods, reduce poverty, and equip women and men to work in the formal economy.

Finally, given that the challenge of upgrading education and skills-training systems is shared across the developing world, national governments should develop knowledge-sharing and South-South partnerships, to develop curriculums, train teachers and educators, and share best practices.

With the right investment, partnerships and planning, this challenge will be an opportunity to build a resilient and resourceful talent pool for the future. Closing the skills gap will provide good and decent jobs relevant to the growth of economies, thus promoting social cohesion, prosperity and expansion of opportunities for business and development.

The 2030 Agenda highlighted that "all countries stand to benefit from having a healthy and well educated workforce with the knowledge and skills needed for productive and fulfilling work and full participation in society". The opportunity that closing the skills gap represents, will contribute to many of the SDGs. In fact, I would argue, that given the deep interrelationship of all the goals, matching training and education to skills needed will be pivotal to achieving the transformative agenda. Since skills are a foundation of decent work, and decent work is at the heart of sustainable human development, equipping the workforce with the skills required for the jobs of today and those of tomorrow is a strategic concern in the national growth and development outlooks of all G20 countries.

As the training arm of the United Nations, the United Nations Institute for Training and Research (UNITAR) is firmly committed to ensuring that business and governmental sectors collaborate to deliver capacity building and training to ensure that the skills demand is met in all countries.

UNITAR is working closely with Governments, non-governmental organisations, academia and private sector partners, to facilitate sustainable and transformational growth that benefits all. Investment in inclusive, gender sensitive, youth entrepreneurship, environmental management and green jobs programmes, as well as engineering, science and technology training opportunities, are just some of the ways in which UNITAR is working to strengthen human capital for sustainable development in developing countries.

To find out more go to **www.unitar.org** or contact us directly at **info@unitar.org**. ■

AFRICA'S ROLE IN REGENERATING THE GLOBAL ECONOMY

SINDISO NGWENYA
The Common Market for Eastern and Southern Africa – COMESA

Africa's integration into the global economy will be based on three pillars; market integration, infrastructure development and industrial development.

The market integration pillar aims at removing trade and investment barriers. The infrastructure pillar will enable physical connectivity in the region to reduce the cost of doing business and facilitate the movement of goods, people and services. The industrial development pillar will address the productive constraints that inhibit inclusive and sustainable transformation of the region; from low productivity economies that rely on export of unprocessed primary commodities with either little or no value addition, to high competitive economies that produce and export value added products.

Aware of the need to implement programmes under the three pillars, regional economic communities (RECs) are leading their respective member States on this path that will lead full integration into the global economy. In the eastern and southern Africa region, three RECs namely the Common Market for Eastern and Southern Africa, (COMESA) the East African Community (EAC) and the Southern Africa Development Community (SADC) have come together to create single market for trade and investments. The COMESA-EAC-SADC Tripartite Free Trade Area is one of the building blocks of the African Continental Free Trade Area which will come into force in 2017.

The Tripartite FTA brings together 26 States with a combined population of 625 million people and a combined gross domestic product of United States Dollars 1.3 Trillion. It accounts for almost half the membership of the African Union and sixty two percent of the continent's gross domestic product. The total landmass of the countries that make up the tripartite region is 17.3 million square kilometers which is twice the size of China. The above statistics and comparisons make a compelling case for the integration arrangement that will change the political and economic geography of the region.

This vision of creating a single market will address the challenges that arise from the fragmentation of countries

in the region by creating a borderless economy that is sine quo non for structural transformation, inclusive and sustainable development. An interesting feature of the intra-tripartite trade is that it is dominated by trade in intermediate products and manufactured goods thus further confirming available evidence that the region can serve as a basis for industrialization anchored on value addition.

Within the eastern and southern Africa regions, there is a remarkable increase in cross border investment in manufacturing, trade in services – including logistics and financial services – by companies that are emerging as regional champions. The regional trade and industrial policies will further stimulate and enhance these investments. It however acknowledged that trade between African countries and the rest of the world is dominated by exports of unprocessed primary commodities and imports of manufactured products which brings me to the pillar of industrial development.

Although the program for industrialization pillar is still under development substantial progress has been made by COMESA, EAC and SADC in coming up with regional industrial policies and strategies which are under implementation. Without physical infrastructure connectivity and energy, which is an enabler to development, our countries will remain under developed. To quote the famous Chinese saying: “if you want to be prosperous build roads”.

> Within the eastern and southern Africa regions, there is a remarkable increase in cross border investment in manufacturing, trade in services – including logistics and financial services. ”

Currently, mega investments are taking place in infrastructure and energy. Several States have, through innovative means of financing, been able to issue infrastructure bonds in domestic and global markets to finance infrastructure and energy projects. Two examples from COMESA Member States illustrate this; the financing of the second Suez Canal amounting to Nine Billion Dollars was raised from the domestic market in Egypt. Equally, the Ethiopian Grand Renaissance Dam which, when complete in 2017 with 6,000 megawatts of power will be the biggest hydropower project in Africa was funded by Ethiopia and a Diaspora bond to the tune of US$ 4.4 Billion.

Standard Gauge Railways are being constructed for the first time in the region. This will replace antiquated railway lines that were built at the turn of the twentieth century. With these well focused development models and a young population, the African continent is now the most attractive trade and investment frontier. ■

LONG-TERM POLICIES FOR THE RENEWABLE ENERGY TRANSITION

DR FATIH BIROL
Executive Director,
International Energy Agency

Almost one year ago, the world greeted the Paris Agreement with enthusiasm. Yet as the initial excitement began to settle, the question that remained was whether or not this event marked a true sea change in the energy transition. We have long said that predictable and stable policies can provide long-term price signals that attract finance. So, will the Paris Agreement spur the appropriate policies and investment necessary to keep us on track to a 2 degree scenario?

Investment in low-carbon electricity is a crucial component of a successful climate strategy. Electricity is the single greatest contributor to global emissions, with electrification and growth driving demand in emerging economies. The IEA's annual Tracking Clean Energy Progress report concluded in 2016 that the deployment of the majority of low-carbon technologies will need to significantly accelerate to put the global energy system on track for an impactful low-carbon transition.

Yet what we are seeing lately is encouraging. Investment into renewable electricity was nearly three times higher than for fossil fuel generation in 2015. China reached a new high of nearly US$ 100 billion, making up 60% of its total generation investment, with wind investment for the first time surpassing hydropower. Meanwhile, renewable investment in India increased to near US$ 10 billion, with strong underlying momentum where policy support and improving economics are driving an expansion of onshore wind and solar photovoltaics. While renewable investment in the European Union has trended down in recent years, offshore wind reached its highest level to date.

Three broad trends are at work here. First, the spread and implementation of enabling policies to countries with good resources are supporting the cases for investment. This momentum was enhanced with climate pledges stemming from the 2015 Paris Agreement, providing further long-term decarbonisation signals. Second, cost deflation and technology improvements mean that a dollar invested in renewables yields far more capacity and energy than it did five years ago. Third, supportive financing factors, such as availability of lower cost debt, are enhancing investment.

However investment challenges persist. While Paris Agreement pledges underpin a new normal for renewable deployment,

International Energy Agency
Secure
Sustainable
Together

they require innovative thinking in policy design and implementation. The cost and value considerations of integrating wind and solar into the electricity system will likely become even more challenging as penetration grows. Appropriate market design that accounts for the value of variable renewables to the grid remains important for maintaining momentum.

On the back of the Paris agreement, the G20 economies in particular have a crucial role in ensuring that appropriate policies are implemented and maintained. Collectively they account for 75% of global energy demand and 80% of energy-related CO_2 emissions. This means they can make the difference in removing uncertainties, individually and collectively, if they share best practices and learn from experience. The IEA stands ready to support G20 action in this area, including through our recently expanded work programme on grid integration of variable renewables and electricity security.

> China reached a new high of nearly US$ 100 billion, making up 60% of its total generation investment, with wind investment for the first time surpassing hydropower. ”

We are moving through a crucial period for those with a stake in low-carbon electricity. For the first time, renewables have seized the top spot in global power market growth and are set to dominate the emerging power systems of the world. But this is hardly time for complacency: while governments now realise that, even in the context of lower fossil fuel prices, renewables can provide affordable win-win solutions for enhancing energy security and reducing local pollution while mitigating global climate change, economic uncertainties and wavering policy commitments risk undermining investor confidence and slowing growth. I truly believe that while variability of renewables is a challenge that energy systems can learn to adapt to, variability of policies poses a far greater risk. The G20 economies hold the keys to ensure this does not happen and that, in contrast, we see even greater efforts to accelerate the deployment of low-carbon electricity to get us on track to meet climate change goals. ■

INNOVATION IN ENERGY: NEW ENGINE OF GROWTH FOR EMERGING ECONOMIES

DIETRICH GROSS
Chairman & CEO
Jupiter Oxygen Corporation

CATHERINE CHEN JING
Director of Development China
Jupiter Oxygen Corporation

JUPITER OXYGEN CORPORATION

For more information, please visit:
www.jupiteroxygen.com

The UN estimates that global population will grow more than 20% in this century, mainly in Asia and Africa. These growing populations will increase global demand for food, water, and energy – especially electricity – with concurrent growth in coal consumption. At the same time, the recent Paris Agreement commits 195 governments to decarbonize national economies, and to work at their national level to limit future warming to 2°C or less.

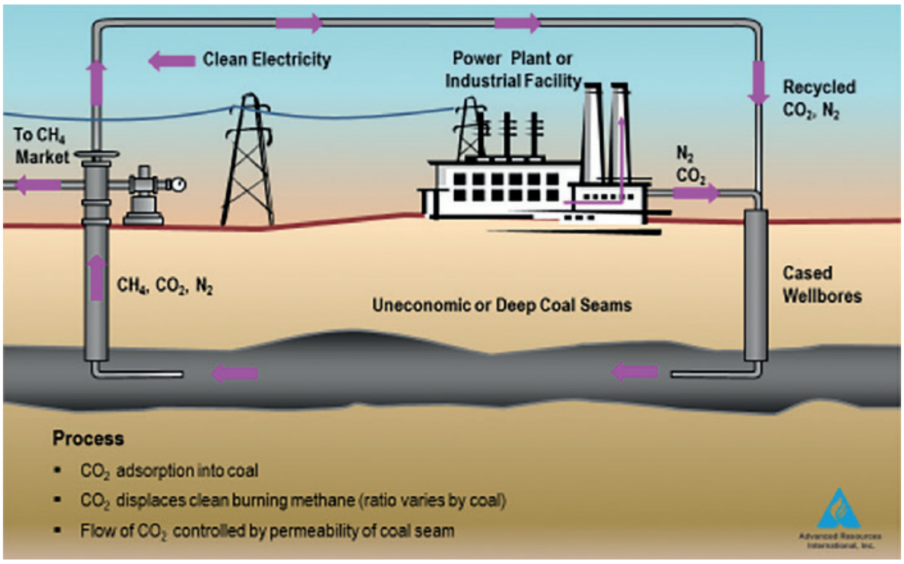
China is a key indicator of what can be achieved with the Paris Agreement, recognizing their continuing dependence on coal on the one hand, and the inclusion of clean coal technologies in their climate plan on the other. China announced that it will ratify the Agreement in 2016 in order to accelerate the Agreement's entry into force.

Full ratification of the Paris Agreement is only the beginning of the process: tangible action on high-impact carbon mitigation strategies must follow worldwide.

Innovative energy technologies, including technologies for carbon capture, utilization, and storage (CCUS), will be essential to achieving the targets of the Paris Agreement. By moving now to promote commercial-scale demonstrations of innovative CCUS technologies, the G20 can play a critical role in accelerating investment in sustainable infrastructure, and growing the global economy.

Coal Drives Growth

According to the INDC Scenario of the International Energy Agency's Special Report on Energy and Climate Change[1], economic growth continues to be fueled by fossil energy, especially coal. Global



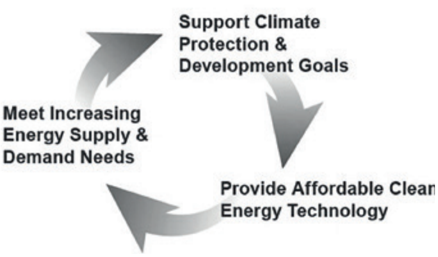
How does Enhanced Coal-Bed Methane Recovery work?

coal consumption reaches a plateau around 2020, with usage declining in the OECD but increasing in developing countries. India, China, and Indonesia account for most of this growth in coal use, with associated increases in local air pollution and consumptive water use for energy production.

The IEA's INDC Scenario envisions the world on a path to a long-term warming of 2.6ºC. Using this scenario, the IPCC[2] estimate of the amount of fossil fuel that can be burned and still limit future global warming to 2ºC is fully exhausted by 2040. Additional combustion of high-carbon fossil fuels will lead the world further down the path toward dangerous interference in the global climate system.

How Innovative CCUS Technology can Help Meet the Challenge

Cleaner fossil energy technologies can help facilitate the development of intermittent renewable energy technologies and minimize the negative environmental impacts of conventional fossil energy supply and use. One CCUS strategy, in particular, seems likely to create near-term, win-win opportunities that are highly relevant for developing countries.



Key for Sustainable Development: Innovative Clean Energy Technology Solutions

The application of oxy-combustion (i.e., the burning of fossil fuels in a boiler with nearly pure oxygen) in existing and new power plants enables cost-effective capture of highly concentrated CO_2.

Co-benefits from applying oxy-combustion carbon-capture technologies include air pollutant control and making CO_2 available as a useful and marketable product. These ancillary benefits help offset the cost of cleaning up coal-fired power plants.

Using the CO2 for ECBM

Local Oil & Gas Companies or other entities are potential buyers and off-takers for CO_2 for use in energy production. The captured CO_2 from coal fired power plants in conjunction with nitrogen (available from an air separation unit as part of the oxy-combustion technology), can be injected into deep, unmineable coal seams to release trapped methane. In this application, the process is referred to as Enhanced Coal-Bed Methane (ECBM) recovery. This domestically produced cleaner methane substitutes for coal in electricity production or for expensive natural gas imports in developing countries. There have been promising ECBM pilot projects in the U.S., Canada and China.

The cost of ECBM recovery is sensitive to both the geology of the local coal seam and the distance between the unmineable coal seam and the CO_2 "source" facility.

The volumes of clean-burning domestic natural gas that can be produced from unmineable coal seams can be significant.

For example, Advanced Resources International estimates that 70 to 90 trillion cubic feet (TCF) of coal-bed methane are present in India[4]. Of this resource, only 20 TCF are recoverable with conventional methods. An additional 15 to 18 TCF are potentially recoverable with ECBM, which would also store billions of tons of CO_2 safely and securely underground. Natural gas, including methane, will be an important bridge fuel for decades.

Financing the Transition to a Green Economy

As G20 leaders work on their pledge to end fossil fuel subsidies, new opportunities emerge for financing the transition to a Clean Energy Future. Multilateral investment funds, including the Green Climate Fund, the Clean Technology Fund, and the Trust Funds of multilateral development banks should finance the commercialization of CCUS technology with ECBM. In so doing, these institutions will be instrumental in financing the transition to a Green Economy. Under Article 4 of the UNFCCC[3], industrialized countries are committed to underwrite the incremental costs for CCUS and other low-carbon technologies in emerging economies. Financing the development of carbon capture, utilization, and storage with enhanced coal-bed methane production provides win-win options for emerging economies, fuels economic growth, and strengthens energy security.

Jupiter Oxygen Corporation (JOC) has commenced an initial commercial ECBM project in western China, which will include retrofitting coal fired power plants with JOC's high flame temperature oxy-combustion and CO_2 capture technologies. This will be the first commercial full scale ECBM project in the world. The recovered methane will provide cleaner energy for China.

Implementing these technologies at scale will facilitate achieving the INDCs, support national efforts to protect local environments, and contribute to the stability of our shared global atmosphere. ■

REFRENCES
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2. IPCC: Intergovernmental Panel on Climate Change
3. UNFCCC: United Nations Framework Convention on Climate Change
4. Advanced Resources International, 2015. "Screening-Level Assessment of CO2-Enhanced Oil Recovery and Enhanced Coal-Bed Methane Recovery Opportunities in India,"

VISIONARY POLICIES NEEDED TO MEET PARIS CLIMATE TARGETS

BRAD PAGE
CEO, Global CCS Institute

It is now clear that the outcome of the Paris climate talks was a game changer delivering a renewed global commitment to addressing climate change. No longer are we aiming to limit global warming to 2°C. We are now aspiring for well below that – perhaps as low as 1.5°C. In the post-COP21 discussions, there has been a shift in thinking from 'how much do we do?' to 'how do we do so much?'

But the numbers are confronting.

The targets set by the countries signing up to the Paris Agreement only put the world on a track towards about 3OC.

We are already at 400 ppm of CO2 in the atmosphere and on track to exceed 450 ppm.

Assuming that current and announced climate policies are implemented, the IEA forecasts that despite the extensive, world-wide government support for renewables and increasing energy efficiency, fossil fuels are expected to meet approximately 75% of primary energy demand in 2040; down marginally from the historic share of around 85%.

Concurrently, energy access in developing countries is the path to improved living standards. It is from here that the vast majority of increased fossil fuel usage will come along with an associated lift in emissions unless there are fundamental changes in approach.

There can be no doubt that visionary, bold and innovative policy solutions are necessary. It will also not be enough to single out popular technologies for support – and hope they will do the job. That is the path the world has been on for at least the past 2 decades and today we are further away from our emission objective in absolute terms than we were those 20 years ago.

It is clear that renewables and energy efficiency are vital. Support for them must continue and their penetration scaled up massively from today's base. But in the time available, this will not be enough.

Industrial processes account for 25% of greenhouse gas emissions. Energy efficiency is relevant but the main –

perhaps only – technology to address this problem is carbon capture and storage. Renewables offer very limited potential in this area. Yet there are few policies in the world to incentivise investment in CCS in industrial processes.

In power generation, the installed stock of fossil fuel plants is so great, much of it will not be retired in the next 30 years. Additionally more than 2000 new coal fired generators are planned for construction by 2030. Without CCS applied to these facilities there is little hope of achieving the Paris climate objectives.

The IPCC Fifth Assessment Report was clear that achieving the now base target of 2OC, was likely to be more than 130% more costly without the widespread deployment of CCS and that the majority of the models examined concluded it was unachievable without CCS. They are not alone. The Brookings Institution, the UK Committee on Climate Change and the Grantham Research Institute have all reported on the vital role of CCS in dealing with climate change.

The technologies to deal with climate change exist or are in development. We need them all and we need to keep developing them.

Key among these is CCS:

- It is proven – 15 operating projects capturing and storing up to 28 million tonnes of CO2 every year attest to this;
- It has wide applicability with plants operating in natural gas processing, power generation, fertiliser manufacture, biofuel production, hydrogen production and shortly steel making;
- It supports existing communities and economies with energy intensive and fossil fuel industries that must move to a low emission future; and
- It is safe as 20 years of the operation of the Sleipner storage field in Norway.

It is now urgent that Governments implement visionary policies to unlock the unprecedented amount of capital that is required to transform the global energy system while also allowing developing countries to meet their energy poverty challenge. This requires every very low and zero emission technology to be strongly encouraged with government policies that are enduring, reliable and efficient, allowing the business case to be made and for the investment to flow. Without this the Paris Agreement will be unachievable. ■

RENEWABLE ENERGY IS A RESPONSE TO THE DILEMMA OF GROWTH VS CO2 EMISSIONS

LUIZ EDUARDO F. DO AMARAL OSORIO
Chief Institutional Relations & Legal Officer, CPFL

The energy sector is playing a crucial role in the sustainable development of the planet this century. At a time of transition to a low carbon economy, the key challenge will be to balance growth in energy demand with the rational use of natural resources and the reduction in greenhouse gas emissions. By 2050, the United Nations Organization estimates that two thirds of the global population, that is 6.3 billion people, will be living in urban centers. Emerging nations with levels of consumption inferior to those of the developed world will have to take the lead in preparing for the corresponding economic expansion, these cities of the future requiring the adoption of sustainable solutions.

In this context, investments in clean energy sources and energy efficiency become still more relevant. According to an International Renewable Energy Agency report, if the share of these sources in the global energy mix were to double to 36% by 2030, the environmental savings would be equivalent to as much as US$ 4.2 trillion. However, countries will have to coordinate their regulatory framework and stimulate the insertion of these alternative sources in their energy matrices if this is to become a reality.

In Brazil, where the average annual electric energy consumption is 2.5 thousand kWh per capita – well below the 8.2 thousand kWh per year for members of the Organization for Economic Cooperation and Development (OECD) – the energy matrix contrasting with the majority of the world's nations. More than 80% of the country´s electricity generation originates from clean sources, the emphasis being on hydroelectric energy, while for a good part of the world, coal is the principal source of energy. The sharp increase in the importance of alternative renewable energy in Brazil has been remarkable. This, in the form of wind, solar and biomass, accounts already for approximately 15% of domestic energy supply, an indication that as Brazilian consumption per capita grows,

CPFL Energia perfected its strategic plan, reinforcing sustainability in its corporate platform and prioritizing investment in renewable sources, innovations and the intelligent use of resources. ”

expansion in demand will be satisfied from renewable energy sources.

Unquestionably, the future in Brazil for renewables is promising. The country already ranks among the ten largest in the world in energy generated from wind farms with 8.6 thousand MW. And there is considerable potential with more than 300 GW of capacity, which can be harnessed over the next few years, equivalent to 21 Itaipu hydroelectric power plants. Again, in solar energy, Aneel, the local electricity regulator, is forecasting that by 2024 nearly 5 million people will be producing their own energy. This source, currently representing less than 0.1% of the energy matrix, may reach as much as 3% in ten years' time, irrespective of the immense potential for residential and industrial use. By 2050, Brazilian government estimates show that distributed solar generation could account for 118 GW.

The modus operandi adopted by Brazil for renewables has been to reconcile the contracting of energy through auctions with the participation of private sector entities where alternative energy sources play an important role. Wind farms are a case in point. This process began in 2009 with the launch of annual auctions focused on the contracting of energy from wind farms with the purpose of creating a steady demand for equipment from local manufacturers. The Brazilian Economic Development Bank – BNDES also began granting loans at lower interest rates for financing the acquisition of equipment from manufacturers with a domestic content of more than 60%.

In 2009, the price of energy from wind farms which had cost more than US$ 57.08/MWh (US$ 1.00 = R$ 3.46) at the beginning of the decade, plummeted to US$ 39.07/MWh. Currently, this price is close to the level of some hydroelectric plants. Brazil had just one wind turbine manufacturer in 2004 but today has about ten with more than 100 companies participating in the wind energy manufacturing and supply chain, many of these companies, foreign.

As part of this global context, in 2009, CPFL Energia perfected its strategic plan, reinforcing sustainability in its corporate platform and prioritizing investment in renewable sources, innovations and the intelligent use of resources. In 2011, it constituted CPFL Renováveis, the latter subsequently launching its IPO on the Stock Exchange in 2013. Today, CPFL Renováveis is Latin America's largest energy generating company from alternative renewable sources.

Since 2012, we have been investing in intelligent networks; in 2014, we created CPFL Eficiência. More recently, we made our debut in the distributed solar generation market. The aim is to supply solutions which foster rational consumption and the sustainable use of natural resources. This strategy is supported by investments in innovation and R&D projects focused on green technologies such as electric mobility and storage solutions.

As a result, CPFL Energia has achieved a position as one of the leaders in the transition to a low carbon economy in Brazil. This is our contribution towards meeting the targets set by the Paris Agreement on Climate Change. Under this Agreement, Brazil has pledged to increase the share of alternative renewable energies in the electricity matrix from 10% to 23% by 2030. ■

MAKING TRANSITION WORK IN EUROPE

**Wind energy makes economic sense.
So why is Europe's leadership in it slowly slipping away?**

GILES DICKSON
CEO, WindEurope

Wind energy in Europe is at a crossroads. It's a time of great opportunity and great uncertainty. Great opportunity because wind energy continues to set records on installations and investments. And costs continue to fall rapidly. But great uncertainty because the policies and markets are not in place to support its continued deployment, crucially to deliver the price signals investors need.

Wind now meets over 11% of Europe's electricity demand, and the industry generates €67bn in annual turnover. On economics alone, this should be a golden age for wind energy in Europe. Onshore wind is the cheapest form of new power generation in Europe: it costs less than building new coal, gas or nuclear.

Offshore wind is also cutting costs dramatically. In June 2016, 11 major energy companies declared offshore wind costs could fall to below €80/MWh by 2025, assuming an annual buildout of 4GW a year. A month later, DONG Energy secured the cheapest offshore price ever seen, winning the Borssele I and II sites in the Netherlands for a record €87/MWh including grid connection. This exceeded even the most optimistic expectations. It puts offshore wind in the same cost range as conventional power generation.

The favourable economics around wind gives European governments a perfect opportunity to accelerate the transition to low carbon energy. The wider economic benefits are evident. Already the wind industry provides 330,000 jobs across Europe. That number could grow significantly. By 2030 wind could provide nearly a quarter of Europe's electricity, making it as central to Europe's energy mix as coal and gas are today. Consumer bills would come down. And Europe would save on the huge amounts it pays for energy imports – yes, Europe's consumers each pay nearly €1,000 a year for imported coal, gas and oil.

Unfortunately, most governments in Europe are failing to grasp this. Policy and regulation on renewables are much less clear and ambitious than they were. Only 7 out of 28 EU countries have goals and policies in place for renewables beyond 2020. As things stand there'll be not much onshore wind built in the UK or Poland, the once-strong Spanish market is also dormant, and Germany annual installations will be little more than half of what they are today. There is more ambitious and policy clarity in China, India and other emerging economies. The hard truth is Europe's leadership in renewables leadership is slipping away.

Offshore wind is also facing doubt. Despite current record investments levels, it's unclear what many key governments are planning for offshore wind beyond 2020 by way of volumes and regulation. We're a long way from being able to say "job done" on offshore wind.

At the end of 2016 the EU Commission will propose a new EU Renewable Energy Directive. This will set the legal framework for renewables across Europe upon 2030. It has to be an ambitious proposal. Without robust legislation, investor uncertainty will take hold, and Europe will fail to realise the full economic potential of wind energy.

It is essential that Europe ensures its domestic renewables industry remains strong – and that requires a vibrant home market. But as things stand Europe will not be number one in renewables. EU companies risk losing their lead over competitors and this will have a negative impact on jobs and growth. In 2015, China overtook the EU for total installed wind energy capacity. This was a watershed moment. China and the US are hot on Europe's heels. If Europe really wants to be number one in renewables it needs to get its act together. And fast.

As an industry we will address all these issues at the WindEurope Summit 2016 on 27-29 September in Hamburg alongside the Wind Energy Europe fair. Hamburg is a major hub of the European wind industry so a natural place for us to meet – and with energy transition now a key issue for the G20 it will be an excellent venue also for next year's G20 Summit.

The title of our 2016 Summit in Hamburg is 'making transition work'. Leading players in the wind industry and global energy policy will share their insights on the opportunities and challenges facing the wind sector. Speakers include German Vice-Chancellor Sigmar Gabriel, EU Commission Vice-President Maroš Šefčovič and IEA Executive Director Fatih Birol.

We hope the WindEurope Summit in Hamburg this September will generate a momentum on energy issues that will feed in to the Hamburg G20 Summit next July. We look forward to sharing the results with G20 leaders. ■

RENEWABLE ENERGY MARKETS & THE GCC REGION

ADNAN Z. AMIN
Director-General
IRENA

The transition towards renewable energy is creating a fundamental, long-term shift in the global economy. This shift can be expected to have a significant impact on fossil-fuel producers, including the oil – and gas-exporting countries of the Gulf Cooperation Council (GCC).

The landmark December 2015 Paris Agreement, backed up with detailed plans by countries around the world to overhaul their energy sectors, could imply the eventual softening of global demand for oil and gas, the main drivers of local economies. But it also presents an exciting opportunity for economic diversification and entry to new markets.

For the last several years already, GCC countries have been fashioning a critical role for themselves in the global shift to renewable energy. They have done so as investors in major solar and wind projects worldwide and also by adopting innovative and increasingly cost-competitive technologies in their own domestic markets.

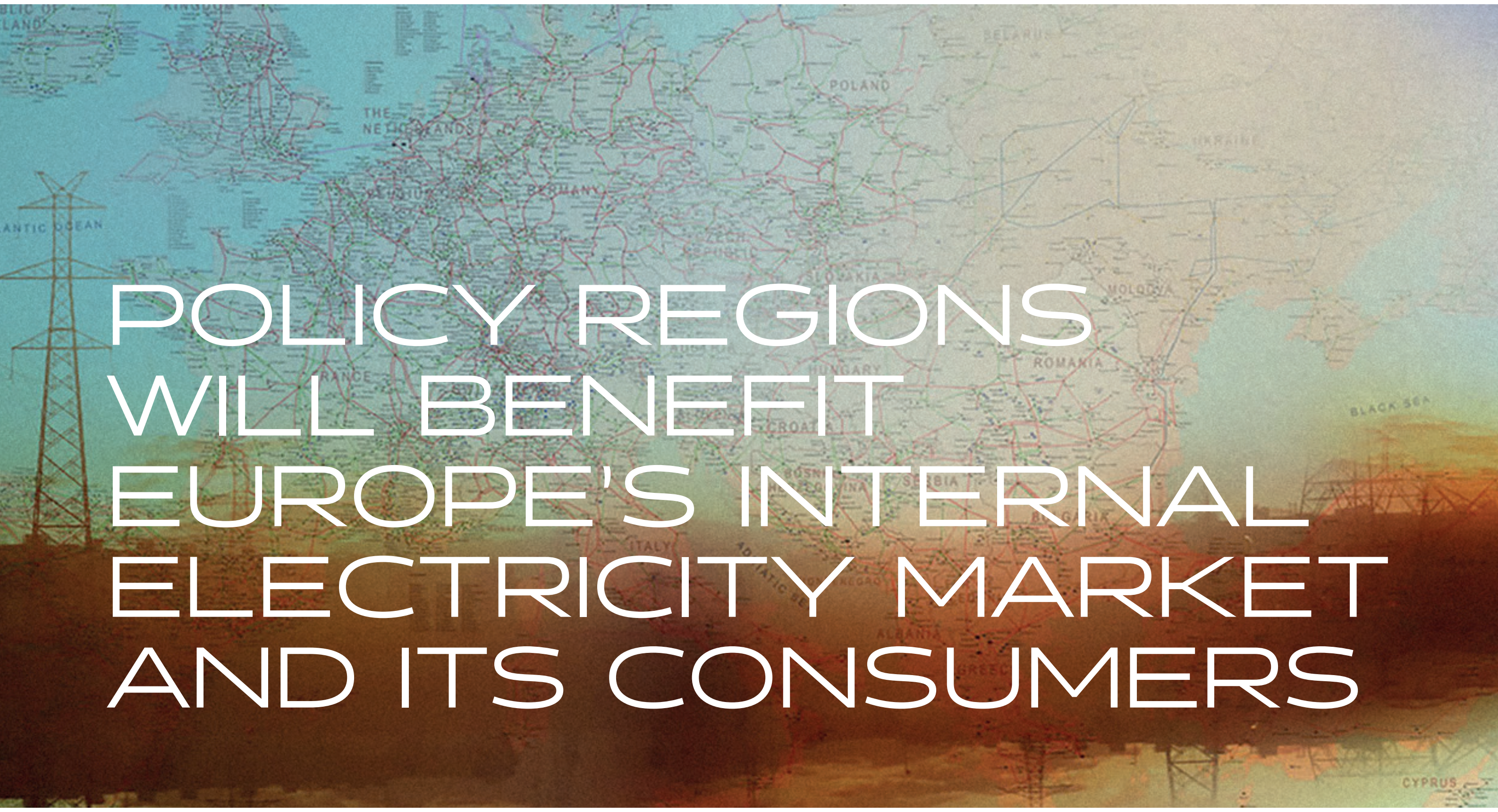
With the advent of lowest solar prices in the world, Gulf countries are set to capitalise on their promising solar resources for power generation and water desalination. As the present market analysis finds, the GCC region can cut its annual water use by 16 per cent, save 400 million barrels of oil, create close to 210,000 jobs and reduce its per capita carbon footprint by 8% in 2030 – all by achieving the renewable energy targets that national and sub-national governments have already put in place.

These current targets are entirely within reach. A solar photovoltaic tender in Dubai last year resulted in the record-low electricity price of USD 0.06 per kilowatt hour – cheaper than domestically produced power from gas-fired generation. Indeed, for countries that use a substantial share of their hydrocarbon production for power generation, solar power has emerged as one of the quickest, least-risk investments to meet rapid demand growth for electricity and even boost export capacity and revenues.

The economic and social rationale for the energy transition in the GCC has never been stronger. By maintaining their leadership in the energy sector and embracing their region's abundance of renewable energy resources, GCC countries can ensure their own long-term economic and social prosperity through a clean energy future. ■

IRENA
International Renewable Energy Agency

IRENA (2016), 'Renewable Energy Market Analysis: The GCC Region'. IRENA, Abu Dhabi.



POLICY REGIONS WILL BENEFIT EUROPE'S INTERNAL ELECTRICITY MARKET AND ITS CONSUMERS

KONSTANTIN STASCHUS
Secretary-General

MICHAEL MIESZCZANSKI
Senior Advisor
Corporate Affairs

entsoe
Reliable Sustainable Connected

In February 2015 the European Commission adopted a 'Framework Strategy for a Resilient Energy Union' creating new momentum to bring about the transition to a low-carbon, secure and competitive economy. One important element of this strategy are regions: It considers a range of energy policy instruments that can be employed beyond the national, at a regional level. Important examples where regional coordination is important to avoid market distortions include subsidies for renewables, security of electricity supply (i.e. capacity mechanisms), interconnection targets, system adequacy assessments and mutual support during simultaneous scarcities. Regions are thus a stepping-stone for the construction of the Internal Electricity Market, where national energy mix decisions and regional coordination on the above topics complement the well-advanced Europe-wide day-ahead and intraday electricity markets.

By 2030 almost 50% of Europe's electricity will be generated from renewable energy sources. The continued rise of variable electricity generation needs to be well managed so that it does not challenge secure system operation and cost efficiency. We need to bear in mind that Europe's power system is interconnected beyond national borders. On one hand, this allows us to create the world's largest common electricity market to the benefit of all consumers. On the

other hand, interconnection also implies that changes in one country have an impact on its neighbours. This is why we need to seek increasingly regional rather than national solutions: While Europe's electricity markets grow pan-European, national energy policies can have distortive or obstructive effects when they are uncoordinated or conflicting.

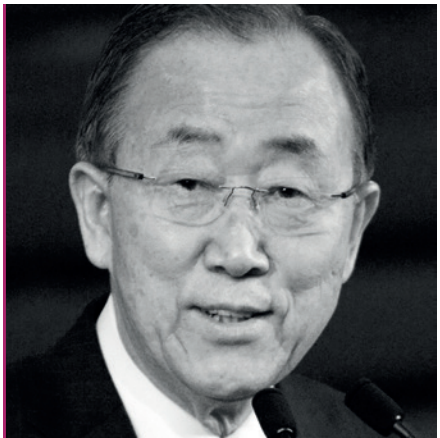
Regionalisation in the electricity sector is not about creating new clear-cut borders, but about easing the relationship between the European and national levels. There is no EU-wide mandate or consensus to fix how exactly national energy mix and security of supply decisions combine with the Europe-wide market. However the potential for consensus and the need for it to avoid nasty market distortions is bigger at regional level. Regional actions allow to move faster, to test and spread innovative solutions and to reach specific conclusions. Policy regions need to be flexible, manageable in size and number and ensure the involvement of strongly interconnected non-EU members. Policy regions should thus be defined in a voluntary process in order to address issues such as energy mix, planning of interconnectors, market development, integration of RES into the market, supporting risk preparedness, adequacy issues and cooperation between capacity mechanisms, without questioning Member State decision-making power.

On many of these aspects, ENTSO-E's work can support Member States' decision-making. We have been continuously improving our system adequacy methodology. Member States should use our Mid-term Adequacy Forecasts as a basis for regional measures to ensure security of supply, e. g., market design adaptations with due consideration of their national specificities. By the same token, we are convinced that Europe needs a more coordinated approach for renewables support schemes. This would improve the economic efficiency of the energy transition in Europe through an optimised development of renewables based on Member States' differentiated natural resources. Such an approach suggests the gradual harmonisation of the type and the level of RES support at least at the regional level to achieve the 2030 targets more cost-effectively. This sounds ambitious, but important first steps in this direction are already underway: Germany and Denmark, for instance, just agree on a pilot to open up their renewables support schemes to one another.

Although Germany's and Denmark's agreement is an historic first, the concept of policy regions is not new. The Penta-Lateral Energy Forum, the Nordics or Baltic Energy Market Interconnection Plan for instance, have had successes in devising regional energy policy coordination.

Wherever possible, such existing regional cooperation structures based on historical and market cooperation aspects should be used to form energy policy regions. The European Commission's Energy Union Strategy is the right framework to develop policy regions further, and its forthcoming legislative proposals for the electricity market design and the Energy Union governance are important opportunities to anchor the principles of policy regions in law. ■

SUSTAINABLE DEVELOPMENT



BAN KI-MOON
Director-General
United Nations

Together, we have embarked on a monumental and historic journey.

In recent months, I have listened to many people, including refugees, youth and children, indigenous people, persons with disabilities, and women entrepreneurs.

I heard the common message: the SDGs represent their hope for a better future. They are an action plan for people, planet, peace and prosperity.

We live in an inter-connected world. That is why the SDGs are universal and indivisible.

Today, I am launching the first SDG report. It is based on official data provided on the indicators developed by the Inter-Agency and Expert Group on SDG Indicators and agreed by Member States.

The Sustainable Development Goals report 2016 will provide a key benchmark throughout the implementation period of the 2030 Agenda.

It provides an accurate evaluation of where the world stands on the 17 Goals, using data currently available to highlight the most significant gaps and challenges.

The latest data show that about one person in eight still lives in extreme poverty:

- Nearly 800 million people suffer from hunger.
- The births of nearly a quarter of children under 5 have not been recorded.
- 1.1 billion people are living without electricity, and water scarcity affects more than 2 billion.

The data also underscore the imperative of targeted action in support of the furthest behind.

For the agenda to be fully implemented, those who are the furthest behind will have to be reached first.

This will not be possible without data and indicators on all groups, especially those that are often unaccounted.

Coordinated efforts worldwide will be indispensable to supply reliable and timely data for systematic follow-up and progress reviews. The SDGs address the critical challenges of our time.

One challenge that calls for immediate action is climate change. Every day, the headlines speak of more climate-related disasters – mass coral bleaching on the Great Barrier Reef; soaring temperatures in the Arctic; wildfires, multi-year droughts and floods.

> The actions needed to reduce emissions and build climate resilience are the very same that are needed to lay the foundation for prosperity and security for all. ”

In April, a record-number of Member States signed the Paris Agreement on climate change. Now we need to bring that Agreement into force this year.

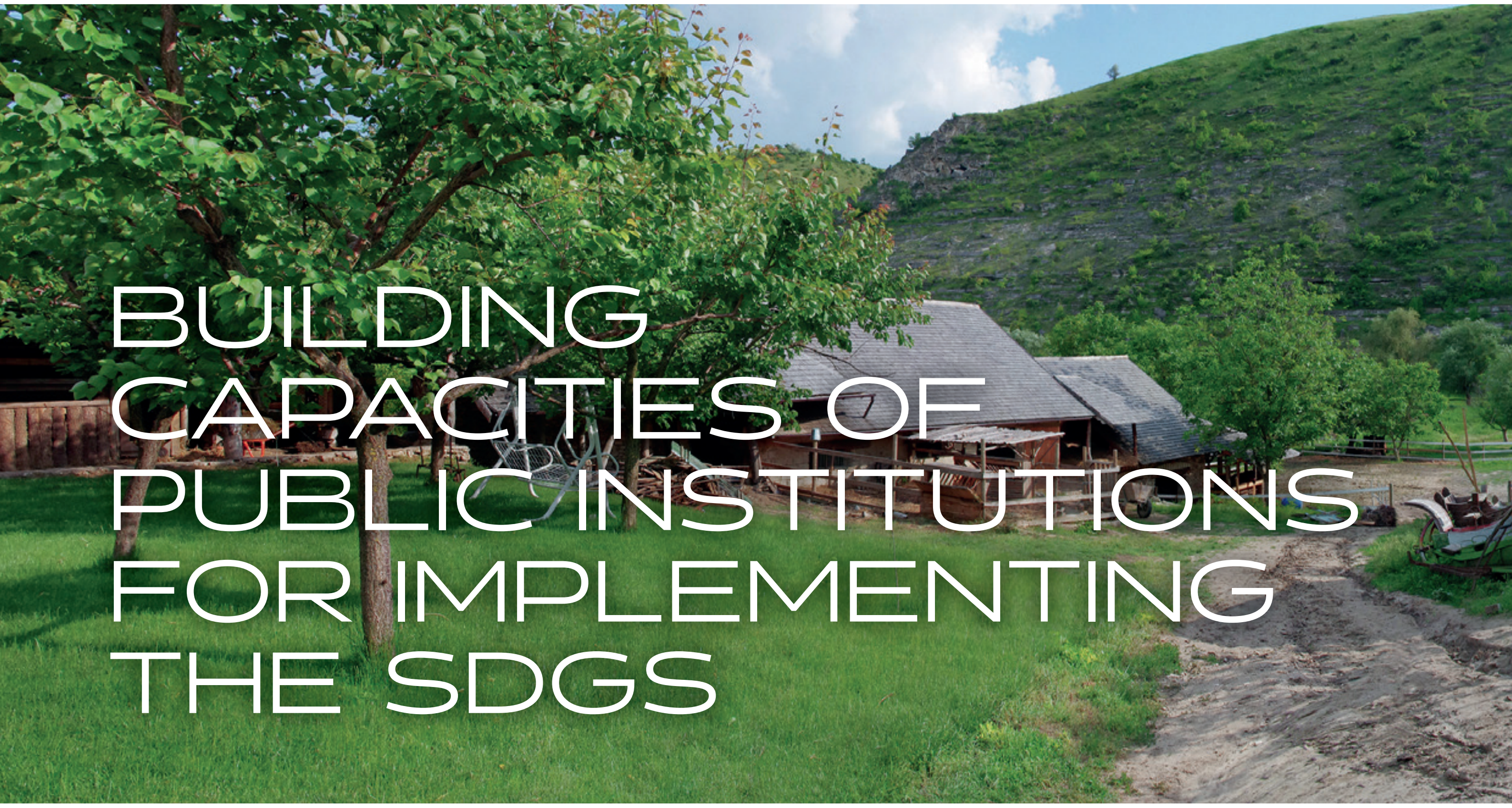
To help advance this process, I will convene an event on September 21st, the morning, this year, from 8-9 o'clock, for countries to deposit their instruments of ratification. We have 178 countries who have signed this Paris Agreement, and 19 countries have deposited their instrument of ratification. As you are well aware, we need the 55 countries to ratify, and 55% of global greenhouse gas emissions accounted. So we need to do much more.

These 19 countries all accounted is less than 1% of greenhouse gas emissions. We very much encourage those countries like United States and China, Australia, Indonesia, Mexico, Argentina, many countries, at least 40 countries who committed that they will ratify this Paris Agreement before the end of this year. It would be much better and desirable – I may be too ambitious to ask you – if we can ratify, make it enter into force, before we go to Marrakesh in November – that would be even much better. If not, by December this year, so that we can really make an accelerated process in implementing this climate change agreement. That's why I am going to convene this meeting, summit meeting, for those ratifiers. All who are committed to ratify. And please make sure that your country makes an accelerated process of ratification of this agreement.

Tackling climate change is essential for sustainable development, without any doubt.

The actions needed to reduce emissions and build climate resilience are the very same that are needed to lay the foundation for prosperity and security for all and set the world on a sustainable footing for generations to come. ■

Secretary-General's remarks at High-Level Political Forum on Sustainable Development, New York, USA, 19 July 2016



BUILDING CAPACITIES OF PUBLIC INSTITUTIONS FOR IMPLEMENTING THE SDGS

HELEN CLARK
Administrator
United Nations
Development Programme

Institutions which are effective and accountable will play a central role in achieving the SDGs. Indeed, many of the 169 SDG targets make direct reference to the need for institutional capacity.

The challenge now is to build strong public administrations which can manage complex cross-sectoral challenges.

- Those challenges include inequalities, marginalization and discrimination, and corruption. Where present, these undermine social cohesion – and maintain wide gaps between states and citizens.
- Sustainable development requires co-ordination across economic, social, and environmental policy-making. The goal must be to promote inclusive growth which doesn't exacerbate inequalities or wreck the environment. That requires whole of government co-ordination.

Public administrations must also be able to:

- translate the global goals into national and local programming which responds to people's needs and aspirations. This domestication of the SDGs is important for establishing national ownership of them, and for engaging the wide range of national and local stakeholders in implementation; and
- monitor and evaluate progress through data collection and analysis. They need to be able to identify who is being left behind, and design approaches to overcome exclusion. Evidence-based policy-making is needed. Many countries have much to do to strengthen capacities in these areas.

Overall, institutions should be prepared to open up to greater stakeholder engagement in policy development. It is important to include the voices of vulnerable and marginalized people, and to foster accountability and trust in the public sector. Disaggregated data is vital for effective policy-making.

UNDP's support for institutional capacity building

UNDP has long experience of supporting countries with public administration reform aimed at promoting professional, transparent, and accountable public service.

It is important to include the voices of vulnerable and marginalized people, and to foster accountability and trust in the public sector. Disaggregated data is vital for effective policy-making. ”

In Georgia and Moldova, for example, UNDP has supported such reform and the bridging of capacity gaps in national institutions. We have introduced Capacity Development Facilities which provide on-demand technical advice for the highest levels of the civil service, together with training, capacity building, and funding for key priorities. These mechanisms have enabled governments to gain access to senior level international expertise which would otherwise have been unavailable to them.

UNDP also helps countries to develop tools for assessing the performance of their public administrations against international standards and principles. We've worked with Vietnam, for example, to develop a Public Administration Performance Index which measures citizens' experience of governance and public administration performance.

We also have a Gender Equality in Public Administration initiative which is working with governments to monitor and advocate for progress on getting better representation of women across all levels of public service.

UNDP engagement on support to public institutions in fragile settings

Post-conflict contexts require particular attention. Both short and long-term approaches to addressing institutional weaknesses are needed if political settlements are to be durable. Overcoming fragility requires the restoration of core government functions and building institutional capacity to manage recovery and transitions.

UNDP currently partners with the World Bank in Somalia on a flagship Capacity Development Programme which supports the government on consolidating core government functions across the civil service and on aid management. The aim is to support the Government to tackle various dimensions of the country's fragility, manage recovery, and build strong public sector institutions which can deliver services to Somalia's people.

UNDP Partnerships with UNDG agencies for Institutional Capacity-Building

UNDP partners with UNDESA in the UN Committee of Experts on Public Administration. Each year this brings together the expertise of practitioners and the latest research in this area. We draw from that a wealth of knowledge and resources, which are then available to assist countries to build stronger and more responsive public administrations.

UNDP also co-chairs with DPA the UN Interagency Platform on Support to Core Government Functions in Fragile and Conflict-Affected Countries. The aim is to strengthen co-ordination across the UN system, 'working as one', to deliver better results on institutional capacity-building in post-conflict environments.

Conclusion

Having effective, accountable, and responsive public institutions is vital for sustained development. UNDP values its many partnerships with Member States on establishing and strengthening such institutions. ■

MEETING THE SCALE OF OUR GLOBAL CHALLENGES

MARGA HOEK
Board member, Dutch Sustainable Business
Chairman, Green Minds – Sustainable Scientist Network
Author, Managementbook of the year 2014 New Economy Business

The year 2016 marks the beginning of acceleration. As we prepare for Cop 22 in Marrakech in November, we increasingly recognize the significant events in 2015 that have marked the threshold of a new era. The United Nations presented 17 Sustainable Development Goals (SDGs) and the COP21 Paris agreement, agreed by 195 nations, to combat climate change set a new direction and scale for global goals. They have turned a page in history. Both were, to a large extent, a message from and for the business world: to create a positive impact on all the assets of the world, and contribute to developing an economy that is here for the world and leave behind the exploitation of a world serving the economy.

This is especially pertinent considering that over 50 of the world's top 100 economies are in fact corporations, and the costs resulting from the damage to our planet are tremendous. In the last decade alone, the world economy suffered a loss of 2.7 trillion dollars because of natural disasters. Business has contributed to the mass destruction, but it also holds the key to the solution.

Capital impact: from moving billions to shifting trillions

The redirection of capital is crucial to accelerate the transition to this new, value driven economy. What we invest in, will grow. What we divest from, will phase out – and it should. In a recent WEF survey, 750 economists said that they see a climate-induced catastrophe as the greatest threat to the world economy in 2016. With this urgency in mind, Achim Steiner, director of the United Nations Environmental Program has proclaimed 2016 the 'Year of Green Finance', knowing that it is crucial to focus on capital investments. And thankfully, we are already seeing an increase in the growth of sustainable capital and a strong divestment from fossil fuels as well as an increase in the growth of sustainable capital and sustainably responsible investing, as there are increasing indications that previously considered risky investments in sectors such as cleantech, are now leading to above average returns. Over 42 billion dollars in green bonds have been issued and the amount of sustainable investments has increased over the past two years by 60%. Market value is increasing rapidly with the low carbon market worth more than 5.5 trillion dollars today, showing growth of more than 3% per year. Last year alone 270 billion dollars was invested in low-carbon clean energy solutions, in addition to at least 130 billion in energy efficiency.

Additionally, thirty stock exchanges worldwide have joined the Sustainable Stock Exchanges initiative, committing themselves to promoting sustainable investments. Divestment from polluting fossil fuel companies is starting to become more prevalent. Examples include the largest pension fund in Washington D.C. which recently announced their divestment of 6.4 billion dollars from 200 of the world's most polluting fossil fuel companies, and the Norwegian pension fund GPFG, the largest investment fund in the world,

worth 750 billion euros, also recently stated that they will drop dozens of coal companies from their investment portfolio. These moves mark a significant step toward addressing climate change and it is becoming evident that a movement is underway and capital is shifting.

The key to unlocking the tremendous opportunities for business for good

My focus is on business as I believe that business can be a driving force. And the market potential for business in this new, sustainable economy is literally a trillion-dollar business case. And we have only just begun. The report, “The Breakthrough Forecast” by John Elkington et.al., defined the most promising developments called the 21 ‘breakthrough sweet spots’ – from 3D printing to sustainable air conditioning and drinking water management to genomics. The new economy shows the potential to produce 1.8 trillion dollars’ worth of revenue and create two million jobs in the EU alone. According to the McKinsey report, “The Power of Parity”, the annual global GDP would increase by an estimated $28 trillion in 2025 if we were to create a more equitable workforce in which woman participate in the economy identically to men. In the context of a broader business case this includes social value and at the same time generates good financial results.

Between Paris and Marrakech

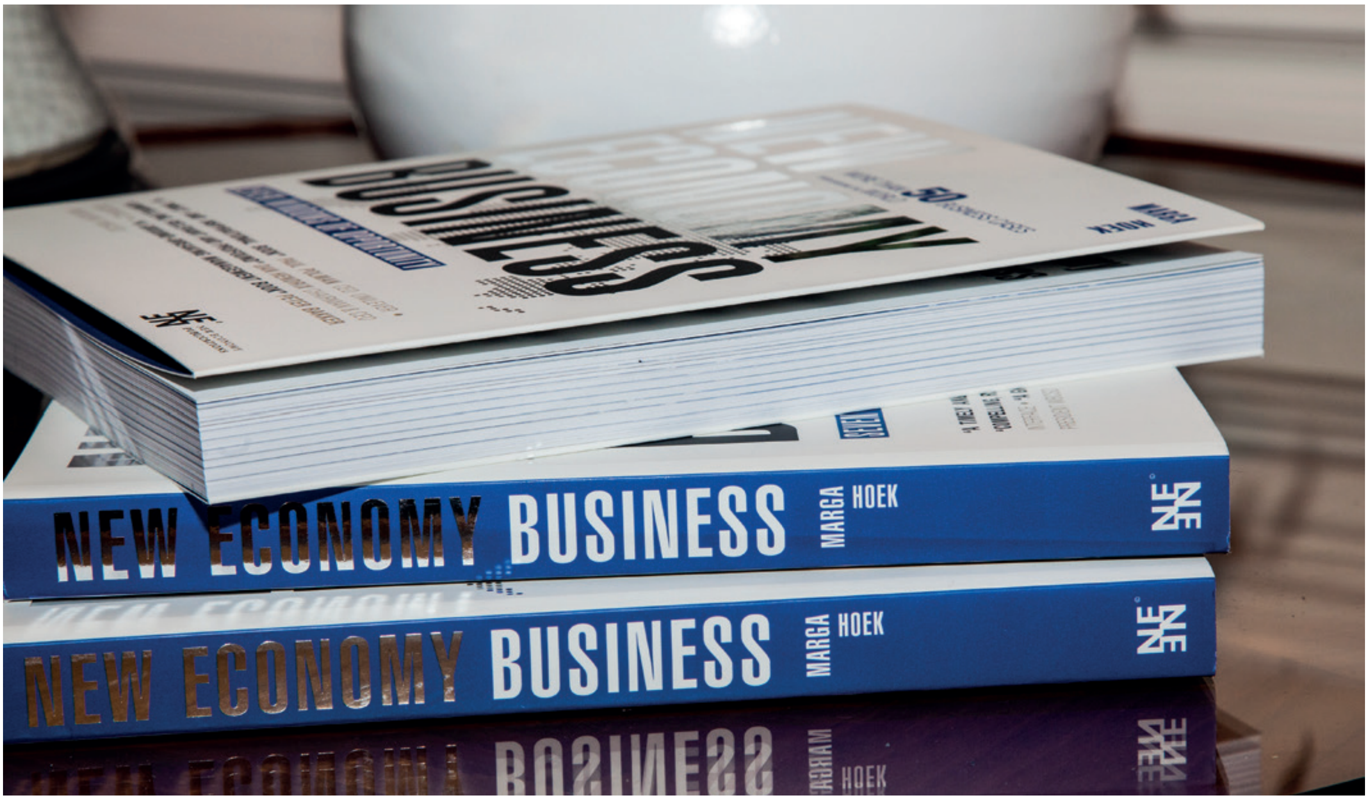
The COP21 Paris agreement made it clear that businesses, nations and whole industry sectors must step up and drive the sustainability movement. As a result, leaders are setting their ambitions higher than ever before for 2020 and beyond. Rachel Kyte, CEO and Special Representative of the UN Secretary-General, Sustainable Energy for All, explained it well during the annual Business and Climate Summit in London in June: “As leaders we need to keep a close eye on not just the short term but on the distant point on the horizon to which we agreed we would arrive, as we lead people, business and partnerships; we have to be able to express this as a future to have hope in, not a future to be afraid of.” CEOs and political leaders such as Jean-Dominique Senard, CEO of Michelin

and Ségolène Royal, French Minister of Environment, Energy & Marine Affairs and President of COP21 recognize, as they demonstrated at the same summit, that crucial focus points include “strong sectorial avenues and roadmaps”, the price on carbon, as well as disclosure and transparency. The minister pointed out how climate change is not just a risk but an “opportunity to be among the first to drive innovation and transformation toward a low carbon economy.” The SDGs are already providing direction in this regard and scaling up innovative ideas and companies in this sense is a must. Aron Cramer, CEO of BSR, also emphasized during the Business & Climate Summit in London, “climate change is not tomorrow’s issue anymore, it is today’s reality.” He referred to a recently launched report “What The Paris Agreement Means for Business” from We Mean Business which says businesses could help meet over 60% of the emissions cuts pledged by nations in Paris if they focus on five key climate action initiatives including ‘Science Based Targets’, zero deforestation, and ‘EP100’ which is run by The Climate Group and the Low Carbon Technology Partnership Initiative.

Since COP21, a page in history has turned and companies, nations, and industries are embarking on a new journey. And more and more businesses are aiming towards a new destination. For instance, Nespresso has launched its 2020 sustainability ambition, The Positive Cup, and the Nespresso Sustainable Development Fund, based on an investment of CHF 500 million over the next six years. Unilever is striving to not merely become CO2 neutral by 2030, but be CO2 positive. In addition to its venture fund of 200 million, Unilever recently announced their commitment to increase its use of crowdsourcing, with the launch of its Unilever Foundry IDEAS which enables innovative startups that are ready to scale up to partner with Unilever and its 400 brands in over 190 countries. DSM Coating aims to see bio-based binders as the worldwide norm by 2030. The global player Interface has just formulated their post-2020 ambitions in a similarly spectacular way as they did a decade ago: one of positive impact. And the list goes on.

With the recognition that enormous challenges require enormous efforts, Unilever and the Global Commission on Business and Sustainable Development (GCBSD) have launched a commission that aims to highlight the significant rewards awaiting companies that take a lead in poverty reduction and sustainable development. “We have an opportunity to unlock trillions of dollars through new markets, investments and innovation — but to do so, we must challenge our current practices and address poverty, inequality and environmental challenges,” said Polman in a statement. “Every business will benefit from operating in a more equitable, resilient world if we achieve the SDGs. I am optimistic to see that new forms of collaboration are being created and are growing.”

Apart from the crucial impact from multinationals, it is equally important to note that the most radical solutions, often with disruptive impact at a fast pace are attributed to small innovative start-ups However, those value-creating start-ups often do not scale up as they should, whereas the world desperately needs their solutions. They need and deserve our support, and the support of large, multinational corporations, to rapidly scale up their innovative and highly effective disruptive solutions. Corporate Venture Capital from ambitious corporations



> The Norwegian pension fund GPFG, the largest investment fund in the world, worth 750 billion euros, also recently stated that they will drop dozens of coal companies from their investment portfolio. ”

means the world to these start-ups, not only because of the investment potential but also because of the tremendous value large corporations can offer them in terms of knowledge, global networks and other necessary means. In other words: access to crucial growth ingredients. In fact, we do not need more start-ups. We need start-ups that scale.

Global scale for global challenges

Scale is necessary and in this regard, governments and politics must be involved as well. On the way to the necessary global system change, a good example has already been set by the French government when on May 17, France's environment and energy minister Ségolène Royal announced her intention to implement a domestic carbon price floor for the French power sector. It would ensure that French power producers pay a minimum carbon price of €30/tCO_2 by charging a tax on fossil fuels used for power generation. The new policy would tax fuels at a level that will make up the difference between the price floor and the carbon price generated by the EU Emissions Trading System (ETS). The main impact of the new carbon price floor on the power sector will be to drive coal out of the mix. The levy will eliminate coal as an energy source by 2019 by increasing its short-term marginal costs to uncompetitive levels. It will also bring in more government revenues. The most important impact of the French carbon price floor may not be on the short-term emissions, but on the EU and global climate policy discourse. It is evident that the real price on carbon cannot wait and more can and should be done to change the system on a global level. In fact, many corporations have been literally asking for it before, during and after Cop 21. We need a system change for business, and for tax levies as well. The SDGs provide a compass by which all areas of business, science and government should be guided. However, the financial system must adjust accordingly. What we call 'externalities' – the price for resources, pollution and damage must become 'internalities' making profit and loss about the value creation and the devaluation of our assets. As stated in my recent book, New Economy Business, this comprehensive approach to value and cost is the essence of accounting in the new economy with the goal to protect our social, environmental and financial assets.

The world needs businesses to take action and lead the movement to a new economy at scale. We must be ambitious and take bold measures, scale up business solutions quickly and effectively, and collaborate to meet the challenges we face with strength and determination. In the near future, business and capital for good will no longer be a frontrunners' exception. It will become the norm. For those businesses that want to be here to stay, business for good is their future. Since that future starts now, let's get to business and see the necessity as an opportunity: a trillion-dollar business case! ■

ZERO TOLERANCE TO VIOLENCE AGAINST WOMEN

PHUMZILE MLAMBO-NGCUKA
UN Under-Secretary-General and Executive Director of UN Women

UN WOMEN
United Nations Entity for Gender Equality and the Empowerment of Women

The issue of violence against women and girls has topped headlines and discussions for decades, yet it persists in every country in the world, with one in three women experiencing physical or sexual violence at some point in her lifetime, mostly by an intimate partner. Gender-based violence robs women and girls of their human rights, and keeps us from achieving our critical goals of gender equality and sustainable development.

UN Women is working toward "zero tolerance" for violence against women and girls. But what does zero tolerance look like?

Firstly, it means moving from talk to action on eliminating violence against women and girls. This includes addressing all forms of gender-based violence, including domestic violence and femicide. It is estimated that almost half of all women who were the victims of homicide globally in 2012 were killed by intimate partners or family members. Zero tolerance includes tackling the high levels of sexual violence in conflict and in refugee camps. An estimated one in five displaced women in humanitarian settings have experienced sexual violence. It means ending harmful practices such as Female Genital Mutilation (FGM) which, according to one estimate, impacts at least 200 million girls and women in 30 countries, and child, early and forced marriage, which is expected to affect more than 140 million girls between 2011 and 2020. It also requires addressing sexual violence on university campuses. A study from the US Department of Justice shows that as many as one in four women are sexually assaulted in college in the US. And it means facing new forms of cyber-violence such as online harassment, threats, bullying and stalking. In the European Union, one in ten women report having experienced cyber-harassment since the age of 15.

This violence is pervasive, but it is not inevitable.

The 2030 Agenda for Sustainable Development, which was adopted by Member States in 2015, includes targets specifically dedicated to ending violence against women and girls (Target 5.2) and other related targets. It reaffirms that violence against women is an impediment for gender equality and sustainable development and emphasizes the principle of leaving no one behind, ensuring that our

> Prevention must start early, and address the root causes of violence, such as gender stereotypes and social norms that foster unequal power relations between women and men. ”

efforts are intersectional and address the most vulnerable and marginalized, including older women, rural women, indigenous women, refugee and immigrant women, women in poverty, women with disabilities, and those in the LBTQI community.

We know that the best way to end violence against women and girls is to prevent it from happening in the first place. Prevention must start early, and address the root causes of violence, such as gender stereotypes and social norms that foster unequal power relations between women and men. We must get men to confront this violence in themselves and in their communities, and teach fathers how to model non-violent behaviours to their sons and daughters and promote concepts of positive masculinity. Prevention also involves addressing the alarming rates of violence against women and girls in public spaces, schools and workplaces, ensuring women's economic autonomy, increasing women's access to education, and boosting their participation in decision-making, including while exercising their political rights.

These efforts must be met with an effective response. Zero tolerance means zero impunity. This includes the adoption and implementation of laws and policies, prosecution of offenders and just and prompt reparations for survivors. It also means improved accessibility of quality services for survivors, effective coordination across sectors and stakeholders and improved data collection. Over the past three decades, we have seen States making progress in these key areas. These efforts are moving us in the right direction, but we still have a long road ahead.

It is also crucial that we sensitize the public to the harm done to women and girls by violence, and galvanize a loud and unified response when incidents occur. We saw the power and attention generated by such public outcry following the drugging, abduction and violent gang rape of a 16-year-old girl in Rio de Janeiro, Brazil this May, and after the brutal gang-rape and subsequent death of a 23-year-old woman on a bus in New Delhi, India in 2012. The media and entertainment industries can also play a vital role in building public awareness. Films such as the Academy Award winning A Girl in the River: the Price of Forgiveness have allowed audiences to understand what is behind so-called honour killings and to build consensus for change. Zero tolerance is underpinned and sustained by better comprehension.

Taking a zero tolerance approach to violence against women and girls is a key component of achieving gender equality and a more sustainable, just and peaceful planet for all. When we work together across countries, sectors, and levels, we can ensure all women and girls lead full and productive lives, free of violence, and eliminate gender-based violence once and for all. ■

LEADING THE AGENDA FOR DATA PRODUCTION TO MONITOR EDUCATION 2030

JENNIFER MORROW
UNESCO Institute for Statistics, Montreal, Canada

Monitoring progress towards Sustainable Development Goal 4 (SDG 4) on education requires more and better quality data, according to the UNESCO Institute for Statistics (UIS). The UIS is launching two new tools to kick-start this process: an eAtlas mapping out the currently available global education indicators, and a Digest that sets out a roadmap to improve the measuring of education quality and equity. These new data products are the latest in a set of UIS initiatives to address the gaps in the education monitoring agenda.

SDG 4 is an ambitious goal, seeking to improve learning and skills from early childhood to adulthood. This will require new and improved data to monitor progress, identify bottlenecks and sharpen policies to ensure that every dollar invested in education makes a tangible difference to people's lives. At present, however, the world gathers only around half of the data needed to monitor progress based on SDG 4 global education indicators.

Launched by the UIS, the eAtlas presents the education indicators currently available for the global and thematic monitoring of SDG 4. Through a ground-breaking series of interactive maps for each of the SDG 4 targets, it pools together a wide range of data sources about access to education, the quality of the education on offer and learning outcomes. The eAtlas is designed to become the go-to source for SDG education data: a place to get the indicators quickly, confident that they are the best and most up-to-date.

With just a couple of clicks, it is possible to explore key issues, such as completion rates from primary to tertiary education, the percentage of children out of school, the amount spent on each pupil's education, and the supply of qualified teachers.

The eAtlas also shows the extent to which more and better data are needed urgently. So the UIS is releasing a new report, the first edition of the UIS Sustainable Development Data Digest, which offers a practical roadmap to develop the key indicators needed to monitor progress towards SDG 4 – Education 2030.

For example, equity is the central feature of SDG 4 and the pledge to ensure everyone's right to education, including the most marginalized groups. Yet according to the Digest, only 14% of the global monitoring indicators can be disaggregated by wealth and only 19% by disability status.

"We aim to revolutionize the production and use of education data," says UIS Director Silvia Montoya. "For example, more than half of the world's countries have data on reading and math skills of children but the results cannot be compared internationally. So we are working with partners to put in place methodologies and standards to transform data into information that countries can use to tackle their own needs while monitoring global progress towards SDG 4. Together, the Digest and the eAtlas are critical tools in this process."

The first edition of the Digest, Laying the Foundation to Measure Sustainable Development Goal 4, finds that many countries struggle to produce the data needed today, and will find it even harder to gather finely-tuned education data in the coming years given the great ambitions of the SDG agenda. It focuses specifically on areas that are difficult to measure, such as education quality, learning, equity and inclusion. The Digest highlights, for example, ways in which parity indices can be used to track inequalities in education and learning among children and youth, according to their socio-economic status, location (rural versus urban), sex and disability status.

The UIS is leading several initiatives in close collaboration with partners to identify and close data gaps and the UIS Digest makes a case for a stronger commitment to achieve key SDG education targets. ■

The eAtlas is designed to become the go-to source for SDG education data: a place to get the indicators quickly, confident that they are the best and most up-to-date. ”

UNESCO

EXCERPT FROM HIGH-LEVEL MEETING

GLOBAL RESPONSIBILITY SHARING THROUGH PATHWAY FOR ADMISSION OF SYRIAN REFUGEES

FILIPPO GRANDI
United Nations High Commissioner for Refugees

During the discussions surrounding the European Union's recent agreement with Turkey, I often thought of the conversations I had in January with a group of Syrian refugee women who live in Istanbul with their small children. One of them, a mother of five, told me that she was hoping for a safe way to join her husband in Europe, but that official family reunification or resettlement programmes took so long and have so many requirements, that she had become desperate. She did not see a future for her children, with her husband abroad. And so, she felt compelled to risk her life and that of her children by taking a boat.

What can we do to help the Syrian refugee women I met in Turkey, a country that is already hosting nearly three million refugees? Women who are desperate enough to risk the lives of their children?

Our proposal today is that offering alternative avenues for the admission of Syrian refugees must become part of the solution, together with investing in helping the countries in the region. These pathways can take many forms: not only resettlement, but also more flexible mechanisms for family reunification, including extended family members, labour mobility schemes, student visa and scholarships, as well as visa for medical reasons.

Resettlement needs vastly outstrip the places that have been made available so far. Last year, only 12 per cent of the refugees in need of resettlement, who are usually the most vulnerable, were resettled. But humanitarian and student visa, job permits and family reunification would represent safe avenues of admission for many other refugees as well, including those who are more prone to falling in the hands of smugglers and those with the skills and talents that will be needed one day to rebuild Syria.

There are two issues, however, on which we need to be very clear. First, opening safe and regular pathways for admission can never be a substitute for countries' fundamental responsibilities under international law towards people directly seeking asylum on their territory. These pathways are additional measures that are needed as part of a global response. Second, while today's meeting focuses on Syrian refugees, it is clear that pledges to offer safe avenues for the admission of Syrian refugees must not come at the expense of other refugee populations.

UNHCR is ready to support States in practical and operational ways to help

UNHCR
The UN Refugee Agency

process larger number of refugees for resettlement or other pathways from the region, quickly and efficiently. This is feasible if resources are made available.

When Canada announced it was going to take in 25,000 Syrian refugees from the region, UNHCR worked closely with the Canadian authorities to develop special modalities to do this expeditiously. Within less than four months, more than 26,000 Syrian refugees had been screened, selected and prepared to start a new life in Canada: an extremely short time span, if one considers that in regular resettlement programmes the procedure can take months, if not years. So, yes, such programmes can be implemented quickly, safely and rigorously, provided the political will and resources are there to do so.

And while we debate here today on how to address the plight of Syrians fleeing war and violence in their country, we should not – as the Secretary-General reminded us this morning – forget that the most important discussions started a few weeks ago in this same venue. The parties to the Syrian conflict, with the mediation of the United Nations and the support of the international community, have embarked upon a fresh and hopefully decisive attempt to bring peace to Syria.

We cannot leave the neighbouring countries continue to bear the brunt of this refugee crisis. The world must show solidarity and share this responsibility. Our aim is to find admission for at least 10 per cent of the Syrian refugee population, or 480,000 people, over three years. This may seem a large number, but it is not if compared to the number of refugees the neighbouring countries have been hosting. If Europe were to welcome the same percentage of refugees as Lebanon in comparison to its population, it would have to take in 100 million refugees! We are already well on our way to meeting our goal, with some 179,000 places pledged to date. This conference today is yet another important milestone in helping to ensure that we maintain this momentum over the coming months and years." ■

A NEW COOPERATION MODEL COULD HOLD THE KEY TO FINANCIAL INCLUSION UNDER THE SUSTAINABLE DEVELOPMENT GOALS

ALFRED HANNIG
Executive Director of the Alliance for Financial Inclusion

The United Nations Sustainable Development Goals (SDGs) were unveiled to the world in 2015, setting the stage for the global development agenda for the next 15 years. Over the last decade, much has been learned about how best to meet development targets and the kinds of strategies, goals and issues that have the biggest impact. Navigating the SDGs roadmap laid out in the Addis Ababa Action Agenda, it is easy to see how the lessons of the last decade are being applied. One of these lessons is that financial inclusion is one of the fastest and most effective routes to poverty alleviation and the provision of safe and sustainable financial services for the unbanked.

Through the SDGs and the Addis Ababa Action Agenda, the international community has made a bold and unified statement on the importance of financial inclusion to inclusive and sustainable development. The Action Agenda includes a dedicated financial inclusion initiative, a welcome sign of high-level understanding that financial inclusion is connected to a broad range of policy areas: economic stability, social inclusion, green finance, gender equality, sustainability, health, education and much more. In fact, this perception of financial inclusion has been evolving for some time, moving slowly but steadily from an interesting fringe subject on the sidelines of global debate into mainstream economic and social policy agendas.

But recognition alone is not enough to confront the monumental task of bringing financial services to the world's 2 billion unbanked. What is needed now is investment in a proven platform that captures our collective global experience and allows every nation to tap into this wealth of knowledge and use it to build and tailor their own policy solutions. Fortunately, we are not starting from scratch.

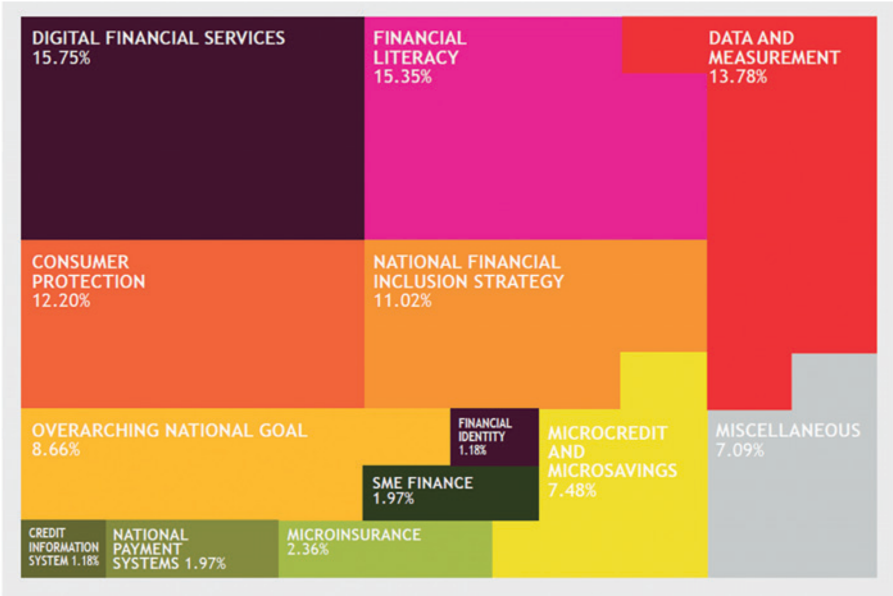
AFI's proven cooperation model

The Alliance for Financial Inclusion (AFI) was founded on the idea that a global knowledge exchange platform was key to expanding and improving financial inclusion policy. Over the last eight years, the AFI network supported by its funders has invested deeply in this platform, and data shows the model is delivering tangible results while saving time and money. AFI's members are actively engaged in advancing financial inclusion at national, regional and international levels through partnerships and cooperative arrangements with other regulators, as well as with international organizations and private sector leaders. The cooperation model our network has developed is a simple one, based on two key priorities:

- Country-led approaches. Rather than looking for a single set of top-down solutions, AFI members focus on the best ways to support countries in designing and implementing high-impact solutions to meet their unique needs and challenges. This approach has proven to be practical, while also creating ownership and a sense of pride as ever more ambitious targets are set and achieved.
- Peer-to-peer engagement: The value of knowledge and experience is not judged by the size or wealth of any one institution. Our cooperation model creates a community of equals where every member, no matter how large or small, is given the opportunity to share as well as to learn.

By following these two basic principles, AFI has created an international community of peers based on trust and mutual respect, and driven by a common vision of advancing financial inclusion. Inside this open space, partners and stakeholders are able to engage on trending issues, explore innovations and refine policies that support sustainable financial inclusion. The growth of our network is proof that the model is popular, but the more important question to ask is: Does the model actually work? This can best be answered by looking at how the AFI Maya Declaration has already altered the landscape of financial inclusion.

Launched in 2011, the Maya Declaration quickly evolved from a simple statement of intent to a comprehensive initiative that has inspired regulators across the globe. The Declaration and the financial inclusion commitments it has inspired represent the AFI cooperation model in action. In just over five years, more than 100 regulatory institutions have adopted the Maya Declaration, with 57 national commitments currently underway and 112 financial inclusion targets already achieved. It is an incredible accomplishment, but represents only a glimpse of what could be possible.

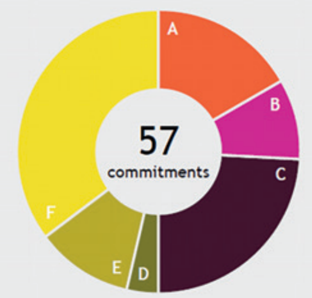


Enhancing G20 leadership through AFI cooperation model

The successes of the Maya Declaration across emerging and developing countries offers an opportunity to be replicated through the leadership of the G20. Investing resources in the expansion of a financial inclusion cooperation platform will not only provide an invaluable tool for advancing the SDGs, it will also solidify the G20's reputation as a global leader.

The G20 has a well-deserved reputation for bridging the developing and developed world, and has always been looked to for leadership in raising and promoting issues that cut across traditional dividing lines of North versus South or developed versus developing. At the 2010 G20 Summit in Seoul, the leaders of the G20 recognized financial inclusion as one of the main pillars of global development and endorsed a concrete Financial Inclusion Action Plan in cooperation with like-minded partners, including the Alliance for Financial Inclusion. Since then, every G20 Presidency has moved the Action Plan forward, not only by advocating for financial inclusion in theory, but also by highlighting the specific and measurable impacts being felt in developing and emerging countries through initiatives such as the Maya Declaration.

With broad international support behind the SDGs and the Addis Ababa Action Agenda, and a proven cooperation model that is ready to be deployed, the international community has a clear



A	Asia	9
B	Europe and Central Asia	5
C	Latin America and the Caribbean	15
D	Middle East and North Africa	2
E	Pacific Islands	7
F	Sub-Saharan Africa	19

Source: Data from World Bank Global Findex, compiled by AFI; AFI Maya Declaration Report 2014

mandate to expand the reach and impact of financial inclusion. It is also the logical continuation of an issue the G20 has been championing since 2010.

The journey ahead

The SDGs and Addis Ababa Action Agenda have provided us with a long-term roadmap for achieving our common financial inclusion goals. But the most important part of any journey is the first step. There is an African proverb that reads, "If you want to go fast, go alone. But if you want to go far, go together."

The journey for the world's 2 billion unbanked is far, but full financial inclusion is not out of reach if we travel the road together. ■

G20 2016 CONFRONTING THE CRISIS OF GLOBAL GOVERNANCE

DR. ABI WILLIAMS
President of The Hague Institute for Global Justice

We are confronted today by multiple crises that are complex in nature and global in scope. Seemingly intractable state fragility and violent extremism threaten the stability of entire regions and worldwide displacement is at the highest level ever recorded. The impact of climate change is already apparent in rising sea levels and altered landscapes, resulting in the loss of habitats, lives and livelihoods. These and other global challenges demand comprehensive, global solutions that are designed and implemented by governance institutions and processes that are inclusive, agile and responsive.

Delivering effective solutions to the transnational challenges of the 21st Century requires reforming important elements of the system of global governance established in the mid-20th Century, and engaging new stakeholders through dynamic, flexible arrangements. It was this imperative that led The Hague Institute for Global Justice and the Stimson Center to convene the Commission on Global Security, Justice & Governance, which was co-chaired by former U.S. Secretary of State, Madeleine Albright and former Foreign Minister of Nigeria, Ibrahim Gambari. The analysis and recommendations contained in its final report, "Confronting the Crisis of Global Governance," aim to develop new frameworks for collective action in response to a range of threats to global security and justice. Several recommendations concern the G20 and its role in global governance.

The G20 is uniquely able to play a pivotal role in enhancing the effectiveness and legitimacy of contemporary global governance – its membership transcends significant geopolitical divides, represents two-thirds of the world's population, and accounts for approximately 80% of Gross World Product. The efficiency of its decision-making processes is undoubtedly enhanced by the relatively small number of actors involved at the leadership level.
To leverage its strengths in support of the global public good, however,

The Hague Institute for Global Justice

the G20 must give serious thought to how it can be more inclusive and consultative, and how its efforts can have a truly global impact.

The theme of the China 2016 Summit – "Towards an Innovative, Invigorated, Interconnected and Inclusive World Economy" – recognizes the need to engage all relevant stakeholders and ensure that the benefits of development and economic growth are shared equitably. The recommendation of the Commission on Global Security, Justice & Governance concerning the transformation of the G20 into the G20+ (which would entail new partnerships and the support of a modest Secretariat) is worth considering in this regard. This reform measure seeks to enhance the inclusiveness and consultative capacities of the G20 by facilitating greater engagement with regional actors (e.g. AU, ASEAN, SCO, OAS), members of the G172, and non-state actors from civil society and the private sector. The goal is to ensure that the policies and actions of the G20 advance justice and security worldwide.

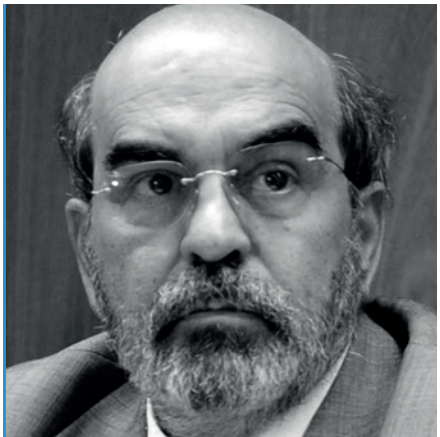
With regard to securing equitable outcomes through development and growth, it is heartening that the 2016 Summit Agenda prioritizes implementation of the 2030 Agenda for Sustainable Development. The call for G20 members to develop National Action Plans, which will form the basis of a G20 Collective Action Plan for implementing this agenda, is noteworthy. In light of the devastating impact of violent conflict on human security and socioeconomic development across the world, the G20's national and collective action plans should pay particular attention to facilitating development in fragile and conflict-affected environments. This can be achieved through conflict-sensitive investment and development aid that does not reinforce inequality; security sector reform that emphasizes the creation of public goods like education and social services; a binding framework for tackling corruption through bottom-up accountability; and funding to support grassroots conflict prevention initiatives.

Even with extensive consultations with non-G20 members, regional and non-state actors, the G20 lacks the representativeness – and corollary legitimacy – of the United Nations. To ensure that its efforts have global acceptance and impact, therefore, it is important that the G20 strengthens its links with the UN, especially on matters which affect non-G20 actors.

The global crises that confront us today – from state fragility and violent extremism to climate change and displacement – call for bold and strategic political leadership from the G20. It must make every effort to harness the considerable capacities of its members in service of global interests. ■

G20 AGRICULTURE MINISTERS' MEETING

3 JUNE 2016



JOSÉ GRAZIANO DA SILVA
FAO Director-General

FAO welcomes the effort of the G20 and the Chinese Presidency to discuss how to promote food security, nutrition and sustainable agricultural growth in the context of Agenda 2030 for Sustainable Development. Promoting sustainable agriculture requires a renewed focus on innovation through research, technology and capacity development.

FAO has already been supporting its Member Countries in the application of information and communications technology, ICT, in agriculture.

ICT helps in the monitoring of crop growth, the utilization of mechanical and chemical techniques, field management and harvest. ICT is also increasingly important in market early warnings and the use of open data.

In addition, telecommunications and mobile devices have the potential to provide internet access for millions of people and connect farmers with digital agriculture.

In order to ensure that farmers fully leverage ICT opportunities, it is essential to provide digital tailored assets, foster capacity development and facilitate the exchange of successful experiences.

FAO is developing a Digital Strategy to support the most vulnerable in rural areas through innovative environments and sharing knowledge. This Digital Strategy intends to integrate different technologies, such as mobile, big data, cloud, satellite, internet of things and social platforms.

FAO is also using digital technologies on other fronts, ranging from the use of mobile phones to report animal disease outbreaks to the use of drones in post-disaster assessments.

One innovative example is our partnership with Google to make use of their satellite data and processing power. The expectation is that the new technologies and data made available through Google will allow FAO to usher in an unprecedented level of environmental literacy, especially in the forestry and fisheries sectors.

FAO's Locust Control Unit is another example of ICT application. It uses Google material to improve forecasts and the control of desert locust outbreaks.

FAO is contributing to the international efforts to address Antimicrobial Resistance, AMR, through the Codex Alimentarius Commission. We are also working closely with OIE and WHO within the Global Action Plan on Antimicrobial Resistance, which seeks to ensure

that all countries have the capacity to properly address this important issue.

FAO welcomes the appeal made by the G7 leaders in their declaration recently made in Japan. I quote: “Good progress has been made to combat AMR including the adoption of the WHO Global Action Plan on Antimicrobial Resistance and relevant resolutions by FAO and OIE. But more needs to be done”.

I agree that much more needs to be done and take this opportunity to call upon G20 Countries to support FAO in this global action plan with voluntary contributions, either financial or in-kind.

Secondments are very welcome, since it has been difficult to find well-trained people in this area.

FAO has been working to reinforce the central role of agriculture and food systems within the framework of the Paris Agreement. Most countries have included agriculture and food systems in their Intended Nationally Determined Contributions (INDCs), particularly in reference to adaptation.

The international community must step up to help countries move to the next stage: that is, to identify specific adaptation strategies, finance opportunities, technology transfer and robust data collection. COP 22 in Marrakech next November will be an important opportunity to do so.

FAO stands ready to support its member countries to identify specific adaptation strategies, such as through the implementation of climate-smart agriculture techniques and practices, as well as through the 4 x 1000 initiative.

We are also pleased with the progress being made in our joint work on the Agricultural Market Information System (AMIS) and the Tropical Agricultural Platform (TAP).

Last year, we launched together the G20 Technical Platform for the Measurement and Reduction of Food Loss and Waste. The Platform website has been online since December 2015 in the United Nations six official languages. I invite you to access it to verify the progress that has already been made. ■

GLOBAL ROUNDTABLE FOR SUSTAINABLE BEEF

The Global Roundtable for Sustainable Beef (GRSB) is a global, multi-stakeholder initiative developed to advance continuous improvement in sustainability of the global beef value chain through leadership, science and multi-stakeholder engagement and collaboration. The GRSB envisions a world in which all aspects of the beef value chain are environmentally sound, socially responsible and economically viable, prioritizing PLANET, PEOPLE, and PROGRESS.

A Global *and* Local Approach

Collaboration and partnership are needed across the global beef value chain to achieve sustainable results. Everyone in the beef value chain — from producers to consumers — must share in the responsibility of creating a more sustainable future. To meet the varied needs of producers, processors, retailers and consumers in all areas of the world who benefit from a wide variety of beef production systems, GRSB supports national initiatives in **Brazil (GTPS)**, **Canada (CRSB)**, **the USA (USRSB)**, **Europe (SAI Platform Beef Working Group; regional)**, **Mexico**, and **Colombia**. These national roundtables are tasked with applying GRSB's global definition to meet their local challenges and prioritizing the criteria that are most important in their regions. They also work to set indicators and metrics for their priorities and establish a verification system.

GRSB also seeks to complement and recognize the work of existing initiatives in other regions around the world, and stimulate and support the formation of new initiatives.

The result is GRSB is able to have local impact through the many members of the national roundtables — over 400 companies and producer associations that together represent over 250,000 producers around the globe.

GRSB Membership

Spanning five continents, the GRSB membership includes a wide array of producers, and producer organizations, as well as commercial suppliers, food retailers, restaurant chains, and civil societies representing the interests of global food consumers, the environmental community, and commerce in the sharing of sustainability knowledge and practical application.

Becoming a member of GRSB demonstrates commitment to improving the sustainability of beef production. It provides the opportunity to engage with leaders from across the beef value chain and participate in shaping the global dialogue on beef sustainability and contributing to the long-term viability of the beef industry.

To Join, please go to GRSBeef.org/become-member

What is Sustainable Beef?

To see the **GRSB Principles** in their entirety, please visit GRSBeef.org

PRINCIPLE 1
Natural Resources

Ecosystem processes are managed through adoption of practices designed to sustain and restore ecosystem health throughout the beef production system.

PRINCIPLE 2
People & the Community

Respect for the rights of all human beings, and recognition and respect for their rich and diverse cultural heritage.

PRINCIPLE 3
Animal Health & Welfare

The use of animals in agriculture contributes to human wellbeing and confers an ethical responsibility to ensure animal welfare.

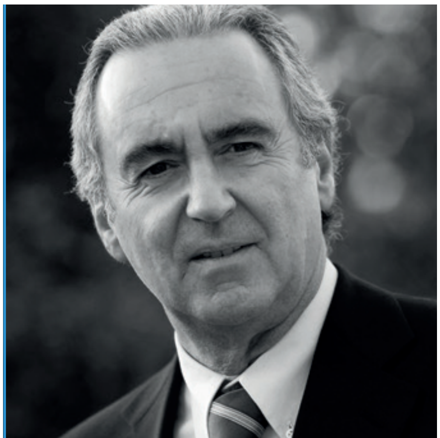
PRINCIPLE 4
FOOD

Integrity and transparency for all members of the value chain in the expectation that continuous improvements will be made in food safety, beef quality, information-sharing systems and waste reduction.

PRINCIPLE 5
Efficiency & Innovation

Increase efficiency and innovation to enhance the ability of the beef industry to adapt to internal and external challenges, underpinned by scientific evidence to ensure environmentally sound and socially responsible beef production, while allowing and improving economic viability.

VITACRESS CLOSE TO THE SOIL



LUÍS MESQUITA DIAS
CEO, Vitacress

Vitacress Portugal is a vertically integrated agri-food business which was first established in 1982 and today employees some 280 people. The core business is the growing, processing and marketing of baby leaf salads, watercress, herbs and other specialty vegetables, serving both the national and European markets.

Operations are located near Odemira, Portugal in an area which not only claims to be the single largest territorial municipality in Europe at some 1720 km2, but also has one of the of the lowest residential population densities in Portugal with just 27,000 people.

The local economic activity is heavily dependent on a mix of agriculture and rural tourism, the latter of which draws in several thousand tourists specifically looking to experience this remote, but ecologically rich area of Portugal.

Our nominated “Quinta do Azenha” located on the South-West Atlantic coastline of Portugal has applied to a specific accreditation of a particularly demanding international chain of restaurants and has received it in view of the extremely high quality of our operations.

Azenha do Mar currently farms some 130 ha of light sandy soils and includes 1km stretch of this pristine coastline between the land marks of Praia D’Amalia and the village of Azenha do Mar.

We grow up 19 types of leaf which collectively give rise to some 3500 tons of produce per annum, with the big five being red lettuce, green lettuce, spinach, wild rocket and coriander .

Our case study proposed to the referred chain is partly shared here to illustrate our ways of working.

We believe our shared values of Ethical, Environmental & Economic, should not come with a price tag for the end user, but instead, be built on one of trust, stewardship and responsible farming.

We recognize that “sustainability” will cost business more but to produce sustainably in the long term, there must

be an ecosystem or trophic pyramid in place if we are genuinely serious about leaving something for the next generations to come.

Our adoption of Conservation Grade under the headings, coupled with the measures we operate under the Agro-technology sector in addition to our latest patented harvesting technology, linked with the opportunities rural tourism has to play in our local economy and how we can contribute, are the keys as to why Azenha do Mar should qualify for a Flag Ship Farm status.

What are the "Good Practices" which make this a Flagship Farm?

Human Health & Welfare

We take great pride in looking after our staff not least because agriculture is one of the main sources of income in the region.

To put this into perspective;

1. Circa 60% of the 48 workers at Azenha do Mar has served for on the farm for between 3 & 20 years.
2. Our staff, irrespective of position or length of service, earns 14% more than the national minimum wage in a region which is already regarded as disadvantaged.
3. All our staff have the opportunity to qualify for an additional monthly premium specifically tailored at promoting an upholding the company's values, objectives and performance. An additional €100 per month is available and awarded at the discretion of how well these targets have been met.
4. Any employee, who has served for 12 months or more, qualifies for free Life & Health Insurance.
5. The company provides free access and subsidized on site doctor's surgeries.
6. All staff has a voice where they can raise their ideas, opinions or experiences through an employee forum held once every two months.

Health & Safety

Quinta do Azenha works beyond recognized farm assurance schemes through the practices of OHSA 18001 and falls under a wider programme across the Vitacress Portugal Group.

Food Safety

The baseline and minimum standard for validating Good Agricultural Practice on our farming operation is Global GAP for which Azenha do Mar has consistently performed and met all criteria since 2003.

However, because we are vertically integrated, have full control & influence over our supply chain, and RTE Salads can arguably be classified as a higher risk category of food when compared with others, we go further.

We operate up to 5 GAP schemes, some of which are well known, others less so, but needless to say the central thread to everything we do is based on HACCP.

Managing food safety hazards and their associated risks are equally applied in an open field environment to that one usually associated with a post harvesting processing plant, eliminated to an acceptable level at our washing, sorting or packing stages of operation.

Rural Landscape Preservation

The unique setting of Azenha do Mar serves as a huge advertisement of how sustainable agriculture can co-exist in an area of outstanding natural beauty.

In 2011 Azenha do Mar became the first farming operation outside the United Kingdom to adopt the Conservation Grade or, "Nature Friendly Farming".

Environment

Our environmental policy operated at Azenha do Mar identifies seven key areas: pollution, soil management, crop protection, water, waste, energy & biodiversity and is aligned and managed to ISO 14001 standards. ■

SHAPING THE FUTURE OF AGRICULTURE AND FOOD TOGETHER

MARK HOLDERNESS
GFAR Executive Secretary

We all know that humanity faces huge challenges in achieving sustainable development and that we must act now. Our agri-food systems, and our very societies, are threatened by unsustainable consumption habits and production practices, by our failure to provide a viable and sustainable living for young people in rural communities and by the looming spectre of climate change and its impacts on entire ecosystems.

We will not overcome these challenges unless we break down the institutionalized barriers and systemic challenges that are stopping agri-food research and innovation from contributing to our sustainable development.

GFAR is a unique open forum and a movement for change, bringing together partners from all around the world, from farmers and consumers to upstream research and across public, private and civil sectors. Our goal is effective, responsive and equitable agri-food research and innovation, changing lives for the better and driven by the needs and demands of societies themselves.

GFAR

Working together across millions of stakeholders and through their representative bodies, GFAR addresses 6 key needs in transforming and strengthening agricultural research and innovation:

1. Inclusive foresight to define future needs
2. Equitable partnership in innovation systems
3. Better investment of human, institutional and financial resources
4. Developing human and institutional capacities
5. Embedding agricultural and food innovation in wider development processes
6. Accountability and demonstrated impacts

Our actions are developed through a rolling series of global conferences, national and regional dialogues: The Global Conferences on Agricultural Research for Development (GCARD).

To meet the Sustainable Development Goals (SDGs), agriculture and food research and innovation must address a complex series of intertwined challenges, ensuring that no one is left behind.

The 2015-16 GCARD3 process links agricultural science and society, with an agenda that tackles these major systemic challenges head-on. How can rural communities shape their own futures? How can we put the resource-poor at the centre of our innovations, and meet their particular needs? Why are potentially-valuable innovations not taken up in practice? Why is productivity still the sole measure used for success, when agriculture impacts nearly all the SDGs? And how can we convert agri-food innovation into enterprise and opportunity for rural youth, in a world facing huge social pressures through the exodus from rural communities?

The GCARD3 process has given rise to vital new multi-stakeholder actions, each driven by the Partners concerned and addressing key practical challenges in achieving agriculture and food related SDGs. These Alliances address:

1. Investments and capacities for integrated innovation.
2. Re-thinking impact metrics for the SDGs.
3. Creating agricultural leaders of the future and reforming education.
4. Sustaining the business of farming.
5. Re-appropriation of rural futures by local actors.

Collective action is vital; no single organization has the capacity to meet all needs in the complex webs and value chains of agri-food innovation around the world and we are all inter-dependent. Each of us holds a small part of the picture required, but without the other pieces we are incomplete.

The G20 has a key role to play here. Three quarters of all investment and much of the capacity in the sector is in the G20 Nations, vital not only for the G20 themselves, but also for enabling sustainable development around the world.

We call on the G20 Nations and their institutions to now become actively involved in these processes.

Through GCARD3, we have together set a clear path forward, in which the future of agriculture is driven by rural communities themselves, led by national actions and commitments, with knowledge shared regionally, and processes supported internationally.

We have agreed Collective Actions that have been readily embraced by all and which can be delivered in practice. They address the need to link agricultural science and society: turning agricultural research and innovation into enterprise and impact; ensuring that the resource-poor farmers have a direct say in shaping their own futures and are no longer the left behind.

These actions will resonate around the world, because they were formulated through the collective voices of those who care about the role of agri-food research and innovation in ensuring sustainable development for humanity.

Want to get involved in GFAR? Simply enter your organization's contacts at: **www.gfar.net/about-us/be-a-partner**

There is no financial obligation or legal commitment involved.

Contact us at: **GFAR-Secretariat@fao.org** and see our website **www.gfar.net**

We look forward to working with you! ■

GCARD is recognized in the 2016 G20 Agriculture Ministers Meeting Communiqué as an important mechanism for increasing exchanges in agricultural innovations and sharing relevant policy experience and successful practices.

GLOBAL WATER SECURITY FOR PEACE AND PROSPERITY

BENEDITO BRAGA
President
World Water Council

Water is a vital element for human life but it is also a limited resource, under pressure from rapidly growing and wealthier populations that are driving ever-increasing demand. Meanwhile, even now, millions of people across the world are faced with water shortages that impact their ability to have a healthy life and to produce food for their subsistence.

Lack of water affects economic growth, food and energy security, and human health. The business community reports in the latest Global Risk Report of the World Economic Forum that water is the highest global concern for the next 10 years. These views are followed by governments as a recent report issued by the U.S. National Security Council claims that "water may become a more significant source of contention than energy or minerals out to 2030 at both the intrastate and interstate levels". Many of the largest river systems in the world run across a number of countries, each with their own political agenda, among them the Nile, Congo, Mekong, Tigris, and the Danube. All are overtaxed and future competition for water rights could ultimately lead to conflicts. Groundwater resources supply irrigation waters for

almost half of the world's agriculture, yet throughout the world they are also being polluted and drained faster than they can be replenished, such as the aquifers in the West USA, North China Plain, northwestern India and the Middle East.

Water, finance and the economy are closely linked. Research led by the University of Oxford shows that the risks of water security cost the world economy in excess of hundreds of billions of dollars annually. World leaders will be forced to pay greater attention to water security, looking at water as a solution rather than a problem. The World Health Organization estimates that every US$1 invested in water and sanitation provides a US$4.30 return, presenting an enormous economic and social opportunity as well as opening the path to sustainable growth.

Water security is an inescapable challenge. G20 policymakers will have to invest more in water infrastructure and governance to achieve water security. Investments may have to be diverted from other important areas to face this challenge. This of course will imply hard political choices. New infrastructure is needed to minimize water scarcity, to reduce the impact of floods and inadequate access to water supply and sanitation.

Meeting the world's water related Sustainable Development Goals, such as universal access to safe drinking water and sanitation, and having enough water for future food production, will cost US$840 billion a year; US$1.8 trillion over the next 20 years. However, that level of investment would deliver more than US$3 trillion annually in economic, environmental and social benefits. The technical solutions already exist for these massive water resources development projects, but economic incentives and innovative financing models will be needed to bring them into reality.

By any measure, water security is a genuine economic opportunity to invest in sustainable and resilient water infrastructure. As such, the business and financial community will be one of the key influencers of government policy, as well as a driver of innovation. In a sign that the international world is getting the message, the Secretary-General of the United Nations and the President of the World Bank announced in January 2016 the formation of a High-Level Panel on Water. This group has the mandate to mobilize action towards meeting the sustainable development goal for water. The World Water Council has been instrumental in mobilizing the political actors towards this initiative.

The Panel is engaging the world's political leaders. It is co-chaired by the Presidents of Mexico and Mauritius and made up of Heads of State and Governments. The panel will focus on mobilizing financial resources and developing implementation strategies. It is an important step forward as it puts water at the highest level of the political agenda.

There is no easy answer to the water crisis, but the challenge can be turned into a major opportunity to solve one of the world's most pressing threats. It is an opportunity to assure one of the most basic natural resources that is critical for continued social-economic development around the world. In mobilizing political action there is the power to induce positive change. If decision-makers at all levels and across sectors meet, discuss and take action together for water security and sustainability, we can move the world forward towards a fairer and more secure future. ■

Meeting the world's water related Sustainable Development Goals, such as universal access to safe drinking water and sanitation, and having enough water for future food production, will cost US$840 billion a year; US$1.8 trillion over the next 20 years. ”

BACK TO BASICS: G20 WATER-NOMICS, TRADE-OFFS & TRADE

CHINAWATER RISK

DEBRA TAN
Director, China Water Risk

In an increasingly interconnected and resource-constrained world, it is important to remember that decisions made can have unintended consequences, to not forget the basics. It is Ramadan as I am writing this and Britain has just voted to Brexit. These events have made me ponder two things on the water front: where we have come from and where we are heading.

Once a year, during the month of Ramadan, all Muslims fast from sunrise to sunset. A good friend recently reminded me that Ramadan originates from the Arabic root ramida or ar-ramad, which means scorching heat or dryness. In a world where for many, water is available on demand from a tap, fasting through a hot day reminds us of the value of water.

Scorching heat, droughts and floods are becoming the norm and it is now well recognised that water is the resource most vulnerable to climate change. Aside from causing a less predictable water cycle, melting glaciers and rising sea levels, climate change also can exacerbate underlying water stress and scarcity. Policy, business and even consumer decisions today regarding climate change therefore also impact the future of water.

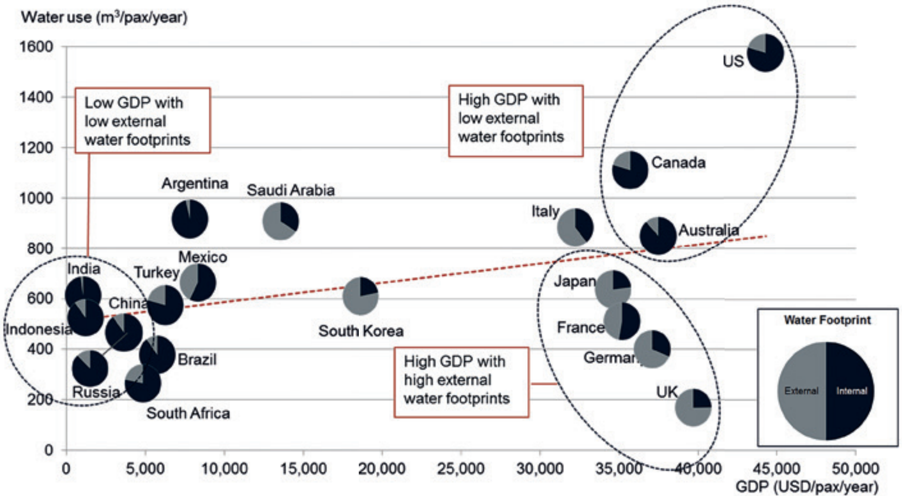
Agreements achieved at COP21 are encouraging but then along comes a decision like Brexit, bringing with it the harsh reality of how difficult it will be for countries to work together. Water sustains us and helps our food grow. We use it to mine ore and generate electricity. It is required in the manufacture of urban essentials from electronics, packaged food & beverages to fashion. It is the invisible hand that sustains the global economy.

An essential ingredient for development

Water is necessary for development but, water resources are not evenly distributed across countries. As nations develop, demand for water rises. Aside from improving water efficiencies, economic mix can be used to manage water use. Shifting from an agricultural economy to an industrial-led one helps alleviate water stress as agriculture typically absorbs around 70% of a nation's water use.

We see many developing countries making this transition into industrial and then service-led economies. China is no different. However, as we highlighted in our recently published joint brief with the Foreign Economic Cooperation Office of China's Ministry of Environmental Protection, "Water-nomics of the Yangtze River Economic Belt: Strategies & recommendations for green development along the river", this is easier said than done. The agriculture sector in China alone employs 228 million people plus it is imperative for China to maintain food security. With an increasingly complex water-energy-food-climate nexus exacerbated by water pollution, China has embarked on a path to rebalance economic development and environmental protection.

Source: China Water Risk based on FAO Aquastat, World Bank, NBSC, Water Footprint Network
Note: For each country, the latest available data for water use is considered (ranging from 2000 to 2014). GDP at that year is expressed in Constant 2005$
This chart was first used in the following two reports:
- HSBC, "NO WATER, MORE TRADE-OFFS: Managing China's growth with limited water", August 2015
- CWR & MEP FECO, "WATER-NOMICS OF THE YANGTZE RIVER ECONOMIC BELT: Strategies & recommendations for green development along the river", June 2016



Tough trade-offs

Development via industrialisation also brings with it pollution. In China, the shift of heavy industry upstream to promote economic development inland has narrowed the income gap between coastal and inland areas but this has also meant that China's waterways are not just transporting goods between provinces but also pollution. There is thus an urgent need to look toward sustainable economic development. Nowhere is this more important in China than the Yangtze River Economic Belt (YREB), which drives 42% of China's GDP and is home to 584 million people. The Yangtze River also provides the parched North with water via the South to North Water Diversion Project. With around 65% of the nation's rice production and over 70% of China's hydropower production, the YREB is vital to ensuring the nation's water, food and energy security.

Better understanding of these linkages between water and development, or water-nomics is thus important, both at a regional and national level. For countries with limited per capita water resources, careful selection of crop mix as well as industrial mix can help manage water use and pollution at the same time. Sometimes, polluters are not obvious: for example, the textile apparel and footwear industry in China discharges twice as much wastewater as China's entire coal industry. This makes the trade-offs less obvious. In another instance, our clean energy and smart future could be on the back of toxic and at times, radioactive discharge from rare earth mining in China which supplies the world with a disproportionately large amount of rare earth minerals. At China Water Risk, we believe a comprehensive understanding of water risk is required and only then can proper management of water through realistic and holistic solutions be found.

Not enough water? ... Trade!

Trade, too, plays an important role as a water-nomic management tool. The chart above shows that to develop, the G20 countries are either using their own water or someone else's through water embedded in imported goods. Three clusters of countries are apparent:

1. The US, Canada and Australia, as large energy and agri-base economies, largely use their own water resources;
2. Japan, France, Germany and the UK have a high GDP per capita with a high external water footprint; and
3. Less developed economies with lower per capita GDP primarily rely on their own water resources.

As the developing G20 countries urbanise and develop, competition for water will increase. Countries with limited water resources may have to follow the path of the Japan-France-Germany-UK cluster and use trade to "balance their water accounts". From a water perspective, trade choices are simple: stop exporting water intensive goods and start importing water intensive goods; stop exporting polluting goods. What then happens to those who rely on these goods? Policy decisions made in favour of domestic water security have clear global impact, putting investors as well as businesses at risk of being blindsided.

Greater-good decisions

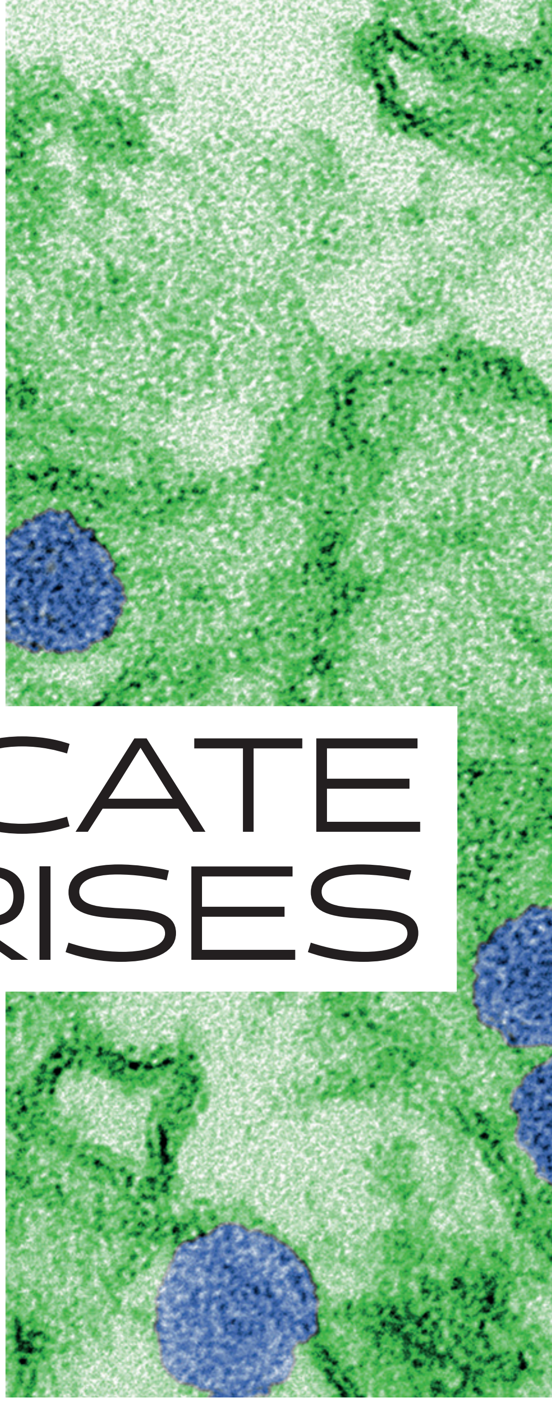
In an increasingly natural resource-constrained world, a "me-first" attitude is a natural go-to. Britain's perceived "me-first" vote for Brexit doesn't bode well. Imagine if China were to do the same: "me-first" on its water resources, rare earths minerals, cotton, textiles, electronics and so on? Quite to the contrary, we all enjoy cheap goods from China at the expense of that country's environment. Also, let's not forget that a few of Asia's mighty transboundary rivers start their journey in China. So perhaps instead of branding China as a "resource predator", it should also be recognized as a "magnanimous resource sharer"?

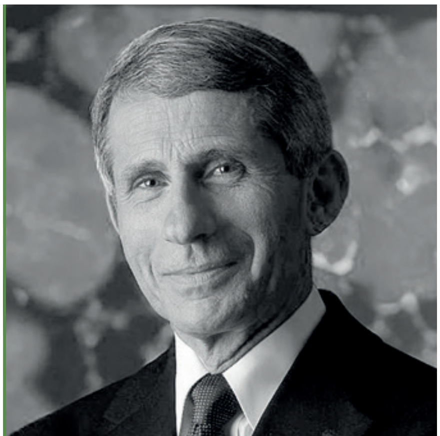
"Greater-good" decisions require G20 nations to make tough decisions; to stick together and tough it out. We can start with power generation and climate change. Developing countries also now have fewer choices thanks to the carbon limitations. "Cheap coal" is no longer available – for the good of the planet. Even cleaner coal is frowned upon. But since power generation is generally the second-largest user of water in developing countries, it is imperative to get the power mix and cooling technologies right for both climate and water. Our global energy choices today, matter for all our water resources tomorrow.

Global decisions at this water-energy-climate nexus matter enormously for Asia. Upper watersheds like the Himalayan Hindu Kush region, as the source of 10 major rivers feeding 16 countries in Asia need to be prioritised along with sea level rise. In an increasingly globalised world, with disparate needs and different voices where "me-first" fears lurk, we need to steer the conversation back to the basics. We need to remember what we all have in common; what we absolutely cannot live without – water. We need to work together to prioritise and protect this precious resource.

We need to rethink our business-as-usual consumption-led development model. Built-in obsolescence must go. China has started ambitious plans on this front, from Made in China 2025 to its transition to a circular economy, but it cannot achieve results alone. We need to do this collectively; there is no exiting this planet, at least not yet. ■

ZIKA AND BEYOND: HOW TO COMMUNICATE ABOUT CRISES





ANTHONY S. FAUCI, M.D.
Director, National Institute of Allergic and Infectious Diseases, National Institute of Health

National Institute of Allergy and Infectious Diseases

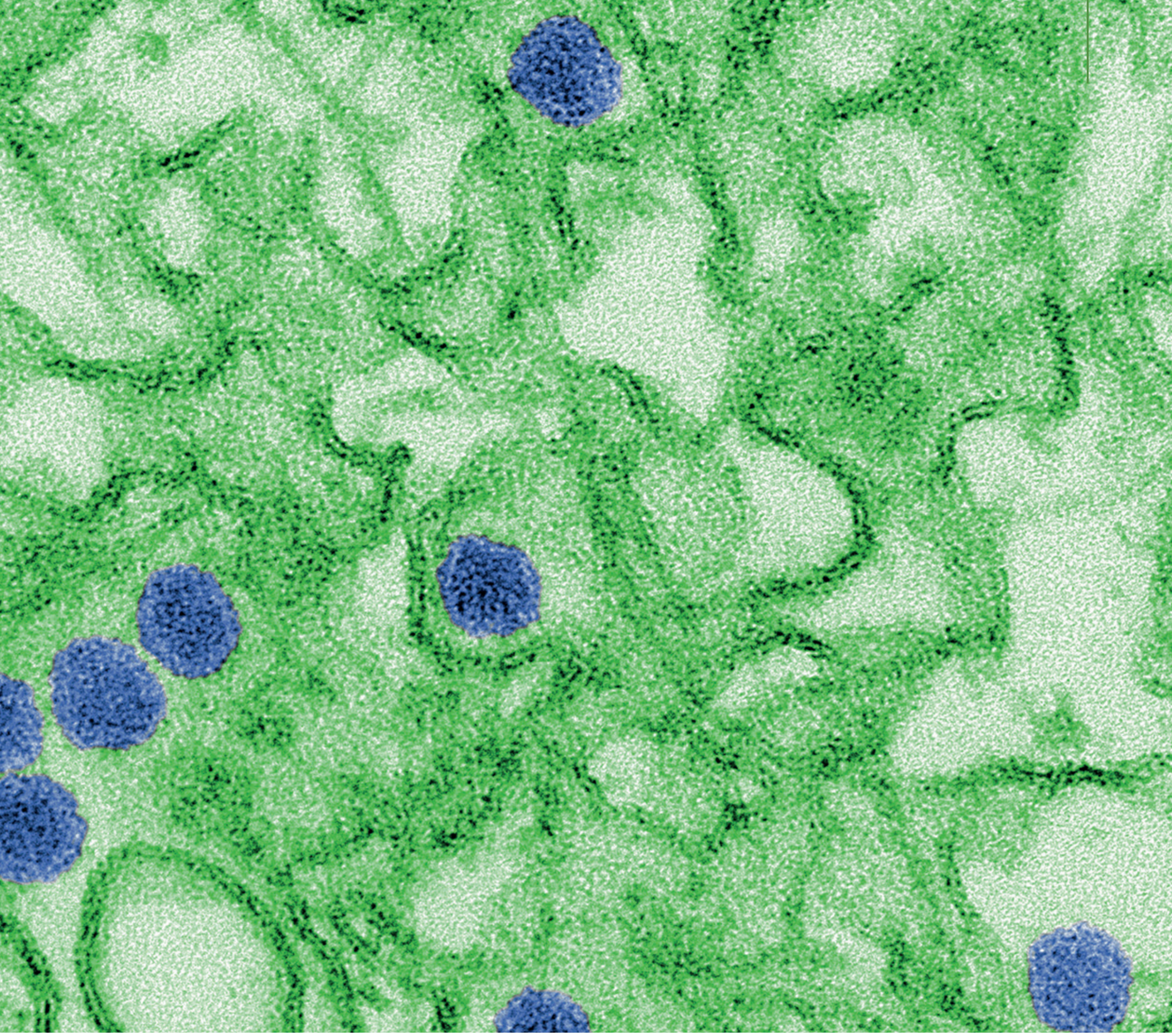
During the Ebola outbreak, we admitted two patients infected with the virus to the NIH Clinical Center. People would ask me, "My goodness, are you putting us at great risk?" So I would ask them, "How did you get to work this morning?" They would answer by saying something to the effect of, "Well, I got on the Beltway and drove to the NIH." This is a high-speed road that encircles Washington, DC, and carries more than 200,000 vehicles per day. I would point out, "Well, your commute posed a greater risk to you than an Ebola patient at the Clinical Center."

We live in a world where we take risks every day. When you have been taking a risk every day, for the last 20 or 30 years, you may be fully aware of the risk, but you have learned to live with it and it does not bother you.

However, it is very interesting to me how people react when they are confronted with a new risk. When a new risk emerges, especially if it is highly publicized, people often start to consider the new risk to be more significant than others that, in reality, pose a greater threat. This is human nature. We saw it with Ebola, we saw it here in Washington, D.C., with the anthrax attacks, and we are starting to see it now with Zika.

Zika virus is not actually new. It was first recognized in 1947 in a monkey in the Zika forest of Uganda. It was not known to infect humans until 1952, and it stayed under the radar screen for a long time. The virus circulated relatively unnoticed in areas of Africa and Southeast Asia until 2007, when it caused an outbreak on the Yap Islands in Micronesia. In 2013, the virus caused a much larger outbreak in French Polynesia. Despite this spread, few people paid much attention to the virus because the disease it caused was thought to be mild.

Now, of course, the situation has changed. The current outbreak that started in Brazil last year has provided new evidence that Zika virus can also



cause a serious birth defect called microcephaly in babies born to infected mothers. Zika virus also has now been associated with Guillain-Barré syndrome. Now, Zika has our attention.

Many people are now hearing or reading that Zika is in their state. By the end of April, the CDC had identified Zika cases in 43 states. Some people are starting to ask whether they should travel to certain states that have reported cases of Zika. In that regard, it is important to note that none of these infections was acquired locally through infected mosquitoes. So far, all of these cases have been acquired through travel (or sexual contact with someone who has traveled) to countries or territories where Zika is circulating locally.

While we have not yet seen locally acquired cases of Zika in the continental United States, this almost certainly will occur. It is unlikely that these locally acquired cases will become sustained and widespread. However, we must be prepared to deal with them. Certainly, there is no reason to panic. We are going to have to do a lot to educate the public about what the risk is and what the risk is not, and to help people keep the risk in perspective. We should all recall what happened in the United States not so long ago, when an individual came from Liberia and was hospitalized with Ebola in Texas, and then two nurses became infected when caring for him. This sad situation sparked a panic that there was going to be a major outbreak of Ebola in the United States. In reality, there was virtually no chance that would happen.

As concerning as the Zika virus is, we must remember and remind people that it is just the latest disease in a perpetual series of emerging and reemerging infectious disease threats. The timeless threat of new diseases – or old diseases that start to appear in new places or new ways – is now amplified by factors such as urban crowding, international travel, and other human behaviors.

An evolving situation such as the current Zika outbreak will create a lot of concern and even panic on the part of some people. We in the public health sector must be crystal clear in articulating exactly what we know and what we still need to know about the threat, and in helping people understand how this new risk compares to risks they willingly assume every day. With that perspective, people will be better able to understand what rational steps they can take to protect themselves. ■

MAKING MENTAL HEALTH A GLOBAL PRIORITY

DR MARGARET CHAN
Director-General of the World Health Organization

Honourable ministers of health and finance, colleagues at the World Bank, ladies and gentlemen, we stand at the beginning of the era of sustainable development. One of the pledges the world has made in the 2030 agenda is to leave no one behind.

If we in public health stand by this pledge, then it is time to bring mental health out of the shadows.

The cultural and historical contexts for taking action in different countries vary considerably, but all face one common barrier: stigma. Mental disorders are something people don't want to know about. They don't want to hear about them, talk about them, or deal with them.

This must change, and I see some encouraging signs. Mental health is a high priority for WHO's 194 Member States, who adopted a Comprehensive Mental Health Action Plan three years ago.

The WHO mhGAP Intervention Guide sets out evidence-based strategies for preventing and treating priority mental disorders. The guide has been translated into 20 languages and is currently being used in more than 90 countries.

The momentum is building, and this is entirely appropriate for a number of reasons.

Common mental disorders are on the rise. They now affect nearly 10% of the world's population. That is a very large number of people who must not be left behind.

These disorders are costly, for economies as well as individuals and their families. We now have good evidence that depression and anxiety disorders alone cost the global economy more than one trillion dollars each year.

We also have evidence that every dollar spent on scaling up treatment for these common conditions brings about a return of four dollars in improved health and the ability to work. That is an excellent return on investment.

But the gap between need and access to treatment remains far too wide. More countries need technical support and guidance to scale up evidence-based strategies and interventions that have been shown to work.

Making mental health a priority for development means bringing these issues under the spotlight.

To implement action plans, countries also need funding. As our latest evidence shows, this will be money well spent.

The more we talk about mental health, the better. As I close, I am pleased to announce that the theme for next year's World Health Day will be depression and suicide.

This will be another excellent occasion to increase awareness on this important public health and development priority and step up our collective action. ■

World Health Organization

Opening remarks at the World Bank and International Monetary Fund Spring Meetings, Out of the Shadows: Making Mental Health a Global Priority
Washington, DC, USA
13 April 2016

The cultural and historical contexts for taking action in different countries vary considerably, but all face one common barrier: stigma. Mental disorders are something people don't want to know about. They don't want to hear about them, talk about them, or deal with them. ”

BUILDING RESILIENT AND SUSTAINABLE SYSTEMS FOR HEALTH

MARK DYBUL
Executive Director of the Global Fund to Fight AIDS, Tuberculosis and Malaria

The Global Fund

What makes a health care system healthy is not so different from what makes an individual healthy. Resilience. Sustainability. Strength.

In every country, resilient and sustainable systems for health are essential. Early on, the Global Fund to Fight AIDS, Tuberculosis and Malaria recognized that only with strong systems for health can we possibly end these epidemics.

Our partnership organization supports AIDS, TB and malaria programs run by local experts in countries and communities most in need. We also support strengthening systems for health. The two reinforce each other. Fighting the diseases reduces the burden on the overall health system, and stronger systems accelerate progress against the diseases.

Today, of the nearly US$4 billion the Global Fund raises and invests a year, more than 40 percent support countries in building resilient and sustainable systems for health.

Increasingly, Global Fund investments go to community facilities that provide a range of integrated services. The facilities offer HIV, TB and malaria prevention and treatment programs, but they go further. These facilities help address individuals' multiple health needs at different points in their lives. In Kenya, for example, TB screening has been integrated into the country's antenatal care platform, which also provides treatment to prevent the transmission of HIV from mothers to their babies. This has resulted in a 43 percent increase in the number of clients screened for TB during antenatal visits. These investments also strengthen the important link between health services and community responses. Communities are always first to respond to disease outbreaks.

Another pillar of a strong health system is its workforce. Investments in health worker training, expand a system's capacity to respond to the country's health needs. In Vietnam, investments in human resources for primary care have

> A culture of continual improvement and innovation has driven a marked improvement in on-time delivery of medicines, health products and equipment in many countries. ”

made services more accessible, timely and affordable for citizens, especially among underserved populations in rural areas. In the focal provinces, more doctors have been retained, service utilization at primary care centers has increased by 7 percent and the rate of inappropriate referrals to higher centers has dropped by 30 per cent.

When systems for health are strong, people receive better quality care and more people can receive it. Many countries with strong health systems are making great strides toward ensuring that distance, inability to pay or stigma do not exclude people from receiving the quality health services they need. Senegal and Kenya have worked to find efficiencies in their delivery of services and health insurance coverage, boosting both coverage and sustainability of their respective health systems.

Improvements to procurement and supply chain management are also helping to build strong systems for health. Over the last three years, a culture of continual improvement and innovation has driven a marked improvement in on-time delivery of medicines, health products and equipment in many countries. Overall savings have come through greater use of a pooled procurement mechanism. The efficiency, robustness and reliability form systems for health that can meet daily needs and for what may come in the future.

When we think about improving health in our world and ending AIDS, TB and malaria as epidemics, we need to think big, long term and efficiently. We need systems for health built to be resilient and sustainable. Retaining attention and commitment to these systems is essential to build on gains of the Millennium Development Goals in order to effectively progress toward the Sustainable Development Goals. We need systems for health that are themselves strong and healthy. ■

CREATING A GLOBAL FOOTPRINT:

TARGETING PRESSING PUBLIC HEALTH NEEDS

The scientific community has made significant progress in efforts to extend and enhance human health. By developing treatments and vaccines to reduce the burden of some of the most debilitating diseases of our time, we have dramatically improved health outcomes for people worldwide.

Despite such progress, critical challenges remain, such as persistent infectious disease threats that put at risk hundreds of millions of people globally, coupled with an unprecedented rise of non-communicable diseases and chronic conditions. We continue to see new outbreaks that threaten human well-being, such as the emergence and amplification of global pandemics in the form of the Ebola and Zika viruses. Moreover, the upsurge of antibiotic resistance, deemed one of the greatest public health emergencies of our time by the World Health Organization (WHO), is also undermining the painstaking progress we have made.

To effectively tackle such an array of global public health challenges, we must continually explore new ways to develop novel drugs, diagnostics, and partnerships that ensure vulnerable communities have access to essential tools that will keep them healthy. Actors across sectors must work together to leverage the strengths and expertise of their unique perspectives and capabilities. Shared goals require shared plans of attack to combat diseases that continue to threaten the well-being of vulnerable populations.

At Johnson & Johnson and its Janssen Pharmaceutical Companies, we are committed to protecting the health of people today and for generations to come. Thoughtful collaborations that spur on-going innovation are critical to this end.

Putting innovation at the core of our R&D strategy propels our activities in the laboratory, and inspires novel collaborations with the world's best scientists and entrepreneurs. Through partnerships with leading organizations in science and policy, we aim to accelerate innovation around the world as well

as ensure access to these healthcare solutions for communities in need.

Our goal is to empower and enable innovation – wherever it may be found. We engage in educational programs, a funding series, and many other initiatives, with the express intent to help innovators build skills, competencies, and networks so they can translate novel ideas into new opportunities that will advance the field of science and medicine.

To amplify the best early stage science, in 2012, our Company established regional hubs, or Innovation Centers (JLABS), in four of the world's leading innovation hotspots: London, Boston, San Francisco, and Shanghai. The goal of these Innovation Centers is to advance the development of new healthcare solutions by catalyzing collaborations in science and technology across continents.

Our JLABS teams further advance these objectives, providing local incubators on-going support (including R&D, funding, and commercial expertise) to foster the growth of a community of entrepreneurs developing new health ventures in oncology, immunology, neuroscience, cardiovascular and metabolism, infectious diseases, and vaccines.

Such initiatives aim to break down persistent hurdles so that innovative science and technology can become a viable commercial solution, as part of a broader mission to improve the health and well-being of people around the world. But beyond science, we recognize the value of collaboration to enhance access to medical tools. We place equal value on developing innovations as we do on ensuring that they reach the families and communities that need them.

One example of the innovation we strive for is our partnership with Children Without Worms. The program fosters collaborations with governments, the private sector, and NGO partners, each united to reach a single goal – eliminating intestinal worm infections (soil-transmitted helminths, or STH) in school-age children. Nearly one billion children are at risk. While STH is rarely fatal, the damage of repeated worm infection causes irreversible damage and prevents children from being able to learn and grow into healthy and productive adults.

Johnson & Johnson provides deworming medicines so that communities in need can access treatment, but deworming medicines are only part of the equation that children ultimately need.

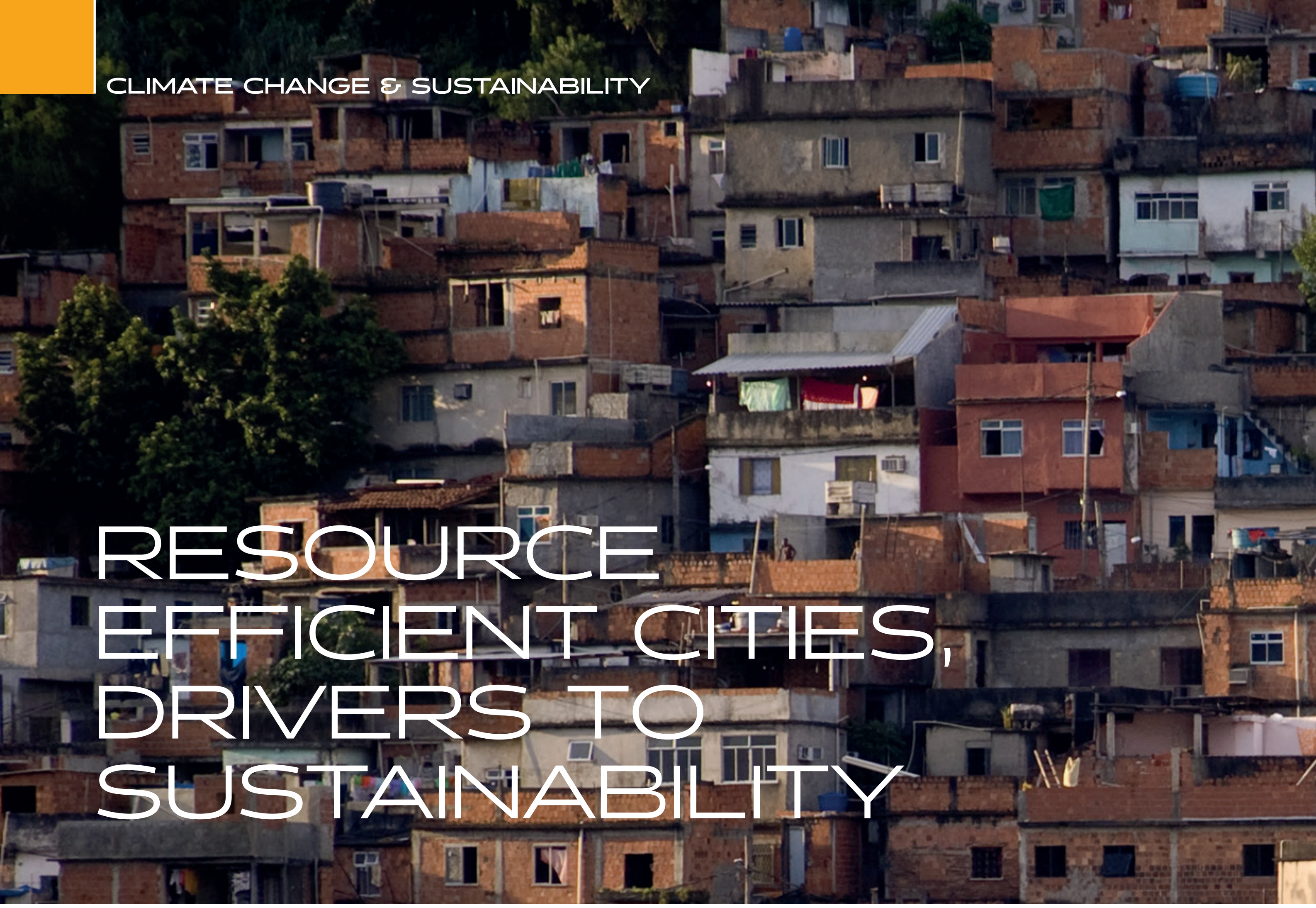
As such, this innovative partnership with Children Without Worms calls on donors and governments of affected regions to support an integrated approach, which includes mass treatment of school-age and preschool-age children with deworming medicines, and prevention via access to and use of clean water and good hygiene practices.

It is a collaboration founded on innovation and part of a global movement to rid the world of an entirely preventable disease.

Beyond our work in preventing intestinal worm infections, we are committed to working with donors and governments, civil society, academia, and the private sector to ensure that treatments that target pressing public health issues become an integral part of efforts to keep vulnerable families and communities healthy for generations to come.

With so many people around the world still in need, coupled with the emergence of new public health challenges, Johnson & Johnson and Janssen understand the importance of overturning every stone to find new medicines and solutions to improve global public health. Collaboration is key to this end.

We will continue to push the boundaries of medicine and science to tackle these challenges, and reverse the damage diseases like STH have caused. We will not stop looking for solutions, and we will call upon the global health community, at all levels and across sectors, to work collectively towards shared goals of a healthier world. ■



RESOURCE EFFICIENT CITIES, DRIVERS TO SUSTAINABILITY

ARAB HOBALLAH
Chief, Sustainable Lifestyles, Cities and Industry, UNEP

The global community has increasingly realized the importance of and necessity for changing our unsustainable consumption and production patterns if to eradicate poverty and deliver sustainable development. This has resulted in the adoption at Rio+20 of the 10 Year Framework of Programmes for Sustainable Consumption and Production/SCP, and the inclusion in the set of 17 Sustainable Development Goals/SDGs of a stand-alone goal on SCP together with related targets in most of the other goals, showing the cross-cutting nature of SCP in support of the sustainable development.

Cities are where most of the consumption and production happen today; with growing urbanization, the importance of city-level actions will be reinforced, making cities primary players to deliver sustainable solutions in the production of goods and enable responsible consumer choices. Delivering SCP through city-level action starts with buildings, the low hanging fruit for energy efficiency and reduction of CO_2 emissions.

And it is in this same spirit that the COP21 Paris Agreement has highlighted that sustainable lifestyles and sustainable patterns of consumption and production, with developed countries taking the lead, play an important role in addressing climate change. And this has been reinforced by the organization of a special Buildings Day, to be replicated in subsequent Climate COPs., and the establishment of the Global Alliance for Buildings and Construction which seeks to enhance communication and collaboration among various initiatives active in the sector, to provide synergy and joint actions.

In applying Sustainable Consumption and Production, cities can be catalysts of sustainable development. The New Urban Agenda, prepared through the ongoing Habitat III process, should provide an opportunity to focus on vertical and horizontal integration and the implementation of the SDGs at the city level. Promoting resource efficiency at city level will increase their economic resilience, contribute to climate mitigation, reduce waste and associated costs, while also improving quality of life;

Together with transport, the building and construction sector lead efficiency and climate mitigation at city and national levels, and it is precisely with this objective that UNEP has decided to focus on this sector, not only through needed policy frameworks, but also and mainly through a multi-stakeholders approach bringing together private sector companies, NGOs, government agencies and associations. Initially focused on performance, assessment of policy instruments, baselines and tools, the attention has been progressively expanded to material and water consumption and waste generation, in addition to energy and carbon emissions. This was then expanded to sustainable public procurement, sustainable tourism and food systems, with a focus on food wastes, notably through the global "Think, Eat and Save" campaign.

With a global programme of work structured around an integrated approach of resource efficiency, climate change and ecosystems management, among other priorities, UNEP is keen in actively advocating for and promoting environmental sustainability and contributing to delivering sustainable development through low-carbon, inclusive, green and resilient economies and societies.

To that end, it is essential that all countries, starting with leading economies such as those under G20, get engaged more pro-actively in an objective and responsible low carbon agenda, bringing government, central and local, together with business in a long term strategic alliance with the aim at delivering the badly needed transformative change in policy frameworks and actions, in market evolution and lifestyles, towards responsible and sustainable consumption and production patterns for delivering sustainability.

Many of the problems that are attributed to cities are consequences of economic growth and consumer behaviour. In this context, it is particularly important to take into consideration the growing global middle class who are not only expected to live longer due to improvements in health care but are also characterized by their increased purchasing capacity. With the expected additional middle class of about 3 billion in some 30 years, the cities can be characterized as the "industries of the three-quarters" in the sense that, as an order of magnitude, cities will host about three quarters, between 70 and 90% depending on sector and region, of the population, the GDP, resources use, waste production and CO2 emissions. This is to say that there could be no sustainability if not at city level and with resource efficient cities with the aim to deliver sustainable consumption and production.

However this requires knowledge about and understanding of resource flows to and within cities. Considering the huge pressures cities will be facing from a resource supply and demand perspective, there is a need to support cities and their networks in better identifying and realising the economic, social and environmental benefits of resource efficiency and sustainable consumption and production. And this will result in improved resilience of cities and thereon of countries from resulting climate mitigation actions.

Ultimately, resource efficient cities combine greater productivity and innovation with lower costs and reduced environmental impacts, making them the engines to sustainability. ■

JERÓNIMO MARTINS BUILDING THE FUTURE SINCE 1792

In 2016, Jerónimo Martins celebrates its 224th anniversary. With over two centuries of expertise in the food business, sustainability has a deep meaning for the Company as it is the expression of a spirit of entrepreneurship and economic, social and environmental responsibility – one that is embedded in the Group's DNA from the very beginning.

Established in 1792 in Lisbon in the historical and commercial Chiado barrio, the Jerónimo Martins small shop soon gained fame for its exquisite food products, later becoming the Portuguese royal family's official supplier.

In the 20th century, the already family-owned Jerónimo Martins Company diversified the business by investing in manufacturing through a partnership with Unilever, established in 1949. It was during the 1980's and 1990's that the Group went through yet another turning point: a new focus on Modern Distribution.

That's when the Pingo Doce supermarket chain was born, being shortly followed by the acquisition of the Recheio cash-and-carry network in Portugal. In 1995, we took the first steps to expand internationally with the launch of the then hard-discount

JERÓNIMO MARTINS
www.jeronimomartins.pt

Biedronka stores in Poland. It was also the time to democratize the access to products through our banners' private brands.

In 2013, we have expanded to Colombia where our Ara chain operates more than 150 neighbourhood stores.

Passionate for Food

We are passionate for food as we strive to develop innovative solutions in order to meet consumer's needs and make their lives easier.

Alongside our strategy to maximize scale economies and expand operations, we follow a series of policies that range from quality and safety requirements to environmental and social concerns.

Nearly 4.5 million clients visit our stores daily and private brands account for a significant part of their food baskets, a fact that strengthens our commitment to selling healthy food as a way of fighting obesity and other diet related diseases.

That's why we keep on improving our products' formulas. As a result, in the last five years we prevented 2,300 tons of sugar, 400 tons of fat and 160 tons of salt from entering the market.

Fresh products are another of our differentiating factors valued by customers. It all starts at a local level.

We work side-by-side with thousands of local suppliers to offer the freshest fruit and vegetables to our clients and we also bring traditional varieties to the mainstream market while promoting sustainable production practices.

The Polish malinowe tomato or harnas garlic are examples of this focus, as well as innovation in perishables like the "frog skin" melon or the "Aberdeen Angus" beef feeding formula, both developed with Lisbon universities.

Sustainable Development Goals

Logistics are a key part of distribution. It represents over 165 million kilometres in truck trips. As carbon emissions are critical to climate change, we are addressing them through efficiency programs. Backhauling is one of these cases in which we maximize route deliveries and cargo – in the last 5 years we saved around 31 million kilometres in routes that prevented the emission of 28,000 tons of CO_2 into the atmosphere.

With thousands of stores spread-out in Portugal, Poland and Colombia, partnering with hundreds of local charities is the path we chose to fight hunger and poverty and promote social cohesion.

In 2015 alone, we invested 17.4 million euros in the communities and reached an estimated half a million people in need.

Nearly 90,000 people work at the Jerónimo Martins Group which implies a broadened responsibility. Apart from training, health and safety focus and compensation schemes, many social programs are a helping-hand in our employees' lives – 17.4 million euros were invested in free medical screenings and vaccinations, dentist treatments and school support that cover books and material for employees' children, among others.

Jerónimo Martins has already crossed three centuries of History, driven by a strong vocation to grow. A long experience of navigation, with winds sometimes for, sometimes against, but in which what always has prevailed is the will to generate wealth while respecting the planet's resources and people. In other words, to create shared value. ■

BUILDING A BETTER WORLD – IN CHINA & BEYOND

PETER BAKKER
President and CEO, WBCSD

By 2050, 70% of the world's population will live in cities, meaning that over the next three decades, cities will need to accommodate more than 2.5 billion additional people. How can the building and construction sector meet this new demand while accelerating the transition to a sustainable world?

Buildings have a critical role to play in addressing climate change. They are responsible for one-third of final energy use worldwide, and over 20% of man-made CO2 emissions. By 2050 cities could account for more than 50% of global emissions as rapid urbanization continues.

China's urbanization has significantly increased energy consumption especially in buildings. The country is projected to see a 160% increase in building energy use by 2050. This equates nearly to 300 additional coal-fired power stations. Urbanization in China will lead to increasing impacts on air quality and national energy security. Energy efficiency in buildings must be scaled up as part of the solution to these issues.

Win-win for climate, business and society

The International Energy Agency (IEA) estimates that the buildings and construction sector will need to reduce its CO2 emissions by over 80% by 2050 in order to achieve the Paris Agreement. However, given that we need to decarbonize existing buildings and deliver infrastructure to house the world's growing urban population, this target must be closer to 100%.

This clearly is a challenge, but it is surmountable. To do so, we must learn to construct zero-emission buildings, even at the bottom of the pyramid.

Reducing energy consumption in buildings through increased energy efficiency is already possible and practical. There are existing financially advantageous building practices and technological solutions for building design, construction and operations that ultimately use less energy to heat, cool, ventilate, light and control. Using today's best practices and technologies, projected energy use in buildings in 2030 can be reduced by 50%.

The recently launched New Climate Economy 2015 report "Better Growth, Better Climate," illustrates that cities stand to gain from adopting efficient forms of development: greater economic productivity and appeal to investors, improved air quality and public health, reduced poverty and enhanced safety, and substantial avoided infrastructure and public service costs. Low-carbon strategies are thus as much about building healthier, more livable and more productive cities as about reducing GHG emissions.

Energy Efficiency in Buildings

The Energy Efficiency in Buildings (EEB) project, led by the World Business Council for Sustainable Development (WBCSD), is a catalyst driving collaboration throughout the entire sector value chain in order to unleash these potential benefits.

The project recognizes that energy efficiency in buildings is a strong business opportunity. It promotes growth and supports the Global Alliance for Buildings and Construction's vision to reach a below 2°C path, while delivering economic and social benefits.

EEB 2.0 member companies launched the Low Carbon Technology Partnerships initiative for Energy Efficiency in Buildings (LCTPi-EEB) to scale up local market engagements around the world, led by the private sector.

The EEB project has developed a replicable methodology for public-private sector engagement, each engagement uses a standardized approach to create a local action plan and a coordination platform that is shaped around local priorities.

This approach has market-tested the methodology in ten cities through three-day 'EEB Laboratory' engagements that involve all relevant local public and private sector stakeholders to pinpoint issues and priorities and create a coalition to drive transformation. We now aim to scale up the impact of this programme through the framework of the LCTPi.

The goal of an EEB Lab is to build a clear understanding of the market, investigate barriers and enablers for greater local market uptake of EEB solutions, define actions to assist market transformation and recruit key stakeholders to develop and implement an action plan for deployment.

EEB Shanghai: Chinese innovators working to revolutionize the local market

WBCSD chose Shanghai for its EEB laboratory for the size and condition of the real estate market, public interest in improving the country's energy security, and clear signs of an emerging interest in energy efficiency. Shanghai is also the most populous city in China, with over 23 million inhabitants, providing potential for a significant carbon impact.

With the Green Building Professional Partnership-China (GBPP), China Business Council for Sustainable Development (CBCSD), and support from member companies, the WBCSD held an EEB Laboratory in Shanghai in February 2016.

The Lab developed an Action Plan and EEB Shanghai was formally launched as a platform in June 2016. The group consists of four action committees:

- Awareness and understanding
- Workforce capacity
- Financing
- Policy and regulation

The committees are coordinated by the GBPP, and work towards short and long-term objectives that aim to bring about radical improvements in building energy efficiency in Shanghai in the coming months and years.

Scaling up EEB advancements around the world

The two most advanced engagements in terms of post-EEB laboratory progress are taking place in Houston and Warsaw. As a more mature buildings and construction market, the EEB Lab in Houston devoted significant time to building renovation as well and new-build, with a specific focus on class B and C buildings.

Recent action by EEB Houston has included filming for a new EEB Live program to improve awareness of the multiple benefits of energy efficiency in buildings, and progress towards the creation of a Career Glide-path to enhance the knowledge of EEB among building operators.

EEB Houston also supported the creation of a local Property Assessed Clean Energy (PACE) program that finances energy efficiency improvements and has a US$ 100 million pipeline of projects. while EEB Warsaw is creating Poland's first Buildings Energy Disclosure Platform.

It is crucial for companies and city leaders participating in EEB laboratories, which clearly highlight how the building sector can support national climate objectives. The goal is to scale up EEB projects to 50 local engagements by 2020, by including more business partners and cities that will lend their urban landscapes to the scrutiny of experts, private and public, to drive transformation from the local level onwards.

Transforming the building market requires action across the entire industry but also from policy makers and end users to overcome key market barriers. National and local authorities must fully understand the value of having energy efficient buildings, now and in the future, to host the world's growing population. It is also a major investment opportunity for the building value chain.

The Paris Agreement and the adoption of the Sustainable Development Goals (SDGs) have created an irreversible and irresistible pathway to a new low-carbon world. In the lead-up to those agreements we saw Governments and businesses step up. Now it is time to turn that ambition into implementation.

We must make a global effort. The technology and the solutions are available today. To achieve wide-scale implementation, we need policy support from local and national authorities, availability of funding – public and private – and local implementation partners to work together. ■

> It is crucial for companies and city leaders participating in EEB laboratories, which clearly highlight how the building sector can support national climate objectives. ❞

GIVING THE CITY BACK TO ITS INHABITANTS

MICHEL SUDARSKIS
Secretary General
International Urban
Development Association

Sometimes cities are badly run, dirty and dilapidated. Many people however believe that it is still worth living in such city. Why? The City is a place that can take people to higher and more complex human levels, even in the most adverse conditions. A city is a place where people can learn to live with strangers, to share experiences and explore unfamiliar interests. Uniformity stupefies, while diversity stimulates mind and bodies. The city offers the inhabitants the opportunity to develop a richer awareness of themselves. This is the power of diversity: freedom from arbitrary identity which if exacerbated can become "a murderous identity"

Understanding the movements that affect the evolution of our cities refers primarily to those who make them: the inhabitants. How people understand and relate to their city? Mainly through the elements that constitute their daily lives: housing, public space, schools, jobs and workplace. To give the city back to its inhabitants implies to act on these different elements.

But what appears is that the people do not feel necessarily engaged in the production of their living environment. Social solidarity is crumbling, living together deteriorates, and trust relationships are weak. It is as if each person was seeing his city not as it is but as it says it is. What we might call the "media narrative" is creating a distorted reality giving way to a wary loneliness that undermines the traditional approaches. The democratic ideal on which was built our conception of the public debate is cracking. Many attempts were made to recover the initial inspiration through digital tools that are thought to be able to replace dialogue, head to head or face to face relations.

We must question this new approach for the technical objects (the smart hype) are not political. They can be tools at the service of a political project provided that the project is previously and explicitly discussed. The political process must take into account changes affecting the lives of the people.

However, the technical objects say nothing of the profound and rapid changes of our societies. These technical tools imply a different approach of social life at the risk of destroying the traditional solidarity without creating new ones. The technical objects establish a mode of organization of society and minds where specialization compartmentalizes individuals, not giving everyone a direct responsibility in producing their living condition, with the consequences that one lose sight of the global dimension and, at the same time, local solidarity.

If we are not careful, we may find ourselves before a dreadful paradox; that is of expecting the tools created by the technical development to be the tools that should save the political process on which we built our cities.

There is a real risk of fragmentation of the city. This fragmentation can upset the delicate "social contract". As Jean-Jacques Rousseau states, "every human being is recognized as a social being who renounces absolute freedom in favour of the general interest, but also is recognized as an individual whose substantive civic and moral rights are protected".

All this determines a choice of society which in turn gives sense to the city: the city is becoming a complex, shared and negotiated place shaped by social and cultural movements, a place that expresses both the recognition of diversity and of common values.

Obviously this is close to Utopia, but it leads to a variety of urban, social, economic and cultural practices: for example, the relationship between citizen engagement and public authority; Relations between public action and private initiatives; "Commons" and commodification; Relations between local initiatives and solidarity and national or supranational challenges; Citizen participation, access to rights, individual and civic liberties, and solutions from new technologies; transformations and possible changes in our ways of seeing, evaluating and acting.

The diversity of practices calls for more innovation in social, economic and political fields, and innovation is needed to design the sustainable and human development of tomorrow.

The real success of the G20 in China will depend on commitments made by the various urban and territorial actors either public, private or the civil society to implement those innovation that will give the City back to its inhabitants. ■

ACCELERATING CYBERCRIME RESPONSE & MITIGATION

The Internet Corporation for Assigned Names and Numbers

DR. STEPHEN CROCKER Chairman of the Board ICANN

DAVID PISCITELLO Vice President, Security and ICT Coordination, ICANN

Online cybercrimes exhibit characteristics that make them particularly challenging to mitigate or defeat: the activities that collectively comprise online criminal acts are conducted transnationally; the perpetrators operate from many countries, often with temporary relationships; and the acts themselves are not universally recognized as crimes in all jurisdictions where the actors or their criminal assets reside. These characteristics make apprehension or prosecution of the perpetrators exceedingly difficult. Perhaps the most difficult challenges security interveners or law enforcement officers must overcome when they combat cybercrime are to be duly diligent or to satisfy due process quickly enough – in Internet time – to contain the harm or minimize the number of victims affected by a given criminal attack.

In this article, we consider private sector frameworks that provide effective, rapid response to criminal activity while maintaining public confidence. We discuss how the successes of these frameworks can serve as the basis for public-private partnerships. We identify challenges that such public-private partnerships face. And we examine and how such partnerships might bring us closer to multinational or international agreements where due process of law is served through a universally recognized judicial system.

Cybercrime timelines reveal important truths

Today, the burden of online criminal investigations falls on private sector actors for phishing, malware distribution, counterfeit goods, identity theft or other fraudulent acts. Figure 1 illustrates a representative timeline for a phishing attack, from the onset of the attack through response or remediation, to the point where a law enforcement officer presents sufficient evidence to obtain a court order in a single jurisdiction.

Figure 2 illustrates a representative timeline for a more sophisticated criminal activity. Here, one or more criminal actors first build an online

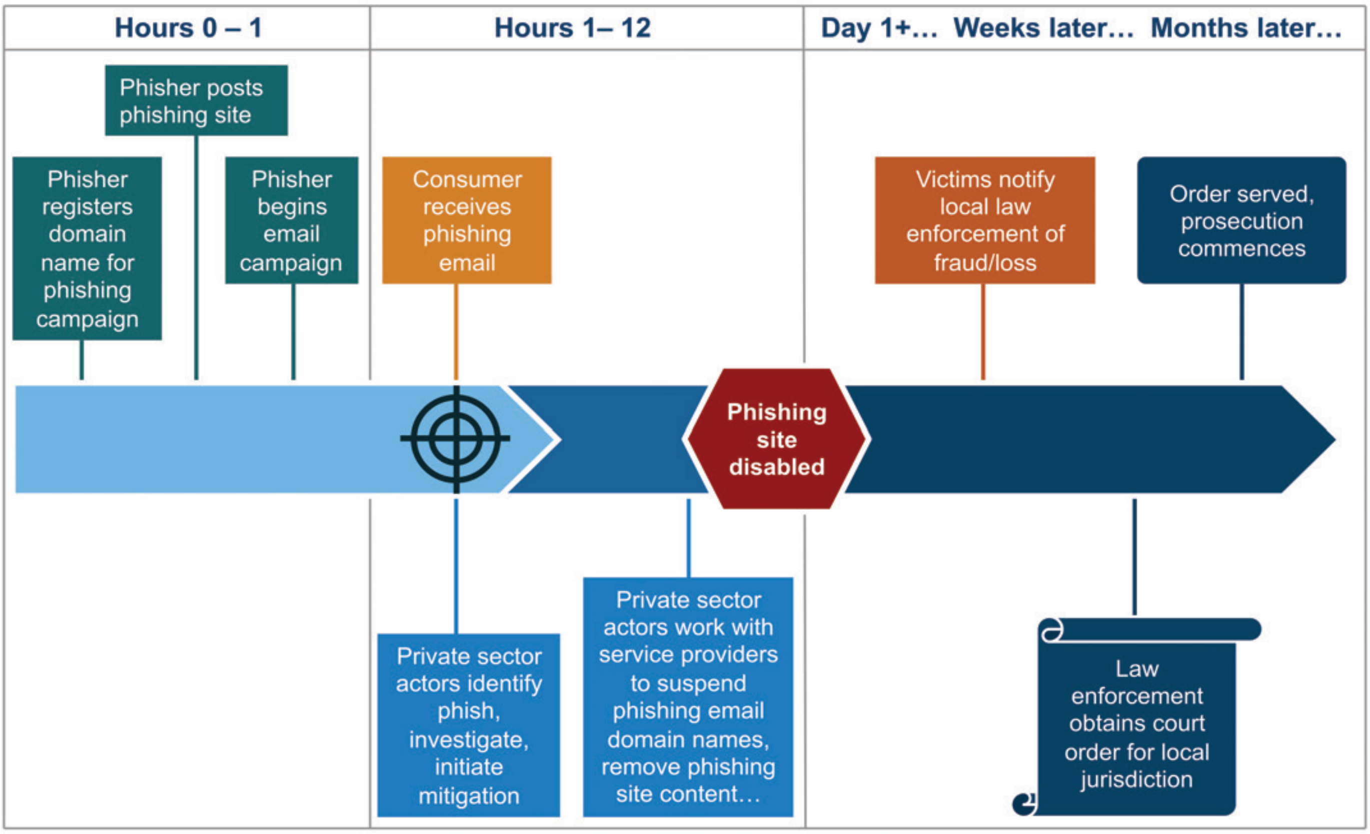


Figure 1. Representative Timeline for A Phishing Attack

crime-enabling infrastructure by combining hundreds, thousands or even millions of infected computer systems in multiple jurisdictions into a botnet. These criminal actors then lease this infrastructure through an underground marketplace to other criminal actors who use the botnet to conduct phishing, distributed denials of service (DDoS) or other criminal attacks.

These figures illustrate that criminal activities – in particular, those that operate on crime-enabling botnet infrastructures – proceed seemingly unabated. Harm or loss from botnets often exhibits what data analysts call a long tail: a large portion of the harm or loss associated with a crime occurs near the onset of the criminal attack, but the damage can continue for weeks, months or even years.

These timelines give us an opportunity to dispel several misconceptions regarding cybercrime. Cyberattacks aren't always sophisticated; often, it is not skilled but unskilled criminal actors who lease facilities and who download or purchase attack software such as phishing kits or denial-of-service clients (e.g., LOIC). Likewise, cyberattacks are not launched from superior technology; the technology advantage that cyberattackers have is not that they have superior technology but that they are able to build criminal infrastructures at low or no cost by exploiting systems they have no authorization to use. Lastly, cyberattackers aren't all comic book supervillains; what is popularly perceived as sophistication is actually "a direct result of the vast number of attack methodologies at their disposal."

Private sector and law enforcement investigators can match or surpass the tactics of criminal actors. They have access to comparable technology, including sophisticated detection or mitigation software. As Figures 1 and 2 illustrate, they are technologically able to mitigate or contain attacks in Internet time. However, the ability to collect and share sufficient evidence to identify, apprehend and prosecute criminal actors is a decidedly different story.

We conclude from these timelines that:

A framework that strips criminals of the advantages they currently enjoy should exhibit the following characteristics: rapid response, effective action and an accelerated process that weathers public scrutiny.

Private Sector Frameworks Accelerate Response to Online Criminal Activity

Today, private sector investigators collect and share information that they can reliably associate with criminal activity through ad hoc trust networks or vetted, trust-based communities. When they cannot obtain court orders, they use the shared or accumulated information to identify acceptable use policy, trademark or copyright infringement, or other policy violations. Identifying such violations gives a service provider the justification to disrupt criminal activity by removing content, suspending website operation, or terminating name resolution of domain names associated with online criminal activity. Similarly, domain name registrar or registry operators may voluntarily suspend an Internet domain name when investigators present evidence that the name(s) have been used to lure victims to sites hosting illicit content or to support criminal botnet infrastructures.

The operative word here is voluntary. The operator will act after reviewing the evidence that an investigator presents, and after considering any business risk (liability) that the operator has determined it would assume by removing content or suspending an Internet domain name

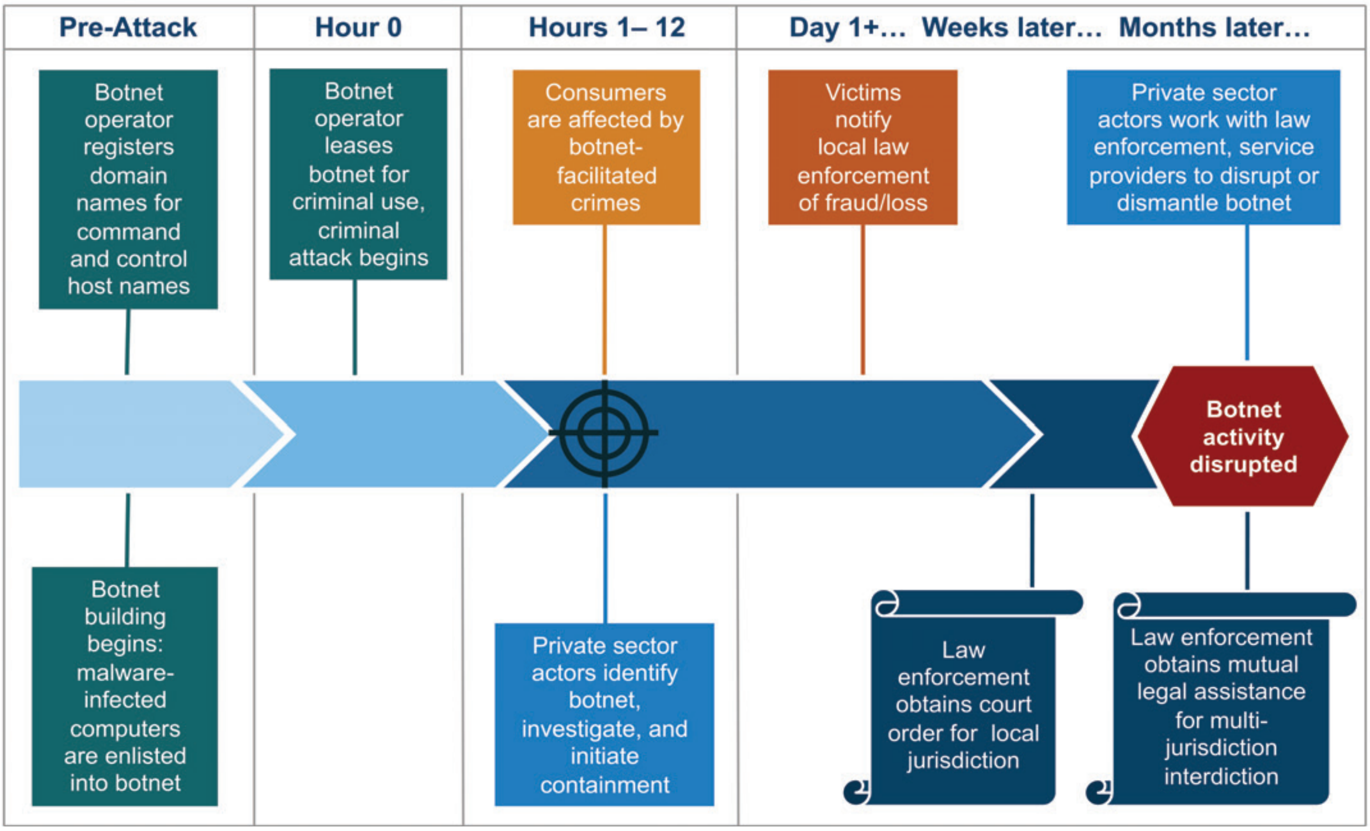


Figure 2. Representative Timeline for A Botnet-Enabled Criminal Attack

registration without a court order. These recourses are effective with operators who are vigilant about criminal activity or believe that managing abuse is a service differentiator.

Some operators and private investigators facilitate such interventions through voluntary collaboration in ad hoc trust relationships at business or even individual levels. By contrast, some operators insist strictly on a court order. Yet other operators adopt business models that facilitate criminal hosting, and thus have no incentive to volunteer.

Role of Trusted Intervener Frameworks

The Anti-Phishing Working Group (APWG) has developed a service that attempts to formalize voluntary intervention. APWG's Accelerated Malicious Domain Suspension process (AMDoS) was launched in 2012 with 12 top-level domains. Through attestations, AMDoS 2.0 can direct requests for domain suspensions to registrars of record. AMDoS employs a trusted introducer model whereby accredited interveners submit suspected malicious domain names for investigation and suspension by sponsoring registrars. The process is characterized in the following scenario.

An authority has processed the registration for exxxample.com. The authority has voluntarily enrolled in the AMDoS program and agrees to review attestations from trusted interveners in an accelerated manner. Through their participation, authorities agree to trust the program, and hence have confidence in the reporting parties.

An accredited intervener submits a phishing abuse complaint through a web submission form. This is a formal attestation that an Internet domain name is associated with a criminal activity; specifically, the attestation would provide evidence that criminal actors have used an Internet domain name to steal identities and commit fraud. For example, an investigator might provide evidence demonstrating that victims have clicked on a hyperlink in an email, http://www.exxxample.com/login.html, believing that they are visiting http://www.example.com/login.html. This malicious hyperlink takes them to a fake login page run by the criminals. On this site, the victim unwittingly discloses account credentials to the criminal actors.

Attestations, designed by subject matter experts and authority representatives, are the means to share sufficient evidence for a domain registry operator or registrar to make a decision to suspend the domain to prevent further harm. This shutdown occurs within hours (eventually, perhaps faster) of the time an intervener discovers a phishing email that is abusing the Internet domain name.

The AMDoS process improves on the collaboration between investigators and registry or registrar operators in several ways.

- The formal vetting process provides a level playing field for interveners. APWG governs the accreditation process for interveners. Candidate interveners must work for an enterprise relevant to the management and investigation of cybercrime. An expert committee prescreens each candidate's technical qualifications, relevant intervener history and reputation to establish eligibility for enrollment.
- Attestations and responses by authorities are auditable, providing the accountability and review necessary to build confidence in the system.
- The AMDoS can be used only for cases involving financial fraud and where there is no dispute over the legitimacy of content.

These practices satisfy the requirements for scalability (large numbers of operators and interveners), accountability (audits and reviews), and public confidence (by establishing a formal vetted process and by not asserting the process as a substitute for legal course of action to resolve disputes over intellectual property or copyrights).

Voluntary action through AMDoS or similar processes only partly fills a void. In particular, where legal rather than voluntary actions are necessary, the processes involving multiple jurisdictions, court orders or mutual legal assistance treaties take too much time to be effective. As a result, information cannot be shared and action cannot be taken against online criminal activities that are global in scale, and in many cases, affect thousands of victims or millions in global currencies.

Extending Cross-Border Frameworks to Combat Cybercrime

Cross-border frameworks should consider certain processes that private sector frameworks employ for circumstances where law enforcement must collaborate to identify or prosecute criminal conduct. The processes provide for:

- Information sharing
- Rapid response to cyberattack
- Timely and effective action
- Confidence, transparency and accountability

Law enforcement's most reliable process today for requesting access to data is through mutual legal assistance (MLA). The process is based on international treaties that are "bilateral, multilateral, or regional agreements detailing how and what kinds of data foreign governments may request." The MLA workflow is a time-consuming process by which cross-border requests for access to data are communicated through formal correspondence. Law enforcement passes requests through its local central authority to the central authority for the receiving jurisdiction in a format specified in the applicable treaty. The receiving central authority reviews the request to determine whether disclosing the requested data complies with the local law and local standards of data protection. If the request complies with local laws, the receiving central authority processes the request.

When reacting to online crimes, minutes matter, but requesting data through the MLA process can take weeks or months. In circumstances where a treaty does not exist, countries may base data sharing on reciprocity or use letters rogatory (letters of request), or they may conduct joint investigations; all of these processes are also time-consuming. The limited scalability or uniformity of the MLA process is exposed in circumstances where law enforcement officers request data from multiple jurisdictions. (For example, when law enforcement officers attempt to dismantle a global botnet, the botnet resources or the conspirators may fall under multiple jurisdictions.)

Several recommended improvements to the MLA process adopt characteristics from private sector frameworks, including:

- Agreement on a cross-border framework that expedites access to data while satisfying human rights and due process with transparency and accountability
- Agreement across jurisdictions on what content or metadata can be shared and what data protections must be guaranteed
- Agreement of submission format, preferably digital, to accelerate, securely route and more efficiently process requests
- Reconsideration of the role of the central authority to lower the administrative burden and focus more on international cooperation
- A rocket docket, where prosecutors and magistrates with cyber – and MLA processing expertise can process requests quickly

> Today, the burden of online criminal investigations falls on private sector actors for phishing, malware distribution, counterfeit goods, identity theft or other fraudulent acts. ❞

Solutions to combatting cybercrime must not compromise the public's confidence and trust in international legal systems. These critical changes are worth exploring further, as they would enable law enforcement to operate in Internet time, and at the same time preserve due process.

We can nullify criminal advantages in technology and expertise by dramatically improving cybersecurity practices, by building capacity among law enforcement, and by harmonizing international criminal law. In addition, private sector frameworks for data sharing demonstrably mitigate or contain certain cybercrimes, but they are only triage measures. What is required is an international cooperative framework for data sharing that incorporates the positive aspects of private sector frameworks so we can methodically strip cybercriminals of their cross-border advantages. ■

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SECURING DEVELOPMENT FUNDS FOR A POVERTY-FREE ASIA

CLARE WEE
Head Office of Anticorruption and Integrity, Asian Development Bank

The Asian Development Bank (ADB) strongly believes that weak governance and corruption hurt the poor most. Despite robust economic growth in Asia and the Pacific over recent years, the region remains home to half the world's poor or those who live on $1.90 a day or less. The misuse and redirection of development funds from their intended purpose will significantly impact ADB's ability to deliver its mandate of a poverty-free region.

ADB has a long history of fighting corruption. As early as 1998, it had developed an anticorruption policy with three objectives: (i) supporting competitive markets and efficient and transparent public administration; (ii) bolstering anticorruption efforts and quality of dialogue with developing member countries; and, (iii) ensuring that ADB projects and staff adhere to the highest ethical standards.

To meet the third objective, in 2009 ADB established the Office of Anticorruption and Integrity (OAI, replacing a previous integrity unit that had been in place since 1998. OAI's mandate is underpinned by ADB's zero tolerance for corruption. It is aligned with ADB's broader commitment to combat

corruption and improve governance as a core strategic objective of its Strategy 2020, and of the Paris Declaration on Aid Effectiveness of 2005 – to which ADB is a signatory – in support of effective, transparent, and accountable aid.

OAI is the designated point of contact for allegations of fraud or corruption pertaining to matters and activities that are supported, financed, or administered by ADB. It is also responsible for ensuring that those participating in ADB-related activities meet the highest standards of integrity.

ADB imposes sanctions on companies and on individuals which it finds to have engaged in fraudulent or corrupt practices. The length of the sanction period will depend on the circumstances of each case. In the case of companies, the sanction period could last up to seven years for first time offenders, while individuals may be sanctioned indefinitely. During the sanction period, the company or individual is ineligible to participate in any ADB activity.

In an attempt to strengthen their anticorruption efforts through a unified and coordinated approach, ADB along with the African Development Bank Group (AfDB), European Bank for Reconstruction and Development (EBRD), European Investment Bank Group, International Monetary Fund, Inter-American Development Bank Group (IDB) and the World Bank Group established the Joint International Financial Institutions (IFI) Anti-Corruption Task Force in 2006.

Four years later, ADB entered into a Cross-debarment Agreement with the AfDB, EBRD, IADB and World Bank. Under this agreement, ADB may cross debar companies and individuals that have been debarred or sanctioned by any of the participating multilateral development banks (MBDs), and vice-versa. The agreement has considerably strengthened the anticorruption tools available to MDBs.

Apart from investigating alleged integrity violations, OAI plays a proactive role in the fight against corruption. It performs an advisory function in the conduct of integrity due diligence involving ADB's operations to safeguard ADB funds, reduce reputational risk, and combat money laundering as well as the financing of terrorism. It also recognizes the need to empower "frontliners" in the fight against fraud and corruption. These frontliners – ADB staff and external partners and stakeholders such as government officials, civil society, and the private sector – have the requisite knowledge and tools to detect and prevent fraud and corruption through workshops, seminars, and other training forums conducted by OAI. Furthermore, OAI conducts project procurement-related reviews which proactively identify vulnerabilities in ongoing ADB projects and recommend measures to better safeguard project resources.

ADB works with its developing member countries to strengthen anticorruption initiatives, improve regulatory frameworks for a better investment climate, and enhance the involvement of civil society in policy development and implementation. These initiatives help ensure that ADB's efforts on anticorruption and governance make a difference, and that they help ADB to reduce poverty and improve lives across the region. ■

ENDING CORRUPTION IS ONE OF THE BEST WAYS WE CAN PROMOTE SUSTAINABLE DEVELOPMENT

YURY FEDOTOV
Executive Director, UN Office on Drugs and Crime

UNODC
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In early May, I travelled to Nigeria to discuss the issue of drugs, crime and corruption with senior government officials. During my meeting with Nigerian President Muhammadu Buhari, I thanked him for Nigeria's willingness to work with the international community to confront crime and said I understood how much damage corruption had done to his country. He replied by asking me for help in the return of the billions of dollars that have been siphoned from his country.

My meeting with the Nigerian president reinforced a key conviction of mine that the international community must redouble its efforts to support and assist countries devastated by corruption's effects. This is especially important in the area of the return of cultural property, as well as the huge amounts of funds stolen from the African continent.

Over recent years a series of embarrassing corruption scandals have shown that corruption is not simply a local issue, but a staggeringly complex global challenge that transcends domestic borders. Today, the impact of corruption is so great, and its impact on development so widespread, that there is a need for a revitalised international approach that brings together all nations in the spirit of partnership and cooperation.

International business, outsourcing and offshore banking are now commonplace, and improved technology and travel mean that countries are now more than ever interconnected financially. This creates numerous opportunities for corruption to set down deep roots, but its victims are not necessarily obvious. The negative effects of corruption are significant in all areas of social and economic development. But it is the weak and the vulnerable who suffer disproportionally from such acts.

When corruption strikes, those who can spare the least suffer the most. The misuse of funds ensures that money needed for education and healthcare is redirected into the hands of the corrupt. In countries that have difficulty providing access to proper medical care, or are struggling to feed their citizens in the wake of droughts and climate change, the disappearance of funds can be a matter of life and death.

It is estimated that the developing world loses as much as US$1 trillion due to corruption. Such an enormous amount demonstrates how necessary it is for the international community to

The international community has started to fight back and now recognises that this crime is not the cost of doing business, but a dramatic drag on the ability of states and the private sector to prosper. ”

integrate anti-corruption activities into their good governance frameworks and criminal justice systems. The cost to society, however, is not only measured in the funds taken, but also in the damage done to communities, as well as the promotion of equality. Corruption enables organized crime to flourish, and like an acid, eats into weak states and compromises criminal justice systems.

Fortunately, the international community has started to fight back and now recognises that this crime is not the cost of doing business, but a dramatic drag on the ability of states and the private sector to prosper. In 2015, Member States adopted the 2030 Agenda for Sustainable Development along with its 17 Sustainable Development Goals. The SDGs seek to promote prosperity and eradicate poverty. Goal 16 recognizes that this is not possible without substantially reducing corruption as well as confronting a range of other criminal issues.

Promoting access to justice, peaceful and inclusive societies and effective government based on the rule of law are the inherent principles of Goal 16. The authority of law, and the institutions of government, are often vulnerable to corruption. Fully functioning legal systems are crucial for sustainable development at the national and international levels. Achieving the targets of Goal 16 is, therefore, fundamental to realizing the entire 2030 agenda, and it forms an essential element of the work undertaken by the UN Office on Drugs and Crime (UNODC).

But, if this work is to be successful, and we desperately need it to be, every nation must become a party to and fully implement the UN Convention against Corruption – UNCAC. UNCAC outlines the most comprehensive set of legal commitments states must enforce to tackle corruption. States that adopt UNCAC agree on measures to detect and punish corruption in both the private and public sectors.

UNCAC also provides a unique means of examining the success of a country's anti-corruption efforts. It provides the framework for an established peer review mechanism that sees countries work together to review each other's anti-corruption efforts. UNODC also assists states in the recovery of the proceeds of corruption, both domestically and internationally via the Stolen Asset Recovery Initiative--StAR.

A partnership between the World Bank and UNODC, StAR works to recover illicit funds and prevent their storage in tax havens. UNODC is also supporting states in implementing UNCAC's Chapter II on prevention. The Chapter helps states to develop accountable, transparent institutions and legislation and strengthens anti-corruption efforts through training and knowledge-based programs.

My experiences in countries such as Nigeria, as well as my work as the head of an organization that has a mission to tackle corruption, leads me to believe that if we are to realise our goal of sustainable development, we must end corruption. ■


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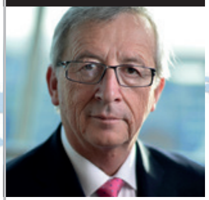
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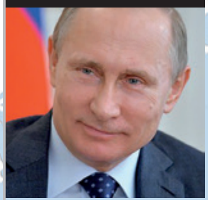
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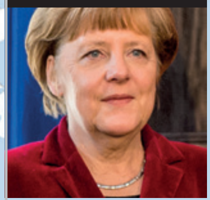
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