

WEX Africa Working Document

11-12 November 2015 | Morocco

- Africa's share of global GDP is predicted to increase from 4% in 2010 to 12% by 2050, with a quantum leap in development expected in many countries.
- Africa comprises more than 50 countries which exhibit huge cultural diversity spanning language, religion, economics, politics and greatly varying degrees of inadequate infrastructure.
- The security of water and energy supply, are a central part of the business risk scenario for all companies investing in Africa.
- Africa's individual economies may be small but collectively are larger than Brazil or Russia.

“ WEX Africa is an international business oriented summit bringing together leaders from both public and private sectors who are tasked with meeting the growing demand for water, energy and sanitation throughout Africa. ”

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Programme Summary : Investing in the African Opportunity

As new investment continues to grow across the continent, the secure supply of water and energy is the most critical factor facing every African government with aspirations to bring about long term improvements in the lives of its citizens.

WEX Africa brings together key decision makers from across the continent to address the issues underpinning sustainable growth. The changing development paradigm means that the opportunity to invest in the water, wastewater and energy sectors, promises real improvements, which extend far beyond the narrow boundaries of the utilities sector and that, will ultimately affect the future prosperity and safety of every country, business and person in Africa.

Without doubt understanding how best to optimise the use of water and energy is therefore critical for business leaders, financiers, policy-makers and water and energy professionals alike, as they seek to bring together the innovations in technology, policy, science , education and finance that will transform potential benefits into real scalable solutions.

WEX Africa is an annual international summit which is part of the portfolio of global events organised by the Water and Energy Exchange. At the kind invitation of our co-hosts ONEE (The National Government Agency for Water and Electricity), it will take place in Morocco from the 11th - 12th of November.

WEX Africa attracts participants from all parts of the continent and as a direct result of our growing success we will be continuing to work with AfWA (The African Water Association) to extend participation in 2015 to even more utilities in many new countries across Africa.

The summit will focus will be on the key topics that will bring about transformational change and support the transition to the more efficient management and delivery of water and energy. The programme of intensive pre-scheduled one to one meetings combined with presentations from experts identifying partnership and investment opportunities throughout Africa, offers your organisation, the quickest and best way to build networks and market intelligence in many markets across the continent.

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1. Welcome Address

Samir Bensaid, Director General, IEA-ONEE; **Dr Sylvain Usher**, Secretary General, AfWA (African Water Association)

As part of the fourth WEX Africa International Trade Mission the opening will review the region's achievements, upcoming projects and challenges.

2. Opening Keynotes

Hon. Jumanne Maghembe, Minister of Water and Irrigation, Tanzania; **Said Mouline**, Director General, ADEREE

Africa comprises more than 50 countries which exhibit huge cultural diversity spanning language, religion, economics, politics and of course varying degrees of inadequate infrastructure. WEX Africa will present an overview of the continent's achievements and ongoing projects through the eyes of prominent regional leaders.

3. Endorsing sustainable PPPs for the prosperity of Africa's future generations

Piers Clark, Director at Global Water Development Ltd, a Blackstone Portfolio Company ; **Ouidad Benhaddou**, Head of Water Programme, Japanese Agency for International Cooperation (JICA) ; **Samir Belrhadoria**, DG, Moroccan Infrastructure Fund ; **Ahmed Bouari**, Director of Irrigation, Ministry of Water and Irrigation Morocco; **Mokhlis Habti El Idrissi**, Investment Director, AfricInvest; **Edward George**, Head of Group Research, Ecobank (tbc)

"It is important to remember that the so-called "New Africa" is made up of 54 countries in five regions. The only safe generalisation is that Africa is planning, managing and starting to finance its own destiny" Donald Kaberuka, President, AFDB. Access to finance is the lifeblood of water infrastructure delivery, as is the packaging of the funding model for each project or groups of projects.

- How can public and private sectors work together to ensure more money is found for the provision of basic infrastructure?
- What is the role, operations and impact of IFI investments in Africa?
- How can leaders engage, coordinate and leverage different sources of funding?
- Considering the magnitude of the current global financial position, how do we look for innovative means to increase our support to the private sector in Africa?

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4. Catalysing sustainable investment on water and sanitation infrastructure in Africa

Abdelmajid Hammouda, Director General, ONAS Tunisia; **Mohamed Ouahabi**, Senior Water and Sanitation Specialist, AFDB; **Joerg Dux**, Division Chief Water Resources North Africa, KFW Group; **Soraya Sebti**, Sustainable Development Director, BMCE Bank; **Wang Wei**, Director of Infrastructure, China Africa Development Fund

Investing is urgently needed to meet the development goals on water system projects and improvements.

- How do African funds differ from those of developed markets?
- Recent successful and unsuccessful examples, and lessons learnt.
- Mobilizing sustainable, high-impact PE investments in Africa.
- Infrastructure as a pan-African private equity opportunity
- How to bolster private investors' contribution to infrastructure investment with innovative funding models.

5. Desalination in Africa: Vector of Development

Mohamed Chaffi, Deputy Director, Beni Saf Water Company; **Khalid Tahri**, Technical and Engineering Senior Manager, ONEE; **Azzedine El Midaoui**, President, Moroccan Desalination and Membranes Society; **Mohamed Dahech**, Director General, SONEDE

Desalination in Africa's coastal regions is increasingly being seen as the answer to securing water supplies.

According to the International Desalination Association (IDA), desalination is used in more than 100 countries, with more than half the freshwater output used in the Middle East and Northern Africa. Desalination is already widespread in both North and southern African countries as this year Africa's largest seawater reverse-osmosis desalination plant will begin to supply water to the people of Algeria's second-biggest city Oran.

- Is Desalination the answer for Africa?
- Scale projects and new approaches
- Water availability and demand assessment of climate change impacts on both resources and demands
- Energy Needs assessment of desalination and the potential for utilizing renewable energy (primarily CSP)

6. The Food, Water and Energy Nexus in Africa

Chair: Dr Sylvain Usher, Secretary General, AfWA (African Water Association);

Speakers: Ahcene Ouzane, Director General, Algerian Energy Company (tbc);

Mahmoud Hafsi, Head of Knowledge Management, ONEE

Water and energy inputs are inextricably linked to the issue of food security. According to the Oxford Economics *"By 2030, Africa will be home to 16 cities with a population of more than five million"*.

The complex relationship between water, food and energy in Africa of rapidly increasing urban populations requires careful coordinated management in order to mitigate the increasingly manifest imbalances in water, food and energy security.

- What is the importance of an integrated approach between governments, municipalities and larger commercial users to enable better decision making?
- How can Africa best leverage its food, water and energy resources for sustainable development?
- In what ways will the reuse of wastewater provide an alternative safe source for water for food production?
- The need for partnerships designed to solve problems using public, private, funder, and civil society networks
- How can water and energy efficiency be increased in all aspects of food production?

7. The Future for Renewable Energy in Africa

Tarik Hamane, Power Generation Projects Director, ONEE (tbc); **Meryem Lakhssassi**, In charge of Sustainable Development, Moroccan Agency for Solar Energy (MASEN) (tbc); **Said Mouline**, Director General, ADEREE; **Akila Djoudi Gharbi**, Research Director, CDER ; **Abdelkrim Ghezal**, Renewable Energy Director, ANME; **Sam Amadi**, Chairman, Nigeria Electricity Regulation Commission; **Isaac Adu-Botchway**, Commercial Manager, Electric Company of Ghana; **Mohamed Akli Remini**, Executive Director, Sonatrach (tbc)

African Countries will need to spend at least 6% of their GDP on energy over the next ten years in order to sustain their economic growth. The critical challenge of bridging the energy gap is a priority for business leaders, politicians and IFI's.

The continent's abundant solar and wind resources should mean that it is ideally placed to be a new frontier for clean energy investment however so far of all of the continent's Africa has benefited the least from the annual US\$7bn CDM market. The picture is markedly different in the North of the continent where grand plans are being drawn for a US\$64bn super grid which could supply all of Europe's energy needs.

The World Bank estimates that could provide more than 170 gigawatts of additional power generation capacity (doubling the region's current installations) through low carbon energy projects such as CHP, biofuel production, transportation and energy efficiency.

- To what extent will Africa remain reliant on fossil based fuels for its energy needs?
- What is the outlook for renewables and will the countries of North Africa continue to lead the way in adopting and implementing renewable technologies?
- Can lessons learnt from the experiences of Morocco, Tunisia and Algeria be applied to the countries of Southern Africa?

8. Hydropower and Dams: a Solution to Energy Poverty in Africa

Enrique Cifres, Chairman of the Board, ICOLD; **Ahcene Ouzane**, Interim Director General, Algerian Energy Company; **Abdessalem Ziyad**, Director of Research and Water Planning, Ministry of Energy, Mines and Environment of Morocco; **Brian Molefe**, Interim Chief Executive, Eskom; **Sandile Ntanzi**, Chief Director, South Africa – Department of Energy, (tbc)

Energy poverty is a serious issue in Africa. Over half of the million people living in Africa lack access to electricity and it is scarce in countries such as Chad, Liberia, as well as South Sudan, where only 1.5 per cent of people have access to energy.

Hydropower produces more than three-quarters of the world's renewable energy output each year. Its carbon emissions are far lower than those from all other renewable sources, including wind and solar. With no CO₂ or gas emission and high energy payback, hydropower supports clean development and is fully renewable and sustainable.

In a continent rich in lakes and rivers, the opportunities for expanding hydropower are huge.

- The GERD: a key for African hydropower?
- Case study: Congo, Niger, Orange and Senegal rivers
- The role of hydro in African regional development
- Public safety around dams

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9. Wastewater Treatment and Water Reuse

Chair: Jack Noble, Commercial Director Europe, Middle East, Africa and India, Koch Membrane; **Speakers:** El Moutaoikkil El Barakka, Executive Director, OCP Group; Nora Mihoubi, Research Director, ONA Algeria; Saad Azzaoui, Director of Asset Management, LYDEC

What are the common challenges restricting investment in wastewater treatment processes across Africa? This session will examine key issues such as:

- Role of policy makers in ensuring better husbandry of water resources by industrial users
- Protecting our Most Precious Resource: Tackling Water Pollution and Improving Water Quality
- How can public and private sectors work together to enable better treatment of wastewater both from municipal and industrial sources?

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10. Irrigation Potential in Africa

Ahmed Bouari, Secretary General, Moroccan Ministry of Agriculture

Agricultural productivity has hardly increased the past years and, overall, cannot balance population growth. Irrigation is expected to gain value but meanwhile the availability of fresh water and the sustainable use of soil resources is under growing pressure. It is therefore necessary to find new ways to increase food production in irrigated areas in Africa, while securing healthy environments.

11. Industrial Water

Water recycling is becoming a key part of competitiveness and corporate social responsibility. Why aren't all industries using water reuse as a best practice? What will industrial water reuse look like in a few years? The technology and processes exist today to bring water recycling to companies to help meet environmental challenges and to reach supply chain goals. It is both a bottom line and a "green" solution.

- ZLD – is there an environmental benefit for Africa?
- What social impacts will corporations achieve through better water and wastewater treatment?

12. Non-Revenue Water and Leakage: The African Context

In most parts of the world, water infrastructure can be characterized as outdated, overused and under serviced, nowhere are the effects of this issue more evident than in Africa. Manifestly, high levels of NRW are a common theme throughout the globe and the annual cost of NRW worldwide is estimated at \$14 billion. However, in the minds of many important stakeholders, it appears an “out of sight, out of mind” mentality prevails, which means the cost of tackling these problems in the future will continue to rise exponentially.

- What are the impacts of not tackling the problem?
- Do regulators and investors have a role to play in driving better compliance with NRW targets?
- What is suggested for water loss management and improvement of returns on investment?

13. Sludge Management

Hassane El Othmani, Head of Service at the Sanitation and Environement Directorate, ONEE

Sludge management is a key battleground in the moves towards a zero waste society. What are the options for Sludge management and disposal in Africa ?

14. Smart Cities

When compared to mature cities like London and New York, African cities can currently be considered to be behind the ‘competitive’ curve. However major ICT companies are now predicting that Africa will be “the next big market” and a recent report by Deloitte claimed that African cities are “ready to leapfrog the competition through smart city technologies”.

- Why cities are more important than countries?
- How can the smart city model be adapted for Africa?
- Why are African cities advantageously positioned to start adopting Smart City technologies thus gaining a competitive edge into the mid twenty first century?
- Using technology to boost economic development.

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WEX Africa Retrospective

The session will reflect on the 4 years past since the launch of the first WEX event in Africa and this by sharing successful projects and partnerships born during the event. We will celebrate achievements but also highlight some of the region's untackled issues and more.

WEX Business Forums

The WEX Business Forums are Regional roundtables where few panellists gather to answer and debate a series of questions. The audience is invited to join this fun, casual and entertaining industry debate.

North Africa Business Forum

Mokhtar Jaait, Head of Research and Development, IEA-ONEE; **Hassan Boukouta**, Director, Régies des Services Concédés au Ministère de l'Intérieur (DRSC) (tbc); **Ahcene Ouzane**, Director General, Algerian Energy Company (tbc); **Zidane Merah**, Director General, Algerian Water Company **Adil Daoudi**, Chief Planning and Investment officer, RADEEMA (Régie Autonome de Distribution d'Eau et D'Electricité de Marrakech)

- Role of policy makers in ensuring better husbandry of water resources by industrial users.
- What economic and social impacts will corporations achieve through better water and wastewater treatment?
- How can corporations work with utilities to get more money into the system in order to mitigate the risks of poor water and energy infrastructure?
- Can corporate users drive the adoption of new technologies for water and waste water?

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Eastern and Southern Africa Business Forum

Hon Prof. Jumane Maghembe, MP, Minister for Water of the United Republic of Tanzania; **Dr Vainio Shivute**, CEO, Nam Water (tbc); **Silver Mugisha**, Managing Director, NWSC Uganda; **Stephen M Chege**, Commercial Director, Nairobi Water

- Key policies for adaptation to climate change and population growth to maintain sustainability.
- Effectiveness of the local regulatory frameworks and institutions
- Investment in the development of sustainable, alternative and renewable technologies

West Africa Business Forum

Dr. Abdoul Bal, Director General, Senegalaise des Eaux ; **Engr. Benson Ajisegiri**, Head of Water Reform and PPP, Federal Ministry of Water Resources, Nigeria; **Ahmed Ould Weddady**, Sanitation Director of Nouakchott City – Mauritania; **Abderahman Dembele**, Deputy Director, Somagep Mali

- Building Critical Mass
- Thinking about the long term whilst also focusing on opportunities
- Looking at the market through trade zones rather than country by country

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