

Africa Water Week: Speech

CLIMATE CHANGE: Adapt and mitigate ... or fail

Ladies and gentlemen,

Thank you all for joining us.

It is my immense pleasure to share some thoughts with you this evening on the future of the continent's water resources in the context of an ever changing environment, where climate change and population growth take center stage.

Given how much stress they have been putting on our continent's water resources, how much more pressure is anticipated - and how this is likely to affect our socio-economic development - we cannot afford to look the other way.

Today, I will specifically focus on climate change and the effect of global warming on our water resources, because it is after all the *one* change that will affect every part of Africa **indiscriminately** -- whether you live in rural or urban areas - whether you are rich or poor.

My hope is to leave you with some important thoughts about what you can do to secure your water future, and inspire you to take immediate actions within your community, time is not on our side.

My objective is to leave you with some tips to help you design your roadmap to adaptation.

Our lives, the lives of the members of your community and our biodiversity depend on it.

My name is Akissa Bahri; I am the coordinator of the African Water Facility, an initiative of AMCOW administered by the AfDB.

I have spent the last 35 years working on water quality, brackish and wastewater, agricultural water management, and water resources management. I have worked all over the African continent, as well as in some parts of Western Asia.

I was born and raised in Tunisia.

Tunisia is a beautiful country at the tip of Africa, boasting 1300 kilometers of beaches and coastline, which is one of our main touristic attractions.

Tourism itself constitutes about 7% of our economy.

Tunisia is known for its attractive Mediterranean landscape at the foot of the Sahara Desert.

Our climate has allowed us to develop a productive agriculture sector, representing around 12% of our country's economic bread and butter.

Tunisia is a very good case study for climate change. So before I discuss the global situation, let me walk you through our new reality to help you understand what climate change can mean for a country.

In recent years, we have started experiencing alarming changes that have come about because of global warming and that are greatly affecting the future of our economy, our tourism and agriculture.

The sea level is rising. This has accelerated coastal erosion and we are seeing now that the coastline is receding up to 10 meters per year in certain areas. Many beach front hotels, houses and farms are at great risk.

The popular beaches of Hammamet and of Djerba Island are seriously jeopardized.

We are also experiencing severe floods in a number of regions, most recently in the north western region of the Kef, Jendouba, Bizerte and Béja Governorates, where several people lost their lives, where structural damage cost the Government millions of dollars.

In fact, extreme rains are expected to increase by 25% by 2030 according to a World Bank study conducted between 2009 and 2011.

Meanwhile, extended periods of droughts in the South as well as the desertification of croplands are on the rise.

The Sahara desert is slowly expanding its reach, rendering difficult any sort of agriculture in some parts of Southern Tunisia, where we used to grow olive and palm trees.

Tunisians in rural areas are being deprived of adequate water for domestic use, because our traditional sources of water are being depleted.

The net value of the total potential economic loss related to environmental risks are estimated at 1 billion dollars which represents 8% of Tunis economic production.

It is also estimated that 25% of those potential losses will be caused by climate change alone, mostly as a result of severe flooding.

1 billion dollars is an astounding number.

In Tunisia, we fully understand that climate change is here.

With the help of various partners, including the African Water Facility, the Tunisian government has started working on a long term strategy to increase our resilience to the adverse effects of climate change.

→The country has adopted a new regime to better manage water resources, agriculture and natural ecosystems in the wake of climate change;

→Actions have also been taken to improve data collection, monitoring systems, the transfer of technologies, and risk assessments;

→Investments are being injected into water infrastructure to adapt to our changing context, and for the construction of barriers and breakers to slow coastal erosion;

→Various programs are being designed to help save water, reuse water and to desalinate brackish and seawater.

Meanwhile, in terms of mitigation activities, Tunisia has begun the implementation of projects to reduce gas emissions under the Clean Development Mechanism.

Through a coordinated inter-sectoral approach, a number of projects have been set up in the energy, waste management, industry, and agriculture sectors.

Tunisia is also preparing prospective studies in order to preserve natural resources and economic activities, including those related to strategies adopted in the agricultural sector and ecosystems to cope with climate change.

The Government is also looking into developing a national strategy that takes into account the country's future water needs in light of all the future constraints likely to have adverse impact on the resource, such as climate change, population growth, industrial growth, just to name those.

And this is what we call adaptation.

As you know, our situation is not unique.

The changes we are experiencing are happening worldwide: record flooding is seen in England, the Balkans, Pakistan, Thailand; record droughts are experienced in the Horn of Africa and in California.

I am sure we have been watching the same news.

Should we panic? Not if we start preparing today.

Let us recap on **what we know**.

- A recent NASA-funded report confirmed that 97% of the world's climate scientists agree that we are seeing severe temperature anomalies around the world, that climate change is occurring, and that the primary driver is the greenhouse gases emitted by human activities.

- The same report concluded that industrial civilization is headed for irreversible collapse – and, well, that is pretty dramatic wouldn't you say.

But what if it were true?

On the other hand, a report recently released by the IPCC announced that carbon emissions have dramatically risen in the last decade and are now growing at almost double the previous rate.

Simply put: those reports confirm that our planet is rapidly warming.

But it also found that swift action can still limit global warming to 2 degrees Celsius, the internationally agreed safe limit, if low-carbon energy triples or quadruples by 2050!

For that to happen, we need an energy revolution that will put a definite end to our dependency on fossil fuels: we need more wind and solar energy, and biofuels.

And of course, we need to boost investments in hydropower – and we know our great potential in Africa – as at today, we only leverage 8% of our total hydropower potential!

What are we waiting for?

So either we curb our emissions - and all eyes are on China and the USA right now since they are some of the world's biggest polluters - or the planet will become an inhospitable furnace.

And to be quite sincere, I think we do understand that Africa will bear the brunt of it ---- first and worst.

This is especially true when it comes to the impacts on water resources.

What makes us so much more vulnerable than the rest of the world?

A few things: when it comes to climate change, our capacity to adapt is lower than other regions because of our limited financial and technical resources.

This is compounded by the fact that Africa is experiencing a population boom like nowhere else in the world. In most countries on the continent, the population growth is in excess of 2% every year and may reach 1.9 billion in 2050. The population of Africa is currently projected to quadruple in just 90 years!!!

So in short, climate change means more droughts, more floods, coastal erosion, erratic rainfall patterns, and growing concerns over water availability and quality.

Now, put that against increased water demand -- the expected consequence of population growth – and you have a dangerous scenario: more people means more water is needed for agriculture, domestic use, energy, industry, just to name those.

Africa is already facing enormous water challenges: access to potable water is at a low 60% and access to adequate sanitation services is at an even lower 30 %.

This leads me to think that there could be a day when people will be fighting for water...Not just in the Horn of Africa, but all over.

And the poorest of the poor won't make it, because they cannot compete economically. We don't want that.

Yet, this information is not new to any of us. We have known this for some time now. And we have also been saying that we would do something about it...for some time too.

Have we not?

So I think the biggest challenge for us is putting things in motion, putting our money where our mouths are in order to truly adapt to our changing environment, to survive and to thrive.

Every single one of us needs to become a climate champion - we need to become agents of change.

So how do we do that?

This is now where I will share with you the African Water Facility top 4 climate adaptive strategies which we have known to help deliver excellent results, and which can help your community build resilience to climate change.

These solutions are within your reach, and are meant to increase your water security. They will also boost your energy and food security and help protect your health and your ecosystems.

FIRSTLY: Exploring and tapping: know all your water resources, whether on the surface or underground, whether seasonal or available year round, whether yellow, grey or brown water; find out how much is suitable for agriculture, domestic and industrial use, how much is being used, and the percentage of untapped resources that you should consider using.

→In 2007, the African Water Facility offered a € 1.8 million grant to IGAD to map, assess and manage transboundary water resources as a way to provide hydrological data and information services, as well as to establish mechanisms of cooperation among the IGAD member countries.

SECONDLY: Collecting, storing and conserving: this seems obvious and simple, but every day great amounts of water are wasted. Rainwater for example

is a great gift from the sky, but unfortunately it is often unpredictable in timing and quantity. Are you ready when it comes? Rainfall collection and storage can be a life saver for households and farmers. Storing also means managing existing aquifers, ponds, tanks, and other resources such as soil moisture, and using them appropriately.

→In 2012, the African Water Facility offered a grant of close to € 700,000 to the Kenya Rainwater Association to mainstream rainwater harvesting management in response to rural development challenges posed by climate change, with much hope to see it influences government policy about the management of water resources in drylands.

THIRDLY: Reducing: we must try to reduce the amount of water we are using, pure and simple. Reducing water means being more economical, and using water more efficiently in the various sectors. It means for the agricultural sector producing more food per unit of water, would it be irrigated or rainfed agriculture.

→In April 2008, the African Water Facility gave close to a € 1 million grant to the Government of the Seychelles to formulate a water supply development plan for its three main islands. The project was designed to help improve the performance and service delivery of the water and sewerage division of the Public Utility Corporation (PUC) and – especially-- to improve the management of the demand in view of reducing water usage.

AND FOURTHLY AND FINALLY: The triple R approach: Recycling, Reusing and Recovering: This approach will be particularly important for the design of the cities of our future. So much water is wasted in urban areas. We need to embrace this new paradigm where water is used and reused endlessly. Our current use is inefficient and dangerously wasteful, especially under this new climate context where access to quality water is under threat. Human waste also needs to be looked at differently, as a potential source of energy and fertilizer.

→In May 2013, the NGO “Training Research and Networking for Development” based in Ghana received a € 1 million grant from the African Water Facility to finance the construction of a waste treatment plant that can produce about 500 tons of fertilizer per year, and can generate about 580,000 kWh per year from the biogas produced from human waste; we are hoping to

inspire others to adopt this new sanitation business model where everything is used and reused.

These solutions are -- of course -- part of a broader set of actions that you need to take to adapt to climate change.

There are at least 12 of them to consider before you go straight through the implementation of adaptive solutions.

Allow me to introduce you to **12 steps** that we, at the African Water Facility, recommend you to consider:

STEP 1: Assess and Learn: gather all the current information you can about your water resources, about climate change and population growth in your area, look for climate projection models, reach out to think tanks, acquire water knowledge;

STEP 2: Anticipate: with this knowledge, try to understand what this information means for the future, what are risks and vulnerabilities of your water resources, the implications and potential repercussions in your area; foresee;

STEP 3: Strategize: organize yourself, your community, around what you know and define your long term vision;

STEP 4: Plan: define what resources, what means are needed to implement your vision and create a step by step plan to get those resources and to achieve your objectives;

STEP 5: Innovate: so the big classic ideas out there are not relevant or applicable to your specific case, then think creatively, think outside the box;

STEP 6: Integrate: bring different sectors, multiple agencies and disciplines together. Don't leave clusters. Ensure the local and district authorities, as well as the formal and informal sectors are part of the process and the solution.

STEP 7: Invest: not much is done without money, so allocate budget where needed, deploy the money, invest in the water sector, fight for that budget,

and spend wisely for the long haul – remember that great ideas do not necessarily have to cost much;

STEP 8: Build: water infrastructure is in crisis on the continent, we must build the needed infrastructure to tap into water resources and bring them to the people;

STEP 9: Cooperate: building can be an act of collaboration, especially if you share vast untapped surface or underground transboundary water resources, share the cost, the know-how, the wisdom, share the benefits, partnerships will save you from the burden of isolation;

STEP 10: Manage: closely follow the implementation of your project, your initiative, steer things back in the right direction when you see things are not right, dare to make tough decisions, be present;

STEP 11: Inform: along the way you learn lessons, you make discoveries, share what you know with whom it matters, your experience can help others and spread transformation across your area, your country; your experience can be part of a positive chain reaction across the entire continent.

STEP 12: Include: Give voice to rural communities, marginalized groups and women.

With all that, the future is now in your hands. But you are not alone.

Development partners are standing by ready to assist.

And we – at the African Water Facility – also want to be by your side to help you reach your objectives.

The African Water Facility is your financial instrument, and your trusted water resources management advisor.

The African Water Facility works in three different ways:

- 1- We can help you enhance your **water governance** apparatus;
- 2- We can help you acquire **water knowledge and information**;

3- And we can assist you in the **preparation of bankable projects** to help you attract the investments you need to finance your projects.

Project preparation is what we are known for - that is the preparation of feasibility studies, environmental assessments, investments plans and so on.

We will provide financial and technical assistance to get your project ready to be presented to potential investors.

On average, our leverage ratio stands at 1 for 30, which means that for every euro invested by the Facility, we have been able to attract 30 more euros.

So far, we have contributed to attracting close to a billion euros in investment to develop the African water sector.

We are about to launch a call for proposals specifically intended to finance climate projects for the water sector.

If you want to know more, I invite you to leave us your business card and contact information to allow us to send you our newsletter, which we will be launching right after Water Week.

I hope the information communicated today will be of some use to you.

Thank you for your attention, and your excellent questions and comments. The African Water Facility looks forward to working with you, so please don't hesitate to contact us through our website **www.africanwaterfacility.org**