



JANUARY - APRIL 2020

HYDROGEN PARTNERSHIP WITH AFRICA PLANNED

-Mrs Anja Karliczek

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WASCAL

West African
Science Service Centre on
Climate Change
and Adapted Land Use

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VISION

WASCAL seeks to become one of Africa's leading institutions in the provision of climate and environmental services in and for West Africa

OUR MISSION

WASCAL seeks to provide information and knowledge at the local, national and regionallevels to its West African member countries to cope with the adverse impacts of climatechange. We do thisthrough Capacity Building support to young West African Scholars infields of natural and social sciences and by strengthening West African universities and climate service departments in WASCAL member countries. We combat climate changeand improve livelihoods.

EVENT HIGHLIGHTS

- Expert Panel meeting on WASCAL
 Research Action Plan (WRAP 2.0) proposal
 held in Accra, Ghana to select the final list
 of applicants.
- Call for application of students for the 2nd batch of MSc. programmes launched
- Acceptance as member of the climate Security Expert Network (CSEN)
- Liaison with partners to adjust workplans because of the COVID-19 outbreak challenge.
- New grant agreements signed:

With BMBF for the development of an Atlas of Hydrogen Potentials in West Africa with BMBF (1,499,000 Euros; 2020-2021)

With BMBF for the establishment of a coordination for Renewable energy programme in WASCAL (3,499,000 Euros- 2020-2023)

- A joint meeting with Jülich Centre held in Germany to finalize collaborations on Green Hydrogen.
- 10th Scientific Advisory Committee (SAC)
 Meeting held in Bonn

WASCAL Particpates in Dialogue on Climate Change in West Africa at COP25



The Executive Director of WASCAL, Dr. Moumini Savadogo has outlined the intensified measure WASCAL continues to put in place as part of its efforts to access the challenges climate change is posing for agriculture and in the process finding solution for adaptation in sub-Saharan Africa.

Dr. Savadogo also said
WASCAL was strengthening
scientific capacities in west
Africa by partnering with key
universities in West Africa to
provide students and future
scientists the necessary
academic and professional
knowhow to equip them
knowledgably enough to
access the situation and come
up with interrelated courses
to train scientists to access
the problems and provide
solutions.

He was speaking at a side event at the European Union Pavilion under the topic Challenges and solutions for agricultural adaptation planning in sub-Saharan Africa.

Read more



Production of Green Hydrogen in West Africa to Explore Renewable Energy Sources

The Federal Ministry of Education and Research (BMBF) has assured its continuous support towards the Renewable Energy Project on the Green Hydrogen in West Africa. This was contained in a speech delivered by Mrs. Annassi Kerstin, who represented BMBF at a two-day technical committee workshop on the Green Hydrogen Project underway at the WASCAL's headquarters in Accra.

The purpose of the workshop is for the H-Power-Africa to start with a study on the potentials of a sustainable production of green hydrogen in West Africa and to explore all renewable energy sources as drivers of such production as well as export potentials and the overall socio-economic impact of the project on the continent. The project will deliver an atlas that shows the green hydrogen potentials taking into account the different social, political, climate, infrastructure, policy and environmental issues that may be related to such. *Read more*

Strategic Fundraising Meeting between WASCAL and BMBF held

WASCAL and BMBF experts organized a two-day strategic and fundraising workshop at the WASCAL headquarters in Accra, to discuss WASCAL's institutional reforms and fundraising options aimed at WASCAL's sustainability in its mandate to combating climate change and improving livelihoods. *Read more*



BMBF Funded Project on 400 KW Hybrid Waste-to-Energy Power Plant Kicks off in Ghana

The kick-off and groundbreaking ceremonies for the Federal Ministry of Education and Research (BMBF) funded €5.8 million 400 kW Hybrid Waste to Energy (WTE) power plant construction to be situated in Atwima Nwabiagya in the Ashanti Region have taken place.

Additionally, the project is expected to help close the carbon cycle by developing the value chain of the process with the production and utilization of compost, which would be sold to farmers to boost agriculture and cut down on mineral fertilizer whilst improving the soil structure. The project is also expected to create opportunity for German small and medium scale enterprises to take advantage and extend their products and services in the area of waste to energy in Ghana. It would contribute to Ghana's climate change mitigation strategy as well as to the inclusion of renewable energy.



It will among other things provide the blueprint for the propagation of 10 additional waste to energy facilities in Ghana, contribute to Ghana's climate change mitigation strategy, contribute to the inclusion of renewable energy in Ghana electricity production mix and contribute to increasing access to electricity in Ghana.

Read more

The Best Federal University of Technology in Nigeria Confers Doctor Honoris Causa on Mr. Gabin Ananou



The Federal University of Technology, Akure in the Federal Republic of Nigeria, has awarded Mr. Gabin Kouévi Ananou, a Doctor Degree honoris causa in Sciences (Climate Change and Meteorology) for his meritorious achievements in the fight against Climate Change in Africa. The colourful event, held during the 31st convocation ceremony of the university, presented a citation to Dr. Ananou, to acknowledge his tremendous contribution in the fight against climate change through the training of African scientists in various climate change thematic areas as well as the provision of climate services.

"Dr. Ananou has been involved in the successful implementation of all decisions regarding funding from the donor, the Federal Ministry of Education and Research, Germany (BMBF), since 2009. He initiated the funding process and negotiated with the funding authority for the provision of resources in terms of infrastructure and programmes for WASCAL". Read more

Mrs. Anja Karliczek: Hydrogen Partnership with Africa Planned

The Federal Research Minister, Anja Karliczek and her Nigerien counterpart, Minister of Higher Education, Research and Innovation, Yahouza Sadissou (Chairman of the WASCAL Ministerial Council), agreed in Berlin to establish a hydrogen partnership and strategic measures to expand in West Africa. The Federal Minister of Research Anja Karliczek explains:

"Africa is a continent of opportunities.
Green hydrogen as the oil of tomorrow is
one of the greatest opportunities. I am therefore
very pleased that we have laid the foundation
stone for a hydrogen partnership today. It holds
great opportunities for everyone involved: for
West Africa, for Europe and for Germany as a
country of innovation. The start has been made:
We have launched a potential atlas on green
hydrogen in West Africa. Teams of experts have
started their work in the 15 ECOWAS countries.



We want to publish the potential atlas by the end of the year.

Cooperation with Africa on the mega-issue of green hydrogen will make Germany a focus of the European Union (EU) Council Presidency. We also contribute to the success of the European Green Deal. *Read more*

WASCAL congratulates all women in Climate Change

The Executive Director of WASCAL, Dr. Moumini Savadogo has congratulated all women who have in diverse ways contributed to the cause of promoting the fight against Climate Change in West Africa. As a leading international climate change organization, WASCAL is proud to support and work with women from different backgrounds in the provision of climate solutions to West Africa through capacity building and research.

Under the sponsorship of the Federal Government of Germany, through the Ministry of Education and Research (BMBF) WASCAL has since 2012 awarded scholarships to 68 West African women to pursue various climate change programmes in lead universities in the sub-Region at the Master's and Doctoral levels. These women have gone on to be contributing immensely in their various places of work, both at the governmental and private levels.

The current number of female students 32 out of the 132 newly enrolled students are females. *Read more*





Climate change war a necessity By Daily Guide

It is heartwarming to learn that the Government of Ghana has joined the climate change war now being waged by the developed world. Although the developed world accounts for the factors responsible for the warming of the world and should therefore do more to reverse the situation, we cannot be left out of what should be an international response to the looming Armageddon. Government's planned \$6.3 billion response to climate change whose fallout is a worldwide phenomenon is promising.

Carbon emission is a global phenomenon whose management requires the joint effort of every country. Unfortunately, in our part of the world, the subject remains a part of academic discourse. The ordinary man in the street or somewhere in the forest is yet to be brought on board the raging international discourse. Until such feat is achieved such persons would continue to set the bush on fire because of a few hares or even rats.

Read More

Covid-19, Climate Change Demonstrate Excellence of Africa's Scientists

By Laureen Fagan

When Nigeria discovered its first coronavirus patient - an Italian citizen who works in the country - public health officials weren't the

only ones who responded quickly. So did a group of scientists and researchers who got to work and sequenced the genome of the COVID-19 virus found in the patient.

Their work became the first African sequence for SARS-CoV-2 (the technical name for the virus) that was uploaded to a database in the United States. It's there that the NextStrain organization maintains a real-time map of the COVID-19 virus, as scientists around the world seek to understand where it travels and crosses borders, if and how clusters of the coronavirus outbreak are connected, and what the genetic markers tell them about how it's evolving. *Read More*

Erosion crisis swallows homes and livelihoods in Nigeria By Linus Unah

Patience Nwankwo sighs as she stares into the yawning hole in the ground near her home in southeastern Nigeria, the exposed red earth like an open wound slicing across the landscape.

"That big hole has swallowed farms, homes, and roads," Nwankwo said, her voice quavering as she tells how erosion is creating ravines that are eating away at her hometown, Nanka, and neighbouring Agulu and Oko.

"It might swallow everything here if it is not fixed," she said. Nwankwo, in her mid-70s, is a smallholder farmer whose home is now only 140 metres from the edge of the growing chasm.

The gully erosion in Nanka - one of the largest in Nigeria at 66 metres deep, 2,900 metres long and 349 metres wide, according to a recent study in the American Journal of Geographic Information System - is guzzling red earth from underneath people's homes and farms, and making residents fear their property will be next.

Read More

Leveraging on Covid-19 Response Funds to Support Livelihoods in Africa



By Prof Aly Mbaye, Director, WASCAL PhD Programme in Economics, Senegal

Since it first broke out in China in December 2019, The COVID-19 is spreading very rapidly throughout the globe, putting a lot of stress on national health systems which, even in developed countries, are struggling to muster the resources (masks, tests, respirators, qualified medical personnel, and others) needed to manage the number of patients needing care which is also growing at an exponential rate.

A very few countries in the world have so far managed to contain the spread of the disease. In Africa, besides the public health-related

challenges, the economic challenges the pandemic is posing to national governments, are even more perilous. Indeed, the stability of most African countries will greatly depend on how the economic and social ramifications of the crisis are being managed.

Health VS. Socio-economic Challenges Faced with the crisis, African countries are both exposed by the poor level of adequate capacities in intensive care units and the high prevalence of factors favoring the spread of the disease. Indeed, the results of medical research indicate that while the elderly are more likely to die from the disease, the youth, on the other hand, are more likely to contract it. Furthermore, these results also indicate that all forms of direct physical human contact (by touch, hugs, or other) or non-physical (a conversation not respecting a minimum distance of 2 meters or less) are likely to cause transmission of the disease. The number of these contacts depends very much on the social norms enforced in different countries and is also influenced by certain factors such as the average size of households. Read more

Land Use Land Cover Dynamics and Farmland Intensity Analysis at Ouahigouya Municipality of Burkina Faso, West Africa

Oble Neya1*, Tiga Neya2,3, Akwasi. A. Abunyewa4, Benewinde J.-B. Zoungrana1, Hypolite Tiendrebeogo5, Kangbeni Dimobe1, Joël Awouhidia Korahire6



Dr Oble. Neya Senior Scientist, WASCAL Competence Centre, Ouagadougou

ABSTRACT:

Sahel zone has been reported as one of the most vulnerable regions to climate change, so serious attention must be paid to this zone by researchers and development actors who are

interested in environmental-human dynamics and interactions. The aim of this study was to bring more insight into the impact of actions aiming at reducing land degradation, regreening the Sahel, stopping population migration and reducing the pressure on land in the Sahelian zone. The study focused on farmland dynamic in Ouahigouya municipality based on remote sensing data from 1986 to 2016 using intensity analysis.

The annual time interval change was 0.77% and 2.46% for 1986-2001 and 2001-2016, respectively. Farmlands gained from mixt vegetation, water bodies and from bar lands. Mixed vegetation and water bodies were both active during both intervals while the other land use such as woodland and bar land were dormant. Combining land use land cover analysis and intensity analysis was found to be effective for assessing the differentiated impact of the various land restoration actions. *Read more*

Carbon Sequestration Potential and Marketable Carbon Value of Smallholder Agroforestry Parklands Across Climatic Zones of Burkina Faso: Current Status and way Forward for Redd+ Implementation

Tiga Neya, Akwasi. A. Abunyewa, Oble Neya, Benewende J-B Zoungrana, Kangbeni Dimobe, Hypolite Tiendrebeogo & John Magistro



Tiga Neya. WASCAL Alumnus

ABSTRACT:

Agroforestry plays an important role in climate mitigation through atmospheric carbon removal by photosynthetic activity of tree. However, the carbon sequestration potential of smallholder's agroforestry's parklands is not well documented in Burkina Faso. Therefore. agroforestry parkland of smallholders' farmers in three climatic zones was studied. Thirty

household farmlands in each climatic zone representing about 35 ha were selected on which systematic woody species inventory and dendrometry data collections were undertaken. Nondestructive method using fitted allometrics equations was used to compute carbon stock. Sustainability analysis of carbon sequestration potential was done using]0-10],]10-40], and [40-110 cm] diameter class as long term, medium term, and short term, respectively. The balance between marketable carbon value and the trade-off from tree conservation of three major crops was also analyzed. The results revealed 24.71 ± 5.84 tCO2 ha-1, 28.35 ± 5.84 tCO2 ha-1, and 33.86 $\pm 5.84 tCO2 ha-1 in$ Ouahigouya, Sapouy, and Bouroum-Bouroum at p < 0.1 respectively. Long- and short-term carbon sequestration potential was attributed to Ouahigouya with 1.82 and 68.03%, respectively. With, the medium-term analysis Sapouy came first with 71.71% of total amount of carbon. The marketable carbon value was less than tradeoff value resulting in keeping trees and crop production. The balance analysis revealed that carbon payment system promoted by REDD+ initiative will be profitable and compensable to smallholder farmers effort to plant and keep tree when the tCO2 ha-1 price will be around US\$4.00.

Read more

CORONAVIRUS (COVID-19) PREVENTION



WASH HANDS



HAND SANITIZER



USE MASK



SOCIAL DISTANCING



DISINFECTION



AVOID HANDSHAKE



SELF QUARANTINE

Professor Daouda Kone is new Director of Capacity Building at WASCAL

WASCAL has appointed Professor Daouda Kone as the new Director of the Capacity Building Department, effective 6th January 2020. As the head of the Capacity Building Department, he will provide scientific and academic leadership and management of the different Capacity Building Programmes and, in collaboration with the Director of Research, develop work plans for the Capacity Building Department to fulfill the objectives of WASCAL. He will also be managing and coordinating the Capacity Building Programmes of WASCAL from the Headquarters by developing strategies to ensure effective achievement of the organization's vision and scientific objectives.

Professor Kone will also be planning and overseeing the capacity needs assessments of the Graduate Schools and give direction for improvement as well as building a strong



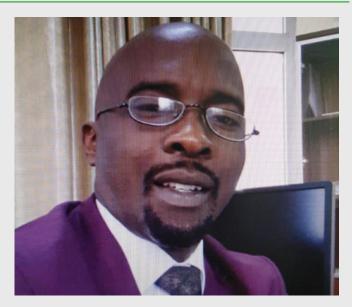
network among the lead universities in the region and with WASCAL partners in overseas.

Until his appointment, he served as the Director of Graduate Studies Programme (GSP) of WASCAL Climate Change and Biodiversity since October 2012. He has also been a Full Professor in Plant Physiology at the Department of Biological Sciences, University of Cocody-Abidjan. *Read more*

WASCAL appoints Professor Kehinde Ogunjobi as new Director of Research

WASCAL has appointed Professor Kehinde Olufunso Ogunjobi as the new Director of Research at the WASCAL Competence Centre based in Ouagadougou, effective 3rd February 2020. As the Research Director, Professor Kehinde Olufunso Ogunjobi will make the necessary linkages between the different poles of the WASCAL Research Programme and with external research partners, particularly the national, regional and international research institutions. He will design and implement a fundraising strategy for research activities and lead staff of the WASCAL Competence Centre in Ouagadougou, Burkina Faso to write and submit proposals to international partners for funding. He will also provide high level scientific advice to the Executive Director and to the Governing Board.

Professor Ogunjobi is expected to manage and coordinate the research group of



WASCAL from the Competence Centre in all respect and developing strategies to ensure effective achievement of WASCAL vision and scientific objectives; as well as collaborating with the regional and international scientific community for developing and maintaining effective partnerships and to ensuring that WASCAL's research is well positioned, demanddriven and responsive to current and future adaptation/mitigation challenges. *Read more*

DAILY GRAPHIC ONLINE

Apply technology to address development challenges

The Minister of Environment,
Science, Technology and
Innovation (MESTI), Professor
Kwabena Frimpong-Boateng, has
challenged science and technologyoriented universities and research
institutions to live up to their core
mandate of using technology and
introducing new methods to address
key developmental challenges
facing the country.

He said it was disappointing that even though Ghana, five decades ago, set out on the path of using technology to advance its development, it was still grappling with challenges in the energy, sanitation, agricultural and other sectors of the economy.

"We have had the Akosombo Dam for a very long time and one expected that by now we will be building our own dams, but that is not the case. We cannot be a sponge absorbing water all the time and not giving out anything," he said.

The minister was speaking at a stakeholder workshop in Accra yesterday regarding the construction of a 400-kilowatt (KW) hybrid power plant at Atwima Nwabiagya in the Ashanti Region, the sod for which would be cut at Nkawie today. *Read more*

GHANA NEWS AGENCY

Ghana and Germany set to construct 400KW Waste to Energy Plant in Ashanti Region

The kick-off and ground-breaking ceremony held on Tuesday in Accra, thus, paved the way to the beginning of the construction of the plant to be situated in Atwima Nwabiagya in the Ashanti Region of Ghana.

The pilot project is being embarked upon against the background of Ghana's quest to find long term solution to the menace of solid waste by treating and generating power from the treated waste.

Additionally, the project is expected to help close the carbon cycle by developing the value chain of the process with the production and utilization of compost, which would be sold to farmers to boost agriculture and cut down on mineral fertilizer whilst improving the soil structure.

Speaking at the ceremony in Accra, Professor Kwabena Frimpong-Boateng, Minister of Environment, Science, Technology and Innovation, said the Plant was expected to be built and operated within four years as a pilot, after which 10 or more are expected to be built within the next 10 to 20 years in different regions.

TV3 NEWS

BMBF Funded Project on 400 KW Hybrid Waste-to -Energy Power Plant Kicks off in Ghana.

YouTube link Watch more

MESTI WEBSITE

Ghana and Germany Set to Construct 400KW Waste to Energy Plant in Ashanti Region

Ghana and Germany have launched a 400 KW hybrid waste-to-energy (w2e) power plant to treat urban solid waste in the country.

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CITI BUSINESS NEWS

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The project is also expected to create opportunity for German small and medium scale enterprises to take advantage and extend their products and services in the area of waste to energy in Ghana. It would contribute to Ghana's climate change mitigation strategy as well as to the inclusion of renewable energy. *Read more*

• CALL FOR APPLICATION - "CLIMAPAFRICA"

The "Climate Research Alumni and Postdocs in Africa - (climapAfrica)" Programme aims to strengthen technical expertise in climate research in one of the most climate-affected regions of the world and to foster collaboration between scientists and practitioners. **Application Over**

- CALL FOR APPLICATIONS TO WASCAL CLIMATE MASTERS PROGRAMMES IN CABO VERDE AND BURKINA FASO, 2020-2021 ACADEMIC YEAR (click on the link to apply)
- @ News/blog: https://WASCAL.org/call-for-applications-to-WASCAL-climate-masters-programmes-in-cabo-verde-and-burkina-faso-2020-2021-academic-year/
- @GSP: (Burkina-Faso) https://WASCAL.org/graduate-programmes/master-research-programme-on-informatics-for-climate-change/
- @ GSP: (Cabo Verde) https://WASCAL.org/graduate-programmes/master-programme-climate-change-and-marine-sciences/



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