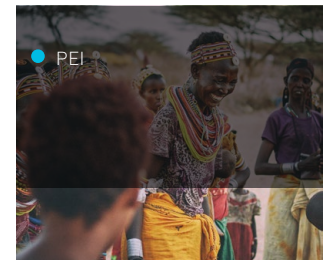
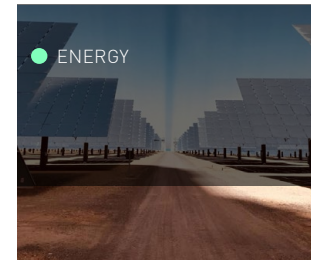




# UN ENVIRONMENT NEWSLETTER

AFRICA OFFICE

SEPT-OCT 2018





AFRICA OFFICE  
NEWSLETTER

## AIR POLLUTION



### TAKING CONTROL OF AIR POLLUTION



Air pollution is currently one of the biggest environmental risks, causing 7 million premature deaths per year. Air pollution levels remain dangerously high in many parts of the world. New data from the World Health Organization (WHO) released in May 2018 shows that 9 out of 10 people breathe air containing high levels of pollutants. Ambient air pollution alone caused some 4.2 million deaths in 2016, while household air pollution from cooking with pollution fuels and technologies caused an estimated 3.8 million deaths in the same period.

The transport sector is a major contributor to harmful climate emissions and particles from cars and other vehicles - including black carbon and nitrogen dioxide which contribute to a range of illnesses including respiratory conditions, strokes, heart attacks, dementia and diabetes. It is imperative that African countries completely phase out polluted fuels and switch to clean mobility, such as electric cars and better public transport.

The estimated economic cost of premature deaths in Africa from air pollution is approximately \$450 billion, and air pollution from energy production in the U.S. caused at least US\$ 131 billion in damage to its economy, including increased healthcare costs, in 2011. One Oxford

University study found that air pollution from cars and vans cost society 6 billion pounds per year. The European Environment Agency found that emissions from 14,000 industrial facilities in Europe cost society and the economy up to 189 billion euros in 2012.

Without action the cost will rise. A study by the Organization for Economic Co-operation and Development showed that the annual global welfare costs of premature deaths from outdoor air pollution are projected to be US\$18-25 trillion in 2060.

UN Environment has made air pollution a priority. The UN Environment Africa Office in collaboration with the World Health Organization and the Clean Air Coalition has set up a task force to provide the necessary support for these initiatives to be successfully implemented. This task force, among other things, urges governments and local authorities to join the Breathe Life Campaign.



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## WASTE



### WASTE: THE HIDDEN TREASURE



For Matilda Payne, founder of 'My Extreme Deco', waste is the new gold. Her small Ghana-based enterprise has found a way to valorize waste in an unexpected and creative way: by transforming it into jewelry, furniture and décor. Today, waste is the main asset in Matilda's business

SWITCH Africa Green, a joint European Union - UN Environment project, has been instrumental in helping Matilda establish her business and open new horizons for her to grow in the waste management industry.

"Before joining SWITCH Africa Green, My Extreme Deco was solely profit-oriented. My business is now impact-oriented and environmentally-friendly, as we reuse and recycle waste materials into valuable outputs," says Matilda. According to the UN Environment's Africa Waste Management Outlook, Africa only recycles four per cent of its generated waste. About 90 per cent is disposed of on land, often in uncontrolled dumpsites, while the rest is unaccounted for. The report urges African countries to find innovative solutions to address current waste management challenges and to prepare for the expected growth in waste generation on the continent.

Through the influence of SWITCH Africa Green, small and medium enterprises such as My Extreme Deco are better able to apply sustainable consumption and production patterns that help them acquire and transform waste.

The growth of green businesses in Africa helps create decent job opportunities and reduce poverty in a more sustainable way. My Extreme Deco is a model example of this type of green business. More than just recycling and turning waste into valuable items, they also benefit the lives of those around them.

However, establishing a business such as My Extreme Deco in Africa has not been easy. Small and medium enterprises within the continent face many challenges including limited access to financing, weak infrastructure, inadequate government regulations and difficulty in reaching markets within the region. "Transporting our products to other countries is one of our biggest challenges," says Payne. "You go through a lot of payments, taxes and scrutiny. Sometimes, it can be very frustrating. Our other challenge is that people don't understand the worth of what we are doing."

Enabling a conducive environment to foster growth of green businesses through innovative initiatives such as SWITCH Africa Green is necessary to support Africa in its transformation towards a greener and more inclusive economy.



## LIFTING PEOPLE OUT OF POVERTY BY INVESTING IN SUSTAINABLE BUSINESS



Promoting environmentally-friendly economic growth is one strategy for overcoming environmental challenges, and African entrepreneurs are increasingly looking towards sustainable industries to improve their livelihoods.

Shea butter, locally known as karité, is a key ingredient in many moisturizing creams. It is extracted from the nuts of the shea tree which grows indigenously in the Sahel and is a primary source of employment and income for millions of people, especially women. The United Nations Development Programme (UNDP) estimates that, on average, three million African women benefit directly or indirectly from shea butter production.

Felicite Yameogo, who lives in Burkina Faso, is the director of New Karikis International and one of the women entrepreneurs who have benefited from this business, which she says is crucial for empowering women in the region. "With this project, thousands of women are being lifted out of poverty," says Yameogo.

New Karikis International, one of the beneficiaries of the SWITCH Africa Green project, is a small company that deals with the production and export of shea nuts, organic shea butter and shea butter cosmetics. The company also offers training and advice to farmers and companies in the industry.

She spoke to UN Environment at the SWITCH Africa Green Regional Forum, held recently in Ouagadougou, Burkina Faso, about her experience

transitioning to a green business. "Access to finance and market is still challenging for our small businesses. It is much easier sometimes to export abroad than to our regional market," says Yameogo. "UN Environment and the European Union, through Switch Africa Green project, are helping us to network with banks, donors and other players who can support us to grow our business in a more sustainable way."

Through initiatives such as Switch Africa Green, African women have been able to organize themselves in cooperatives to harvest, produce and export shea products. After a successful startup, many female entrepreneurs are now looking to expand their business to other countries in the region and beyond.

SWITCH Africa Green Programme, a project funded by the European Union in partnership with UN Environment, supports African countries in their transition to a green economy, and promotes sustainable consumption and production practices. So far, the project has helped thousands of small and medium enterprises in Africa to start sustainable businesses and lift themselves and their communities out of poverty.



## TURNING E-WASTE INTO GOLD: THE UNTAPPED POTENTIAL OF AFRICAN LANDFILLS



Thanks to rapid changes in technology and falling prices, millions of tons of high-tech electronic devices are becoming obsolete in the developed nations every year, making e-waste one of the top environmental challenges of the 21st century.

Electronic waste (e-waste) is defined as what remains of mobile phones, computers, personal stereos, fluorescent and incandescent light bulbs, as well as large household appliances such as television sets, refrigerators, washing machines, air conditioners and more.

Speaking at the Earth Innovation Forum on September 5 in Tallinn, Estonia, Paolo Falcioni, Director General of Home Appliance Europe, said, "Five million tonnes of electronic equipment in Europe is generated as e-waste. Out of the five million, four million tonnes of the e-waste is recycled. Of this, 3.5 million tonnes become secondary raw materials. The rest of the e-waste is not traced."

It is probable that this untraced waste ends up in Africa. An article published by the Environmental Health Perspectives shows that each month 100,000 used personal computers arrive at the Nigerian port of Lagos alone. Ghana also faces challenges in managing the e-waste imported. E-waste generally ends up in landfills, the largest one being in Agbogbloshie, a commercial district near the centre of Accra.

Heavy metals and other hazardous substances found in electronics contaminate groundwater and pose other environmental and public health risks. Computers contain heavy metals such as lead, cadmium and mercury, brominated flame-retardants, Polyvinyl Chloride (PVC) and sometimes Polychlorinated Biphenyls (PCBs). Although some chemicals present in electronic components are hazardous, many have economic value.

Precious metals such as gold can be extracted from mobile phones, as each one contains an element of this precious metal. This potential is still untapped in most of African countries.

Beside metals, mobile phones also contain valuable materials such as plastics, glass and ceramics. With a growing focus on a circular economy approach, these materials could be turned into secondary raw materials that can be used as valuable inputs in different production processes. Such recycling opens a great opportunity for innovation, increased productivity and economic growth.



## AFRICA'S FUTURE LIES WITH THE YOUTH



The 2018 Africa Youth Conference was held on 23-25 October and hosted by several United Nations agencies including UN Environment, the UN Development Programme, UN Women, UN Population Fund, UN Educational, Scientific and Cultural Organization and UN Information Center. Youth from across Africa participated amongst them, 22 young people from Mauritania, Zambia, Cameroon, Togo, Sudan, Egypt, Seychelles, Burkina Faso and Kenya supported by UN Environment from

The youth-led conference focused on the following 4 areas: enhancing youth access to sustainable livelihood through social entrepreneurship; youth focused engagement and participation in governance, leadership and decision making; youth action in preventing violence and other harmful practices against young women and girls in Africa; and, showcasing and documenting youth-led innovative solutions addressing youth challenges in Africa.

In her contribution to the Conference, Damaris Mungai, the Gender and Youth portfolio lead at the UN Environment Africa Office, noted that “Younger generations find themselves in a difficult situation as they have different needs and priorities than their older peers. Increasing youth participation can bring fresh visions and ideas into actions for tackling socio-economic and environmental challenges that are a barrier to development in Africa.”

The conference provided an opportunity for insightful discussions with colleagues, policy makers and the business sector. The UN recognizes the potential that lies with the youth and is taking initiatives such as this conference to engage them in leadership and decision-making processes as well as involving them in socio-economic development.

Despite Africa having the largest population of young people in the world with 200 million of its people aged between 15 and 24, the continent is yet to tap into the full potential that exists within this group. According to the World Bank, youths account for 60% of all of Africa's jobless and in most African countries, youth unemployment occurs at a rate more than twice that for adults.

Youth can lead to a continental drive to break the patterns of the past and set Africa on course to a more sustainable future. It is necessary to encourage and support leadership and entrepreneurship by increasing investments in youth-led initiatives; improve access to education and skills; address the demographic issues, including early motherhood; tackle the problem of youth in violent and post conflict settings; and improve the labor market conditions. These are urgently needed policies to catalyze youth inclusion and engagement as well as for tackling youth employment issues in a sustainable manner in Africa.



## MORE THAN JUST CLEAN ENERGY: WIND AND SOLAR IN THE SAHARA COULD INCREASE RAINFALL IN THE SAHEL

New research indicates that large-scale wind and solar farms in the Sahara Desert could not only provide the world with all the energy it needs but also boost vegetation and improve livelihoods in adjacent drylands.

The idea of covering the entire Sahara Desert with a combination of solar and wind farms is not new, but it's attractive: theoretically, you could supply enough green energy to easily meet current global electricity demand.

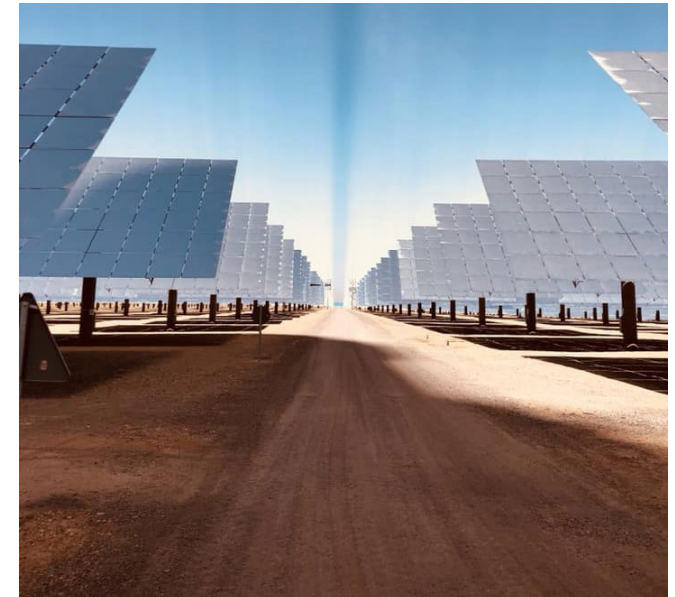
However, a new study indicates that such an installation could also increase rainfall and vegetation, creating a feedback loop which further greens the environment of both the Sahara and the adjacent Sahel, an impoverished dryland running from Senegal to Djibouti.

Modelling done by the study indicates that huge numbers of wind turbines and solar panels in the Sahara could lead to a local temperature increase and more than a twofold precipitation increase, especially in the Sahel, through increased surface friction and reduced albedo (the proportion of the incident light or radiation that is reflected by a surface): solar panels reflect less sunlight than Saharan sand, thus warming the land.

Increases in vegetation further reduce surface albedo. Additionally, vegetation increases evaporation, surface friction, cloud cover, and consequently, precipitation. In previous studies, vegetation feedback had been overlooked.

Wind farms at scale also create more rainfall. Their blades "cause significant regional warming on near-surface air temperature... with greater changes in minimum temperature than maximum temperature," says the study. "The greater night-time warming takes place because wind turbines can enhance the vertical mixing and bring down warmer air from above to the lower levels, especially during stable nights."

The region most likely to benefit from such an installation, says the study, is the Sahel. "The most substantial precipitation increase occurs in the Sahel, with a magnitude of change between +200 to +500 mm/year, which is large enough to have major ecological, environmental and societal impacts," says the study.





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## POVERTY ENVIRONMENT INITIATIVE (PEI)



### THE POVERTY-ENVIRONMENT INITIATIVE TRANSITIONS TO A NEW PROGRAMME IN AFRICA

After 13 years of implementation, the Poverty-Environment Initiative concluded its operations in Africa as of 30th of September 2018. The programme has been a 'one UN' pioneer programme and successfully contributed to put in place integrated approaches for poverty and environment planning, budgeting and investments across 10 countries in Africa as a model for implementation of the 2030 Agenda and the Sustainable Development Goals.

Poverty-environment related objectives have been included in around 20 national development plans, 90 sub-national plans, 100 sector plans and in 45 budget processes. Public investments in pro-poor environmental sustainability have thus increased in at least three countries – Rwanda, Malawi and Tanzania - helping to address poverty and unsustainable natural resource use on the ground. PEI Africa has moreover inspired investments of US\$ 183.9 million by development partners and actors to implement poverty-environment actions and research across its portfolio countries.

The investments have, for example, led to the establishment of 44 green villages across Rwanda. The sustainable natural resource management

solutions in the green villages are contributing to poverty reduction and includes terracing, tree planting, installation of biogas and rainwater harvesting. Access to biogas is reducing smoke related health problems and has improved women's access to water. Women and children have saved 5 hours/day previously spent on firewood and water collection and now have more time for productive activities.

The experiences and lessons learned from the initiative in Africa have been summarized in the publication 'Accelerating sustainable development in Africa – country lessons from applying integrated approaches'.

Looking forward, a new joint UNDP-UN Environment programme – Poverty-Environment Action (PEA) for Sustainable Development Goals - will be implemented in Africa for the period 2019-2022 building on the achievements of PEI. The new programme will focus on shifting public and private finance and investment towards environmental sustainability and climate objectives for poverty eradication in the context of national SDG implementation and acceleration efforts.



AIR POLLUTION

WASTE

SWITCH AFRICA

E-WASTE

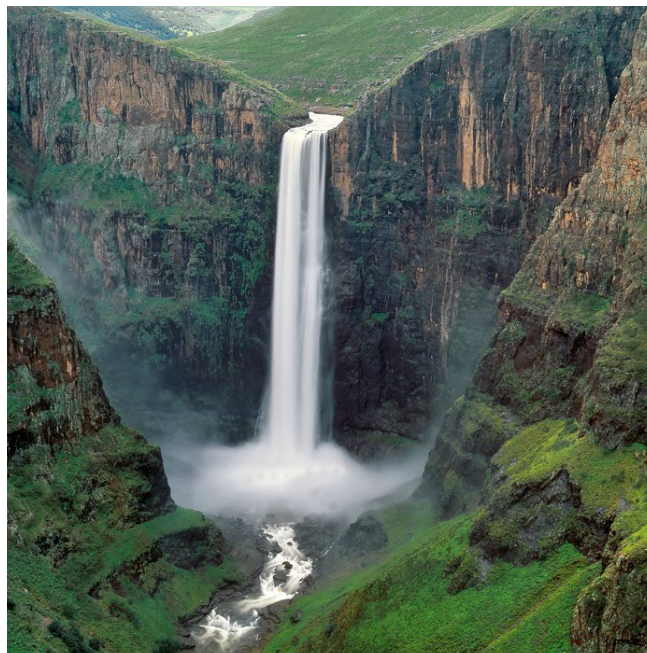
YOUTH

ENERGY

PEI



## FEEDBACK



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