

*The opportunities and challenges associated with*

# Integrating Biodiversity Conservation into the Renewable Energy Sector in Africa

**Chris Edeh**  
**AFSEA**



African Sustainable Energy Association (AFSEA) represents and actively promotes Renewable Energy Solutions in the Continent. Our focus is on the whole industry; Wind, Solar, Biomass, Biogas, Bio Fuels, Green Products, Energy Efficiency, Alternative Energy, Energy from Waste, Fuel Cell Technologies etc.

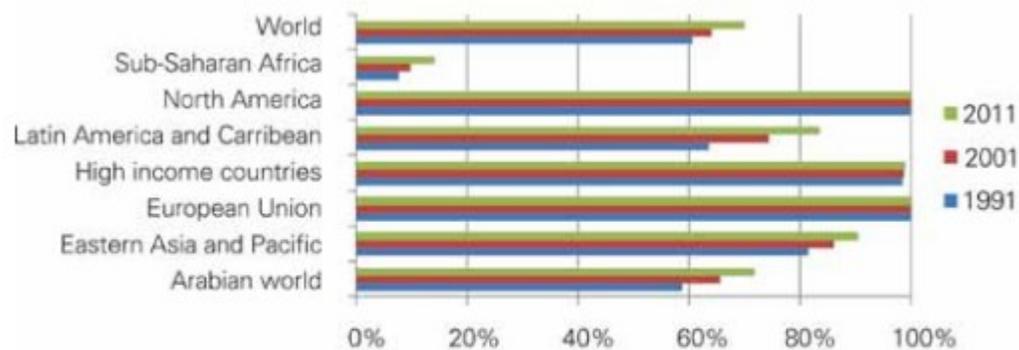
Our mission for AFSEA is to provide great insight into the African Sustainable Energy market by bringing companies from around the world together so they may prosper and gain the knowledge needed to expedite the implementation of renewable energy as a significant source of energy in Africa.

AFSEA advocates policy development at decision making levels. We also promote understanding of the industry and its potential through tools such as industry events, forums, conferences, newsletters and publications, our objective is to provide access to information that can affect today's clean energy industries as much as tomorrow's world.

We organize top management events and forums creating a networking platform for experts across the world. Our members include research institutes, developers, financiers, investors, contractors, consultants, suppliers and members of the public dedicated to building a greener planet.

For more information visit: [www.afsea.org](http://www.afsea.org)

## *Africa uses about one sixth of the energy used by Europe*



*Evolution of electrification rate through the world (World Bank, 2015).*

Africa has a landmass of just over 30.3 million km<sup>2</sup>, an area equivalent to the landmass of the United States of America (USA), Europe, Australia, Brazil and Japan combined. There are about 1.1 billion people in Africa (World Bank, 2015), in 54 countries that are varied and diverse in size, socio-cultural entities and resource endowments, including fossil and renewable energy resources. Most of these energy resources are yet to be exploited, which is a contributing factor in making the continent the lowest consumer of energy, as illustrated in Figure 1. Access to electricity, a generally accepted indicator of any country or region's socio-economic development, is low in Africa and particularly in sub-Saharan Africa.



Yellow-collared lovebirds stay local with one of the smallest ranges among East African birds.

*Photo Credit: Jetz lab/UCSD*

# Integrating Biodiversity Conservation into the Renewable – an overlooked cost of climate change mitigation?

Renewable **energy development** and **biodiversity conservation** are often considered beneficial environmental goals. The direct footprint and disturbance of renewable **energy**, however, can displace species' habitat and negatively impact populations and natural communities if sited without ecological consideration.

However, mitigation may also increase extinction risk through the unintended impacts of renewable energy developments, such as wind farms, solar or biofuel. Despite this, there has been no global assessment of the likely vulnerability of biodiversity to renewable energy at the scales at which they will need to be deployed for effective mitigation. Given rapidly rising renewable energy development, this is urgently needed to inform policies to minimise conflict between mitigation and biodiversity conservation



Roof top installation Nigeria

# Growth of Renewable Energy in Africa

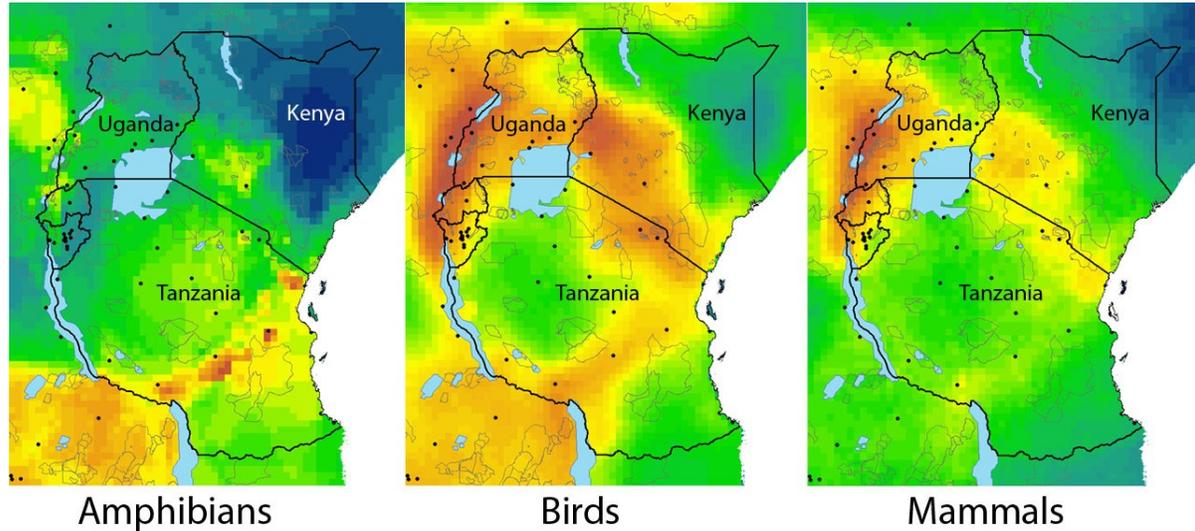
The rapid pace of deployment of renewable energy poses a major threat to biodiversity. Utility-scale renewable energy development (>1 MW capacity) is a key strategy to reduce greenhouse gas emissions, but development of those facilities also can have adverse effects on biodiversity

The juxtaposition of energy needs and biodiversity values has led to some difficult challenges for both the energy industry and the conservation community. For Renewable energy companies, the challenge is to find a way to meet the public demand for abundant, low-cost clean energy and, at the same time, meet society's expectations for corporate social and environmental responsibility, including biodiversity protection. Many leading companies are finding strategic, operational, reputational and financial benefits to including biodiversity conservation in their decision-making, policies and operations. For conservation organizations, the challenge is to be a strong voice for biodiversity conservation while working with industry to find the balance between the potential threats that renewable energy development presents and the opportunities for harnessing the influence, expertise and resources of energy companies for conservation efforts.

# Opportunities and challenges associated with integrating biodiversity conservation into the renewable energy sector in Africa



- Weak involvement of local communities in biodiversity conservation
- Weak law enforcement of laws and polices
- Difficulty linking climate change to biodiversity conservation
- Limited capacity & Inadequate funding
- Insufficient Awareness and capacity building
- Monitoring and evaluation



Africa's amphibians, birds and mammals. Photo Credit: Jetz lab/UCSD

# What can be done

Stakeholders need to be organised to play a more effective role in the industry and interact with government and role players at all levels.

- Identify and exploit potential resources and attractions within communities as incentives.
- Use opportunities for Biodiversity conservation training, awareness and finance incentives .
- Seek partnerships with established private sector .
- Support and promote responsible and sustainable Biodiversity conservation development.
- Oppose developments that are harmful to the Biodiversity conservation.
- Participate in decision-making of planned and proposed major RE projects.
- Make information on Biodiversity conservation resources and attitudes transparent and accessible to all levels of government.
- Sensitise the private sector, tourism parastatals, environmental agencies and NGOs to the importance of community involvement.

# How do we **move forward** as **renewable** energy grows in Africa?

How do we get RE companies to understand the policies on Biological Diversity, its implications for their industry & to contribute to its implementation



How do we make Biodiversity conservation an integral part of sustainable development.



How do we ensure integrated environmental & social impact assessment (ESIA) processes are carried out for any new project & that Potential impacts on biodiversity are fully assessed and analyzed



Ensuring that Companies seeking new RE opportunities to make positive contributions to conservation.



# Thank You!



**Chris Edeh**  
**Tel: +27 73 443 8850**  
[Chris@afsea.org](mailto:Chris@afsea.org)  
[www.afsea.org](http://www.afsea.org)



# Questions?

