

NIGERIA

1. CDM investment climate index: regional comparison

CDM investment climate index (CDM ICI), Africa - January 2011

Rank	Country	CDM ICI (max. 100 points)	Regional classification (school marking system)
1	South Africa	86.1	Good
2	Morocco	79.8	Good
3	Tunisia	77.2	Good
4	Egypt	74.6	Satisfactory
5	Nigeria	72.6	Satisfactory
6	Senegal	67.9	Satisfactory
7	Uganda	66.3	Satisfactory

*Source: DEG - Deutsche Investitions- und Entwicklungsgesellschaft mbH
(For calculation method, see www.kyoto-coaching.cologne.net)*

The CDM ICI assesses the investment climate for CDM projects. It can range between 100 points (highest) and 0 points (lowest). Nigeria is in fifth position in Africa with 72.6 points and a satisfactory rating. The first four ranking countries are ahead of Nigeria due to their superior general climate for private investments.

2. General climate for foreign investments

General economic statistics 2009	
Population:	152 million inhabitants
Nominal GDP:	US\$ 168.8 billion
Per capita GDP:	US\$ 1,112
GDP growth (real):	+7.0% (forecast 2010: +7.4%)
Consumer prices:	11.9%
Goods exports:	US\$ 78.2 billion
Goods imports:	US\$ 34.4 billion
Foreign direct investments:	US\$ 5.8 billion
Foreign debt (end of 2009):	3.0% of GDP
Currency reserves (end of 2009):	US\$ 44.8 million
Exchange rates (as at 28 Dec. 2010):	EUR 1 = NGN 199.03; US\$ 1 = NGN 151.52
Country credit rating acc. to Institutional Investor (September 2010)	38.6 of 100 points (Rank 91 of 178, +2.5 points on previous year)
Corruption Perceptions Index 2010 (Transparency International):	2.4 out of 10 points (Rank 134 of 178; 10 = free of perceived corruption)

Locational advantages: Raw materials wealth (oil, minerals), high real economic growth, relatively advanced industrialisation

Locational disadvantages: Lack of infrastructure (power, transport), heavy dependence on the petroleum sector, instability due to ethnic and religious tensions, corruption, high crime rate, social tensions due to conflicts over distribution (oil delta), double-digit inflation

3 Specific climate for CDM projects

3.1 Ongoing CDM projects in the country

As at December 2010, five projects were registered at the CDM Executive board (EB; responsible UN body for the international approval of CDM projects), three of which in the recovery and conversion of associated gas from oil production. The fourth project stems from cooperation between the German organisation Lernen-Helfen-Leben (LHL), and the Nigerian Development Association for Renewable Energies (DARE), which have equipped households with efficient fuel wood stoves ('Düsseldorfer Sparofen'). Most recently in December, the EB approved a project for electricity generation from landfill gas in Lagos.

Despite the tiny share in the number of all registered CDM projects (2,644 in December 2010), Nigeria still accounts for more than 1% of the expected average annual Certified Emission Reductions (CERs) from these activities. The reason for this are the large-scale projects in the oil industry that save comparatively large amounts of greenhouse gases. Till now, however, no CERs have been issued for projects in Nigeria.

Projects in Nigeria registered by the CDM Executive Board (as at December 2010)

Category	Project description	Estimated annual emission reductions (1,000 t CO ₂ e)
Oil field flaring reduction	Pan Ocean Gas Utilisation Project	2,627
Oil field flaring reduction	Recovery of associated gas at Kwale oil-gas processing plant	1,497
Landfill gas	Municipal Solid Waste Composting Facility, Lagos, Earth Core Nigeria Ltd. (ENL)	282
Oil field flaring reduction	Recovery and marketing of gas at the Asuokpu/Umutu Marginal Field	257
Energy efficiency in households	Efficient Fuel Wood Stoves for Nigeria	31
Total	5	4,694

CO₂e = carbon dioxide equivalent

Sources: UNFCCC, UNEP Risø Centre

Another five projects are in the validation phase. The largest of these is another project in oil extraction in the federal state Cross River, which aims at avoiding annual emissions amounting to 2.2 million t CO₂e. The other measures comprise a hydropower station in Niger State, raising energy efficiency in cement production by Lafarge/WAPCO at several locations, a combined power and heat plant in Rivers and waste heat utilisation in the aluminium industry in Ogun.

There is potential for CDM projects in Nigeria in many areas. So far, these include in particular the utilisation of associated gas from oil production, which is usually flared. Other opportunities for CDM projects are in renewable energies (solar, geothermal, small hydropower stations, windpower and biomass), improving energy efficiency in industry and waste treatment and disposal.

The two cooperation partners LHL and DARE are planning additional projects, especially in the northern regions, like the one already implemented to equip households with efficient fuel wood stoves. This German-Nigerian CDM project is the only one in Nigeria so far to be certified under the CDM Gold Standard. These kinds of project could prove worthwhile particularly as Programmes of Activities (PoA), where several small measures whose individual implementation would be too costly under CDM are bundled into one project. At present, the environmental agency Atmosfair is cooperating with LHL and DARE in expanding the fuel wood stove project into a PoA. This project is supported by the PoA Support Centre of Kreditanstalt für Wiederaufbau (KfW).

Buyers of the carbon credits are foreign climate protection funds or also firms, such as the energy company Eni from Italy or the Norwegian consultant Carbon Limits. The CERs from the LHL project are purchased by Atmosfair.

3.2 Quality of Designated National Authority (DNA)

The Special Climate Change Unit (SCCU) functions as the DNA in the Environment Ministry. Chaired by Victor A. Fodeke, after consultation with the Technical Advisory Committee, it decides on the national approval of CDM projects, the so-called Letter of Approval (LoA). The exact membership of the advisory committee is not known, but it can be expected to include representatives of numerous ministries, authorities and also experts from industry.

For the DNA to approve a project, the implementer must first submit an application and a Project Idea Note (PIN). After an affirmative response to the PIN, to obtain a LoA a Project Design Document (PDD) already validated by a Designated Operational Entity (DOE) must be submitted together with the completed form and an Environmental Impact Assessment (EIA).

Besides proven and measurable greenhouse gas savings, the project must also satisfy the following conditions according to the DNA: investment in Nigeria; contribution to economic growth and increased income; enhance efficient energy development and utilisation; environmental and financial benefit (as in EIA); contribution to faster technology transfer; long-term beneficial influence on mitigating the impacts of climate change.

In its function as Nigeria's DNA, SCCU is still at an early stage. Considerable investments will likely be needed in the institution's personnel and financial capacity to implement an active, effective climate protection policy with an operational national CDM programme.

Among the barriers to climate protection measures in Nigeria, the DNA has identified the following factors: lack of a coherent and comprehensive climate protection policy as a basis; inadequate institutional framework and insufficient funding for the coordination and implementation of national programmes; generally weak national environmental awareness; omission by various institutions of climate protection aspects in national development planning; lack of capacities for research and data collection; shortage of experts for environmental issues. Since mid-2010, a nationwide government campaign has nevertheless been underway entitled National Carbon Credit Train to educate the population on the economic impacts of climate change and the principle of emission certificates.

The Lagos Carbon Credit Centre (LC3) will be set up as a one-stop shop for advice on, transactions with, applications for and the certification of emission rights as well as for trade with carbon credits. Another task of LC3 will be to conduct campaigns to raise public awareness and provide information on the issue and promote CDM projects. Further information is available from the DNA.

3.3 Local consultants, validators and verifiers

There are presently only a few local consultants with expertise in this sector. One of the leading local consultancy firms for developing CDM projects is Bar Associates Consulting (BAS). The company EcoXchange has proven to be particularly active. It cooperates with the Nigerian Environment Ministry, the DNA and UNDP. Foreign consultants engaged locally include, for example, the Norwegian Carbon Limits, which has specialised in CDM projects in the oil and gas sector. There are no local DOEs. International validators and certifiers are, however, engaged in the country, such as DNV, SGS, Aenor, TÜV Nord or also TÜV Rheinland.

3.4 Local legal requirements for CDM projects and taxation aspects

The country ratified the Kyoto Protocol in 2004. A legal framework for CDM projects has not, however, been established yet in Nigeria. All that exists are a number of draft laws, which have not yet been initiated or implemented. These include, for example, a bill for setting up the Interministerial Committee on Climate Change (ICCC) to function as a technical advisory committee and take unanimous decisions on project approval after prior consultations.

There is also a lack of fiscal incentives to support CDM initiatives. On the contrary, some implementing agencies complain of 'deterrent fiscal measures' in the form of high duties or other charges for environmental projects, as experienced by the German organisation LHL for example, when exporting efficient fuel wood stoves to Nigeria in the registered CDM project.

3.5 CDM partnership agreements

A CDM partnership agreement has been concluded between Nigeria and Italy, especially with a view to implementing CDM projects. A memorandum of understanding (MoU) between Nigeria and Norway on environmental protection in the oil industry was in place until February 2010 and is presently being evaluated in preparation for a sequel agreement.

A MoU on capacity building in the CDM sector has been concluded with UNDP. Nigeria is an active participant in the regional initiative African Ministerial Conference on Environment (AMCEN) aimed at enabling Africa to speak with one voice in international negotiations on climate protection.

Of importance for CDM implementation in Nigeria is also the German-Nigerian Energy Partnership Initiative in existence since 2007, which will be stepped up in future. At the last bilateral energy conference, the foremost concern was financing facilities for specific projects in the Nigerian energy sector, especially in power generation, power grids and gas extraction.

3.6 Opportunities for CDM projects in the energy sector

Nigeria's economy is heavily dependent on the oil industry, which also accounts for a large part of exports. The country also has large gas deposits. The extractive industry has hardly been developed so far in this sector, however.

Projects for the use of associated gas from oil production afford CDM potential. On the one hand, this can contribute to power supply and on the other the gas can be sold on the (international) market. In a study, the World Bank has identified the weak local gas market and the lack of local infrastructure as obstacles to the latter option. The government has, however, recognised the commercial scope of this gas and is looking to develop the sector. In future, this could make it difficult for CDM flare gas projects to provide proof of additionality, should the government decide to legally ban associated gas flaring and stipulate a different use. For some time, there have been repeated discussions on prohibiting flaring, also for environmental reasons, but the oil lobby has successfully opposed this so far.

The national oil company Nigerian National Petroleum Corp. (NNPC) has established an in-house CDM Working Group. It has formed a partnership with Shell, the country's leading oil multinational, or rather its local subsidiary, Shell Petroleum Development Co. (SPDC), with the aim of developing national CDM projects.

Of interest for CDM in renewable energies are particularly off-grid facilities for rural areas. Altogether, Nigeria has just about 6,000 MW of power generating capacity, of which only 3,000 MW were put to effective use in mid-2010. The reasons included the dry season (hydropower), gas pipeline vandalism and repair work as well as the generally obsolescent equipment and infrastructure. Oil plays hardly any role as a source of energy for power generation. According to the International Energy Agency (IEA), less than 50% of the country is electrified. Just about 70% of the population has access to power supply in urban areas, with only about a quarter in rural areas.

An initial windpower project (10 MW) in the federal state of Katsina has been approved by the government's Federal Executive Council. The Renewable Energy Masterplan of 2005 envisages expanding power generating capacity from windpower (20 MW), photovoltaics (75 MW), small hydropower (600 MW) and biomass (50 MW) by 2015.

The 2008 World Bank working paper 'Low-carbon Energy Projects for Development in Sub-Saharan Africa' identified in detail the scope for power generation or savings in diverse sectors that are often also suitable for CDM projects. The paper is available free of charge as a PDF file on the World Bank website (www.worldbank.org).

Energy and environmental data

	Nigeria	Africa	OECD
Primary energy supply (Mtoe 2008)	111.16		
of which from renewable energy sources ¹⁾	approx. 80%		
Electricity consumption (TWh 2008)	19.12		
of which from renewable energy sources ²⁾	approx. 27%		
CO ₂ emissions from fuel combustion (Mt, 2008)	52.32		
Electricity consumption/capita (kWh/capita, 2008)	126	571	8,486
CO ₂ /Primary energy supply (t of CO ₂ /toe, 2008)	0.47	1.36	2.33
CO ₂ per capita (t of CO ₂ per capita 2008)	0.35	0.90	10.61
CO ₂ /GDP (kg of CO ₂ /US\$, purchase power parity 2000; 2008)	0.31	0.36	0.38

1) About 99% is attributable to biomass use (particularly wood) by the population for heating and cooking; 2) Solely hydropower

Sources: IEA, Germany Trade & Invest

3.7 Finance facilities for CDM projects

CDM consultants complain that major industries, above all the financial sector, lack an understanding of the CDM system. This is why it is especially difficult to obtain funding for CDM projects on the local market. To remove this constraint, the experts see the need for specific educational and training campaigns in local financial institutions.

To make renewable energies and energy-efficiency projects attractive for local financiers, it is essential for policymakers to promote them by means of a suitable legal framework and tax incentives. Till now, the Nigerian Government has not, however, taken any measures in this direction. Without these, short-term, cash-oriented projects will continue to be given precedence in Nigeria. There are some sporadic funding programmes by regional financial institutions (for example the African Biofuels and Renewable Energy Fund – ABREF - of the EBID Bank in Lomé).

DEG has been engaged in Nigeria since 1964. During this time, it has provided long-term finance on commercial terms to 27 project enterprises in the private sector. DEG offers largely private companies long-term loans, guarantees, equity contributions and mezzanine finance as well as comprehensive structuring advice, also for CDM projects. Through its climate protection network, Kyoto Coaching Cologne (KCC), DEG can also assist its clients with specific know-how and liaise partners for the CDM registration procedure.

DEG is also engaged in Nigeria with Public-Private Partnerships (PPP Programme of the Federal Ministry for Economic Cooperation and Development) and can cofinance projects with a particular developmental impact with up to EUR 200,000. Up to the end of 2010, projects for sustainable economic development have been supported with total funding worth EUR 1 million.

4 Recap

The potential for CDM projects in Nigeria is considerable, but there are numerous constraints on their implementation. A general climate protection policy and a legal framework with incentives are lacking for CDM projects. Moreover, the general shortage of expertise hampers project development and finance in this sector. Added to this is the policy conflict between ecological interests on the one hand, as a country heavily impacted by climate change, and economic interests on the other, as the primary oil producer in Africa.

Further progress in the implementation of the Kyoto Protocol agreements will depend in part on improvements in institutional capacities, such as the financial and personnel resources of the DNA. Growing commitment by bilateral and multilateral donors will make a major contribution here.

5. Advice/Service

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