Progress and potential of CDM reform and post-Paris market mechanisms for Africa

Policy Briefing

Stephan Hoch / Sandra Greiner / Axel Michaelowa / Fabrice Le Saché / Adriaan Korthuis / El-Hadji Mbaye Diagne

perspectives climate change
CLIMATEFOCUS
ecosur afrique POWERING SUSTAINABLE DEVELOPMENT
Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

Key Messages

94%

African countries have established Designated National Authorities (DNA) to approve CDM projects

68%

African countries have at least one CDM activity registered evidencing that the procedural frameorks is operational

32%

Global market share of Africa for Programme of Activities (against 3% on single CDM projects)

41%

Global share of Standardized Baselines developed by African countries

Photography : Ignacio Fuertes

- African countries and LDCs are calling for CDM reforms, capacity development programmes, and public CER procurement programmes, in order to improve CDM rules and increase their relative share in the CDM

- Adjusting CDM rules to the circumstances of African countries by introducing CDM Programme of Activities has enabled greater access to the CDM for Africa

- Low CER prices have been caused by a demand drop from the global North and political uncertainty about the relevance of a reformed CDM in the new climate agreement prevent scaling up African CDM activities

- Higher CER prices and a combination of new financing sources can boost new investments in clean technology and thus harness the mitigation potential in Africa.

- Elements of the CDM can serve as key building blocks for market mechanisms in the new climate regime. Africa should contribute to shaping the rules of these mechanisms.

CDM at a crossroads

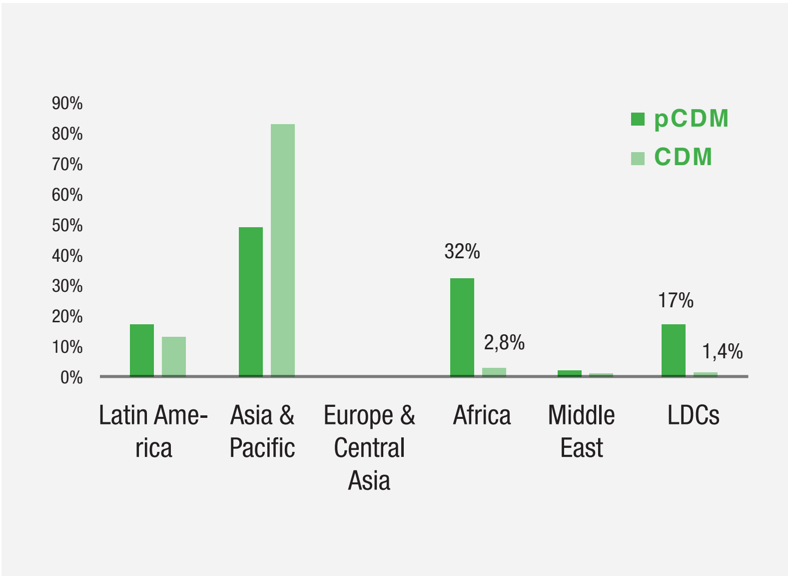
Market mechanisms in climate policy are currently facing a strong headwind. Many observers of the international climate negotiations think that the Clean Development Mechanism (CDM) has become obsolete. However, experience in Africa shows that the CDM is well alive and kicking, and that it should be retained in the post-Paris climate policy architecture.

The time period before the new climate agreement becomes effective in 2020 is critical for Africa. There is a window of opportunity when the operational rules of the policy instruments under the new climate agreement will be decided in the next years. Therefore, it is key to understand the lessons from the experience with the CDM, so that Africa is certain that the new rules are adequate for its circumstances from the beginning. In contrast to common belief, African entrepreneurs and stakeholders are eager to engage in a market mechanism if it is appropriately designed.

"Reforms of the CDM have enabled greater access by African countries, but political uncertainty prevents new climate-friendly investment"

Africa has initially had a very low share in the global CDM project portfolio. This situation has begun to improve through a combination of regulatory reforms, most notably by introducing Programmes of Activities (PoAs), but also by simplifying methodologies as well as by engaging in capacity building efforts. As figure 1 illustrates, African countries and LDCs participate strongly in PoAs and are leading with regards to standardized baselines (SB).
PoAs allow aggregating many small mitigation activities under one single "umbrella", thereby enabling even household and community-based activities to harness CDM revenues. Importantly, such types of activities are also associated with higher sustainable development contributions.

Figure 1
Distribution of CDM projects versus PoAs



Source : **UNEP DTU 2015**

This success risks to be undermined by the continued price depression for Certified Emission Reductions (CER) that trade at 5% of their pre-2011 value. A severe shortfall of demand by industrialized countries due to lacking mitigation ambition inhibits the full potential of CDM reforms to unfold. In addition, there is political uncertainty regarding the role of a reformed CDM and new cooperative mechanisms under the new climate agreement. This is important given the long-term nature of infrastructure investments in energy, waste management, transport and others.
Africa is strongly engaged in these negotiations, and it is important that its voice fully contributes to shaping further CDM reform as well as to the design of new mechanisms. There are clear signs that there is a willingness among UNFCCC parties to consider the lessons from the CDM in the design of the latter.

CDM potential in Africa

- CDM activity data shows (i) an increasing African participation in the CDM (ii) greater potential than most observers usually conclude
- African CDM projects typically have strong benefits to the local population and sustainable development in general

Compared to other regions, the African engagement in the CDM in the last three years have been impressive. In addition to the already strong share in PoAs and SBs mentioned above, the amount of CERs from single African projects is expected to grow by 60% until 2020. This is only based on existing projects and does not take into account the new projects entering the pipeline. As of today, 51 of 54 African countries have established a DNA and 30 African countries host at least one registered CDM project.

This trend is supported by strong African economic growth. In general, preventing carbon lock-in while rapidly building up infrastructure means that there shall be many CDM opportunities in the next years.

Technologically, projects related to biomass energy (utilization of agricultural residues, forest residues), hydropower and efficient cooking stoves stand out; they partially already hold a significant share in the African CDM/PoA pipeline (cf. Figure 2). Beyond these project types, projects with low mitigation costs, and thus limited need of project finance are promising, such as landfill gas abatement or urban waste composting.
Renewable energy (solar, hydro, wind, geothermal, biomass) is also a source of potential African CER supply as analysts expect the share of renewables in the Sub-Saharan African power capacity to double by 2040. While the use of modern fuels will increase, biomass will continue to play a dominant role in the overall energy fuel mix of most countries.

Photography : Yi Zhang

Beyond carbon, renewable energy projects also yield strong social benefits. For example, one CER coming from a cookstove project is associated with livelihood benefits (e.g. savings in time and money for users/local population) of 93 US$ and health benefits from reduced smoke of 55 US$. Wind power projects lead to investments into local employment (2 US$/CER). Such technologies are thus of direct benefit to the most disadvantaged socio-economic groups of African societies. Finally, renewable energies also help improve the balance of payments of African countries as they reduce costs for imported fossil fuels. They increase the competitiveness of industries as they replace expensive diesel generators and contribute to technology transfer from industrialized to less industrialized countries.

Despite the multiple co-benefits that renewable energy technologies entail, other project types can have additional benefits, too. Landfill gas projects help alleviate health issues related to hazardous contaminated effluents and air pollution. Afforestation/Reforestation projects have significant positive impact on preserving biodiversity and promoting local employment. Finally, energy efficiency projects, such as waste heat recovery in the African cement industry, may help increase competitiveness as energy costs in clinker production are reduced considerably.

Regardless of Africa's past CDM performance and potential, the continent will only be able to fully harness its CDM potential if the market provides the right price signal, i.e. is characterized by strong demand. This raises the question of current and future sources of demand for the increasing share of African CERs.

Relevance of the CDM in the new climate regime for Africa

"A market mechanism agreed in Paris and underpinned by sufficient demand is paramount to restoring confidence and growing fledgling initiatives"

The compliance-driven demand for credits from African CDM projects has come to almost a complete halt in spite of the preferential treatment given to LDCs under the third phase of the EU Emission Trading Scheme. However, some bilateral or multilateral procurement initiatives that focus on African countries provide a lifeline to CDM projects:

- The Norwegian Carbon Credit Program under which the Ministry of Finance can procure up to 60 million CERs generated until 2020, particularly from vulnerable projects.

- The Swedish Programme for International Climate Change Mitigation that manages 9 multilateral funds/facilities and approximatively 140 projects, of which 37% are located in sub-Saharan Africa.

- The Carbon Initiative for Development of the World Bank (Ci-Dev) that has a USD 100 million budget for technical assistance and procurement of CDM credits from energy access projects in low-income countries

- The Pilot Auction Facility (PAF), a competitive auctioning mechanism piloted by the World Bank that is targeting stranded CDM projects in the methane sector. Through its first round (July 2015), the scheme awarded a total of 8.7 million put options to 12 project developers at a strike price of USD 2.4/tCO2e. In subsequent phases the PAF could target other sectors and potentially have regional windows.

- The BMUB/KfW 'Foundation Future of the Carbon Market', supporting credit-based programmatic mitigation projects via start-up finance. The Foundation's first two projects (Zambia and Senegal) are focusing on efficient cookstove technologies and should distribute over 100,000 units through their initial phase

- The recently launched Go Climate Neutral Now initiative of the UNFCCC Secretariat that allows users to calculate their carbon footprint, advises on reduction strategies and offers to offset remaining emissions via purchasing CERs whereby users can choose which project to purchase them from.

- The UN Office for Project Services (UNOPS) that is seeking to procure 350,000 carbon credits from CDM projects to offset emissions of the UN system, favouring projects with additional co-benefits in terms of health, safety and welfare of people, especially women living near the projects.

- The European Parliament is expanding its existing carbon offsetting scheme with an additional EUR 250,000 budget for Gold Standard and UNFCCC credits. This initiative is relevant as it is targeting African countries and could pave the way for replication from other EU institutions.

Despite those efforts, the main concern from a project developer's perspective lies on the fact that current demand remains inconsistent, scattered and unable to provide reliable and sufficient incentives to scale-up investments. The calls for credit procurement are many times oversubscribed, providing limited certainty to project developers that their investment in project preparation and tender applications will pay off. As a consequence tendering entities willing to procure CERs from Africa also experience difficulties in receiving good quality proposals and receive either very early stage or opportunistic proposals of projects that are likely to go ahead anyway.

Nevertheless, innovative climate finance schemes like the ones above have an impact beyond the demand they create. By demonstrating how the CDM toolkit can be effectively harnessed to leverage private sector investments through public and new sources of finance they can pave the way for deeper pocketed climate financiers such as the Green Climate Fund, expected to channel the lion's share of the committed international climate finance to developing countries, or the African Development Bank. The African Climate Change Fund recently announced its intention to triple its climate finance budget, targeting adaptation and mitigation projects on a 50:50 basis, and aiming to reach USD 5 billion a year by 2020 (October 2015). While in and by themselves current climate finance initiatives are no replacement for market demand, they have a clear potential for growth particularly for the African continent. They could also work in a complementary fashion to market mechanisms.

For these initiatives to gain momentum and to contribute effectively to national development priorities, the Paris Conference plays a central role. It is indeed crucial that the Paris Agreement and its accompanying decisions provide incentives to African project developers and reduce long-term investment risks through the creation of a centrally governed mechanism that builds upon the CDM, serving to meet or enhance emission reduction goals, and catering to mobilising climate finance though public-private partnerships.

In addition to the climate finance based initiatives, new large-scale compliance demand is potentially on the horizon through the use of market mechanisms towards countries INDCs or the development of market-based mechanisms for the transportation sector. The latter, responsible for 15% of all GHG emissions worldwide, could shortly trigger new opportunities in the carbon offsetting market. The aviation and maritime transports sectors in particular: The International Civil Aviation Organisation (ICAO) is aiming to agree on a global market-based mechanism to control aviation emissions at its next assembly in September 2016, while the International Maritime Organisation (IMO) is expected to follow on aviation's footsteps with a dedicated offsetting scheme.

Recommended Action

For the UNFCCC negotiations

- Push multilateral rules for new cooperative mechanisms, based on the lessons of CDM
    - Promote a cooperative mechanisms “anchor” in the text of the Paris Agreement
    - Specifically refer to the CDM as a basis for the work on rules for cooperative mechanisms in the decision annexed to the Paris Agreement
- Expand successful reforms of the CDM while not jeopardizing environmental integrity:
    - Work towards full harnessing of potential of PoAs
    - Proceed with further methodology simplification

For the restoration of demand

- Provide a sufficient degree of investment certainty for carbon market project developers
    - Introduce long-term acquisition programmes with a clear indication of a minimum value of CERs
- Link emerging climate finance and carbon market demand sources to Africa’s CDM portfolio
    - decide that climate finance institutions explicitly combine financing for programmes and projects with revenues from market mechanisms
    - Actively mobilize new demand sources from aviation and through pre-2020 CER cancellation, e.g. under Workstream II of the ADP.
- Encourage payment of a premium for high SD contributions.

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Coordinators: Stephan Hoch - hoch@perspectives.cc,
Sandra Greiner:
s.greiner@climatefocus.com