

CARBON MECHANISMS REVIEW

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Assembling the Parts

Article 6 negotiations on the
home stretch?

Wanted:
Balanced Transition
The CDM and the Paris Agreement

Operationalizing Article 6

A Standardized Crediting Framework for the Post-2020 World

by Madeleine Diouf, Senegalese CDM DNA, Direction de l'Environnement et des Etablissements Classés (DEEC)

Ousmane Fall Sarr, President of the Senegalese National Climate Change Committee (COMNACC) and Director in Charge of Planning at the Senegalese Rural Electrification Agency (ASER)

Harikumar Gadde, Senior Carbon Finance Specialist, World Bank

The adoption of the Paris Agreement in December 2015 raised hopes for carbon market continuity beyond 2020. The key strategic question now, however, is how will the Clean Development Mechanism (CDM) programs continue to generate compliance credits and will they do so at all? If they do, what is the best way to transition to the Paris framework and adapt the new market mechanisms effectively?

The government of Senegal with support of the World Bank's Carbon Initiative for Development (Ci-Dev) seeks to answer these questions using its own, self-managed Standardized Crediting Framework (SCF)—a new approach to crediting emission reductions which goes beyond the CDM Programme of Activities (PoA) model, has lower transaction costs, and encourages private sector engagement. Compared to existing crediting under the CDM, the SCF allows for more comprehensive geographic coverage, flexibility, and simplified approaches to project cycle, baselines, and monitoring. By addressing the barriers faced by the CDM programs in these areas, the SCF could benefit energy access on a much larger scale.

Collaboration between the government of Senegal and Ci-Dev started in 2016 when Ci-Dev signed an emission reduction purchase agreement (ERPA) with Senegal's Rural Electrification Agency (ASER). Ci-Dev is a fund of the World Bank that mobilizes private finances for clean energy access in low-income countries.

ASER's rural electrification program uses a concession-based model where private companies compete for and win the right to sell, install, and maintain new electricity connections to rural households in one or more of 10 regional 'concessions' over a period of 25 years. To facilitate electricity access for poor rural households, ASER has decided to use the carbon revenues to overcome financial access barriers. For this purpose, the project uses an innovative voucher scheme: each voucher can be redeemed by the household to the private concessionaire in their territory for the service level and connection technology that best fits their needs. The concessionaire then installs the new connection and redeems the voucher with ASER for compensation. This subsidy is ultimately paid for by Ci-Dev for the generated emission reductions.

Ci-Dev uses the CDM as the methodological framework to quantify, verify, and certify the emission reductions. However, given that the CDM may not be relevant after 2020 as the Paris Agreement replaces the Kyoto framework, there is a need to explore other types of crediting mechanisms to channel climate finance to client countries. To address this and to support transition between Kyoto and Paris market environments, Ci-Dev has commissioned the development of an SCF for energy access programs.

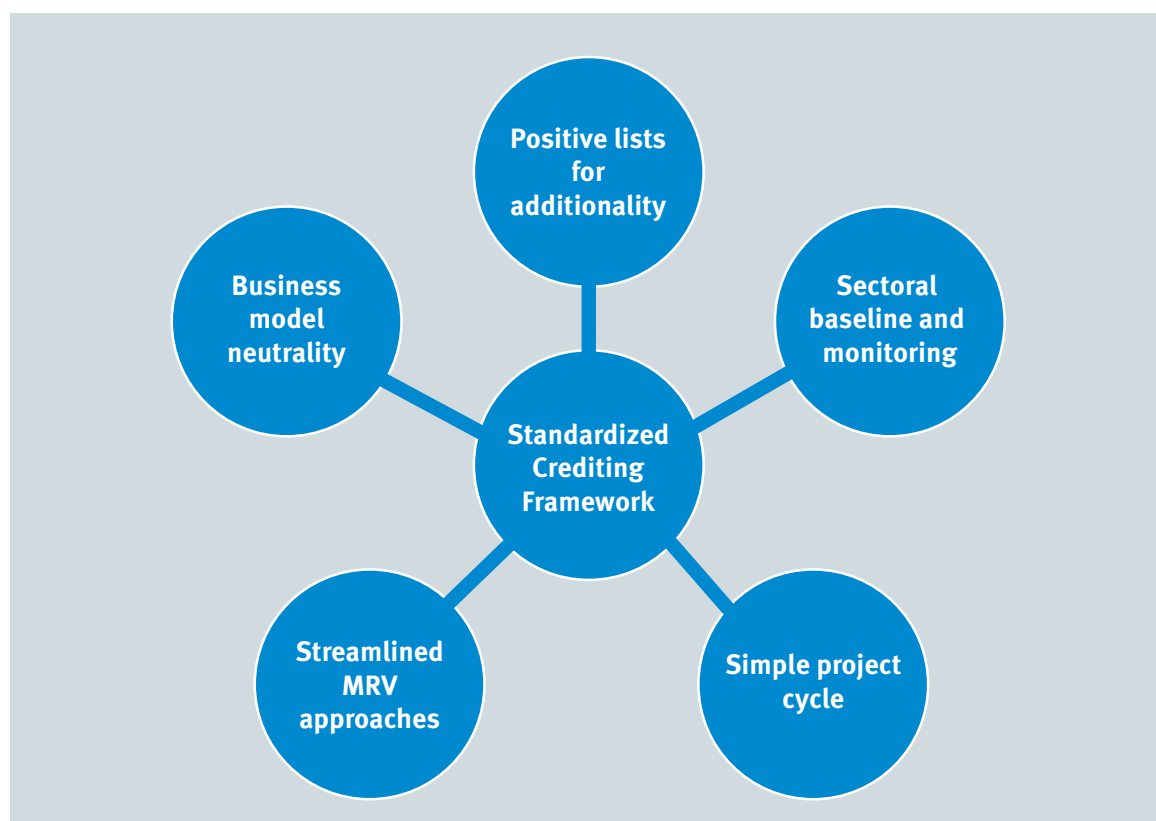


Figure 1: Key elements of the SCF

SCF in theory

The concept of an SCF is developed to address challenges faced by the CDM programs in the current crediting system, especially challenges faced by the energy access programs in Africa. These include:

- (a) Capacity of CMEs—through simplification of reporting requirements and standardizing most of the monitoring parameters at the national level
- (b) Interaction with domestic policies—by focusing on technologies with clear automatic additionality
- (c) Data needs and the related transaction costs for monitoring—reduced by using more standardized approaches, simplifications to the MRV system, and simplifying the project cycle.

The SCF approach would support greater private sector engagement by providing simplified, predictable approaches to crediting for energy access projects.

Standardized emission reductions

A central idea of the SCF is standardization of the emission reductions from each unit (i.e., solar lantern or solar home system) or household in an energy access program. This simplified approach to emission reductions would, in principle, be based on the number of households receiving access, average consumption of energy services, and the difference between the baseline and program emission factors, although the detailed calculations would vary by technology (Figure 2). Program proponents would only be required to measure the number of households receiving access under their interventions. For the other parameters, national or international default factors could be made available. This would

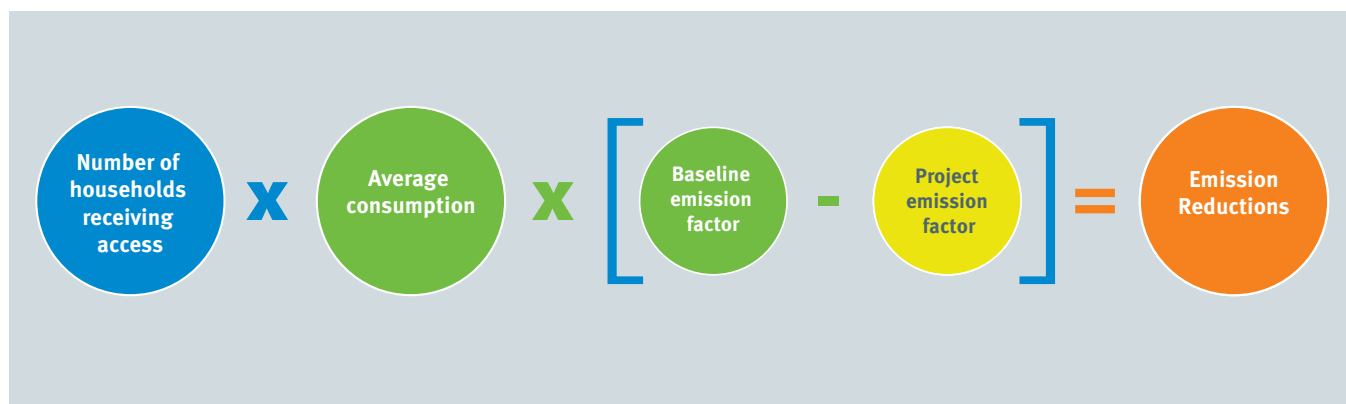


Figure 2: Standardized emission reductions for an SCF program

provide flexibility for private sector participants, while potentially significantly reducing transaction costs. If the parameters other than the number of households were based on these default factors, the total emission reductions could be calculated each year based solely on the number of households or devices within the program. This would echo the current approach for solar LED lamps under the CDM, where emission reductions are based only on the number of operational units in place and an international default emission reduction factor per unit.

Simplified project cycle

The SCF would build on earlier proposals for streamlining the project cycle by eliminating the validation step, and instead combining verification of the project design, its compliance, and performance into a single ex-post third party audit.¹ Initially, the programs would be “listed” based on information in a simplified ‘listing’ template that would clearly state the requirements for its eligibility. Once listed, the program would initiate a monitoring program to collect data annually to determine emission reductions, which would in turn be verified by a third-party auditor before credits were issued.

Under the SCF project cycle (Figure 3), with simple, clear, and transparent instructions, project proponents have little risk, in contrast to CDM, that an

activity would not be accepted under the SCF as long as it is implemented according to the SCF guidelines.

Positive lists for additionality

Almost all the technologies included in the energy access programs reviewed for the pilot fall under the “positive lists” in the current CDM rules. These technologies are considered automatically additional due to their unit size or their energy source. This implies that the total size of the activity is relevant for assessing additionality because the microscale guidelines are limited to project activities that reduce emissions by less than 20 ktCO₂ per year. However, this may not be the case for all technologies and sizes, and hence requires alternative approaches for assessing the additionality. Sector specific standardized baselines and the embedded additionality demonstration could create a foundation for more transformational procedural reforms while still maintaining the environmental integrity of SCF. These could include, for example, considerations of linkage to country NDCs, having a comparison between baseline emissions and the business-as-usual and policy impacts. Such additional requirements may increase the complexity (and subjectivity) of the SCF application in a country and sector. However, they may be necessary to ensure the environmental integrity of the program.

¹ https://www.ci-dev.org/sites/cidev/files/documents/CDM_Reform_2012.pdf

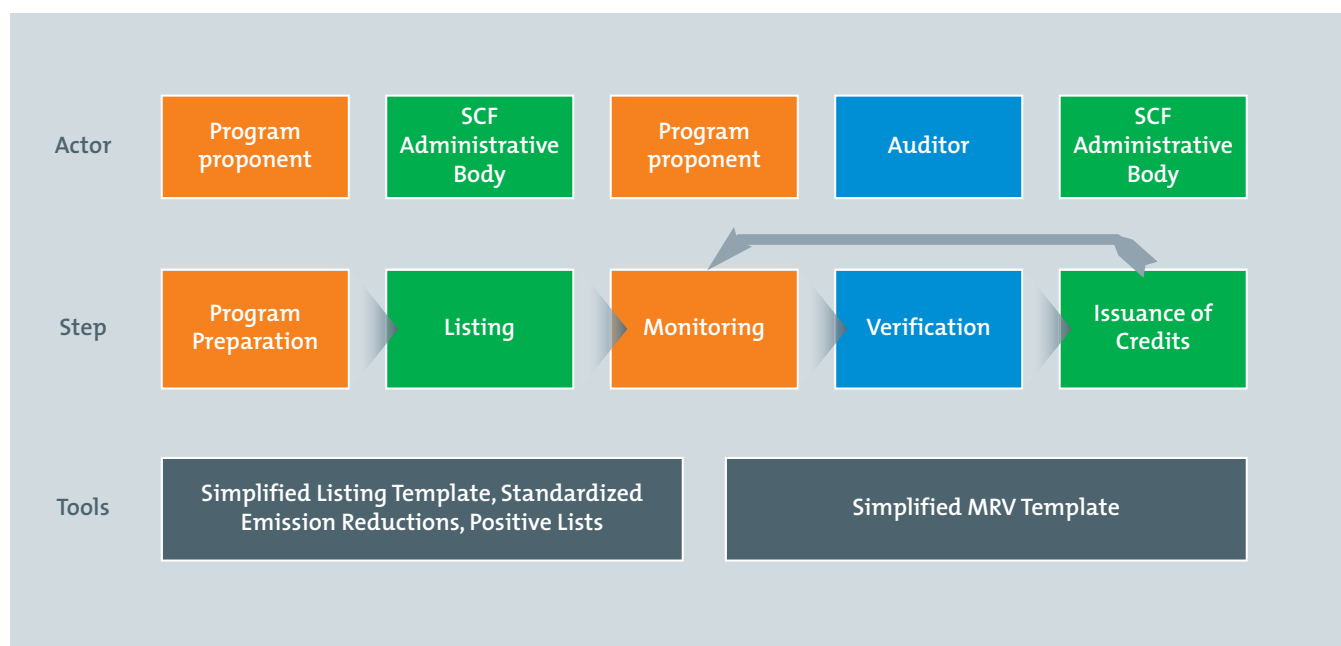


Figure 3: Project cycle—actors, steps, and tools under the SCF

Streamlined MRV approaches

The SCF would incorporate streamlined monitoring, reporting, and verification (MRV) approaches, such as a reduced need for site visits, use of local experts for auditing, faster timelines for checking documentation, tiered accuracy requirements, and calibration requirements appropriate to the country in question. Simplification of documentation would lend itself to greater digitization of forms, building on the current work in this direction under the CDM and other crediting systems.

Efficient governance arrangements

The SCF is implemented through governance and institutional arrangements independent from the UNFCCC process. This could be achieved through an institutional arrangement that builds on the existing structures and avoids, to the extent possible, the creation of new institutions. This approach would help reduce the administrative and financial burden on the national government, at the same time securing

transparency and predictability of the decision making. The identified institutions (Figure 4) are required to perform oversight, executive, and administrative functions for the proper implementation and operation of the SCF.

SCF in practice

The first SCF pilot was launched in Senegal in April 2017 as a part of the national electrification program led by ASER. Previously, to support rural electrification, ASER started exploring the CDM as an option and drafted a PoA-DD and submitted it with a proposed new small-scale CDM methodology for rural electricity (which eventually became AMS I.L and AMS III.BB). The program preparation phase lasted from September 2011 until September 2016 with significant time investment by many parties along with consulting costs.

Under the SCF, on the other hand, the program template² was standardized and simplified into a

² For all SCF templates and guidelines developed for the Senegal pilot, please refer to <http://comnacc.org/standardized-crediting-framework-for-energy-access-program-protocol-senegal-pilot/>

Table 1: Comparison of SCF process with CDM process

CDM	SCF	Benefits of SCF
Comprehensive project description, application of baseline, and monitoring methodology	Checklist approach	Reduced consulting input required
PDD prepared by external consultant with inputs from project participant and Ci-Dev	No narrative part; minimal drafting effort	Reduced time spent by project participant on drafting the PoA-DD
	Data collection much less time consuming, but this was partly because of data collected for CDM PoA	
Total duration	Total duration	Reduced process time
68.7 months	2.9 months	~ 66 months of overall duration

“Listing Document.” The listing document contains a checklist to be filled out by the project proponent with clearly defined eligibility criteria for technologies. Table 1 illustrates the differences in program preparation and duration.

Validation

The validation process under the CDM started in September 2016 and the DOE submitted a Request for Registration for the program in October 2017, marking the end of the validation phase. The SCF does not include the validation process as a separate step in its project cycle, therefore it does not require any resources.

Registration/Listing

The SCF uses a simplified listing process where the SCF administrator checks the completeness of the listing document, registers the activity in its database, and provides a notification to the project proponent. ASER submitted their program documentation on October 1, 2017, and received a letter confirming the listing on November 3, 2017. Table 2 shows



Source: The World Bank Group

Table 2: Registration/listing activities and duration

CDM	SCF	Benefits of SCF
Validation report submitted by DOE to CDM Executive Board with request for registration	Completeness check by the SCF administrator	Significant time and cost savings, as well as savings in process time
Completeness check by secretariat	Entry into the SCF database and notification to the project proponent	No direct costs involved in listing for the SCF (i.e., no registration fees), although this could change after the pilot
Approval by the Executive Board (EB)		
Total duration	Total duration	Reduced process time
7.1 months	1.1 months	~ 6 months



Source: The World Bank Group

the activities and duration of the registration/listing phase.

One important difference between the SCF and the CDM is the starting date for the crediting period. For the CDM, the crediting period for each CPA within a PoA occurs only after the PoA has been registered and the CPA has been included. The registration date for the CDM PoAs is the date when their complete request for registration was submitted. The SCF, on the other hand, allows the crediting period to start up to one year prior to the registration date, so the time required for program development and listing does not reduce the potential emission reductions attributed to the program. Combined with the elimination of the validation step, which can take one to two years for the CDM, an SCF program might have a crediting period starting two to three years earlier than under the CDM.

Monitoring

Now that the ASER CDM PoA is registered, CDM monitoring activities have just begun. Monitoring for the SCF pilot began in October 2017, even though historical data from October 2016 (i.e., the start of the pro-



Source: The World Bank Group

gram and crediting period) will also be collected. While under the SCF some data collection is similar to the CDM, cost savings are expected due to simplified monitoring requirements.

Nevertheless, both the SCF and the CDM will require the development and maintenance of a database of all consumers connected under the program. This information flow from rural electrification concessionaires to ASER is more robust in some concessions than in others, so more investment will be needed in monitoring systems.

Verification

For the verification process under the CDM, a new DOE verifies the monitoring report, conducts an

on-site assessment, and prepares the verification report. While the time required for verification under the CDM is quite project specific, the average time across all CDM projects from the end of the monitoring period to issuance of CERs is typically 6–8 months.

The verification phase for the SCF is likely to be less costly and less time consuming due to simplified monitoring. The clear verification guidance and template may also lower the fees charged by auditors. In the long run, further cost saving potential could be unlocked through the accreditation and training of local auditors.



Source: The World Bank Group

Certification and Issuance

The final step of the project cycle for both the CDM and the SCF is certification and issuance. Under the CDM, the DOE submits the verification report with a request for issuance to the CDM EB. The process includes a completeness check and assessment by the secretariat, approval by the Executive Board, and a potential review of the issuance if requested by a party or three members of the Board.

For the SCF, the administrator checks the completeness of the documentation and verification assessment from the verifier before the governing body certifies the emission reductions. The SCF pilot, however, does not issue tradable units at the piloting stage because it is still a simulation of a crediting standard.

Governance arrangements

The pilot is supervised by a governing board led by the Directorate of Environment and Classified Establishments (DEEC) of the Ministry of Environment and Sustainable Development (MEDD). It also includes the Directorate of Electricity (DE) of the Ministry of Petroleum and Energies (MPE), and the Directorate General for Finances (DGF) of the Ministry of Economy, Finance and Planning (MEFP). A Technical Committee drawing from the Thematic Group on Mitigation (GTA) of the National Climate Change Committee (COMNACC) supports the Board, as does the administrator in DEEC's Climate Change Division (Figure 4).

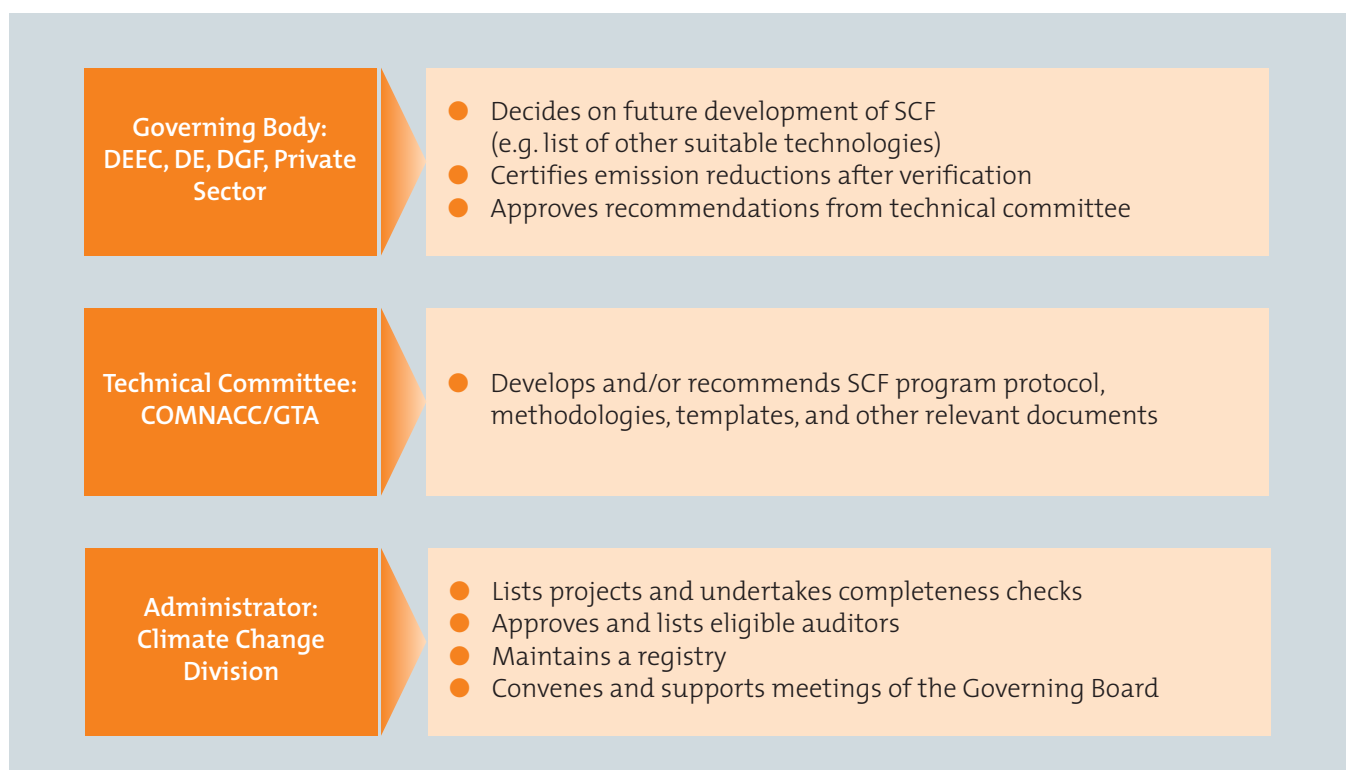


Figure 4: Roles of the key governance structures

Outlook

While the SCF builds on the CDM and many of its innovations, it is expected to become a framework under which activities could be developed under Article 6 of the Paris Agreement. With its country-owned and managed governance structure that facilitates alignment of different policies and institutions, the SCF can help build the relevant operational reforms into the new mechanisms.

Article 6.4 may be a natural place in which to embed the SCF in the architecture of the Paris Agreement. However, the SCF could also become a cooperative approach under Article 6.2. Integrating the SCF into the evolving regulatory framework is an issue to be addressed in the UNFCCC negotiation process.

By demonstrating real benefits and gaining support among stakeholders, arrangements under the SCF would most likely support the design of simplified and decentralized approaches under Article 6.



Source: The World Bank Group



As a next step in piloting the SCF, Senegal has commissioned an analytical study. This study will explore how the SCF can support implementation of the country's NDCs, how to determine baselines considering conditional and unconditional targets, and how to avoid double counting. The findings of the study will help update the framework and its requirements for operation in a post-2020 environment.

Conclusion

The Standardized Crediting Framework is important for several reasons, as it is one of the potential solutions that Ci-Dev is testing in the African context. First, the framework proposes a systematic approach to counting carbon credits. Second, making things simple and standardized will help improve transparency of the carbon market and reduce transaction costs. Finally, country-owned and managed frameworks like the SCF would help with capacity building in host country institutions, improve coordination

among domestic institutions, and help align climate change policy goals with sector policy goals.

The findings of the Senegal pilot will be particularly relevant for the post-2020 technical discussions on design of the elements for the new mechanisms; finding ways to avoid double counting; monitoring, reporting and verification (MRV); and governance arrangements to administer such design initiatives. The lessons learned from this pilot project will also help to better understand possible interactions between climate finance and the results-based financing model and their possible application in supporting the energy access agenda in low-income countries.

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A new Path to Policy Crediting?

New JIKO study explores potential for policy-based cooperation under Article 6. The paper is available at

www.carbon-mechanisms.de/en/policy_crediting

REDD+ and CORSIA

New research paper evaluates environmental risks if forest offset credits were to be used towards NDCs and CORSIA. Download at

www.carbon-mechanisms.de/en/redd

Glossary

All Carbon Market terms and abbreviations are explained in detail in the glossary on the JIKO website. You can view the glossary here:

www.carbon-mechanisms.de/en/service/glossary/