

**CDM-EB84-AA-03**

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# Use of the CDM infrastructure in other fields

Version 01.0



**United Nations**  
Framework Convention on  
Climate Change

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## **1. Procedural background**

1. At its eighty-first meeting (EB 81), the Board of the clean development mechanism (hereinafter referred to as the Board) requested the secretariat to prepare a concept note on how the infrastructure of the CDM may be applied to other fields, such as results-based finance, in conjunction with the full CDM project cycle and/or as separate services. The note is to include consideration of CDM mandates and how the CDM infrastructure may be applied in related areas”.<sup>1</sup>
2. The concept paper for the MAP project “Simplification of the project submission, registration and issuance processes and further opportunities for streamlining of the CDM”, considered at EB 82, stated that options for the use of the CDM infrastructure in other fields “... could be developed by analysing first how the existing CDM project cycle may already be used partially or entirely as a monitoring, reporting and verification (MRV) tool in result-based finance schemes, then how the simplified/streamlined CDM could facilitate such use.”<sup>2</sup>

## **2. Purpose**

3. The purpose of this concept note is to provide information on how the infrastructure of the CDM can be used for purposes other than the traditional generation of certified emission reductions (CERs) for compliance purposes under the Kyoto Protocol. The note focuses on the use, entirely or partially, of the existing CDM regulatory framework as it is currently implemented.
4. The CDM infrastructure is to some extent already being used by a range of governments, institutions and other entities in the manner outlined in this document. Some examples are given in this note. As these uses of the CDM infrastructure occur independently of the activities of the Board, this note does not contain specific recommendations concerning the infrastructure, although the Board may wish to explore ways to further facilitate and encourage such use.

## **3. Value of using the CDM infrastructure**

5. The CDM was established through the Kyoto Protocol with two objectives in mind: (a) that Annex I Parties would be able to use credits created to help them achieve their emission targets in a flexible manner and (b) activities undertaken through the CDM in non-Annex I Parties would contribute to their sustainable development.
6. In line with these objectives, the CDM has developed as an infrastructure for measuring, reporting and verifying (MRV) reductions and removals of greenhouse gases. This MRV infrastructure comprises a regulatory framework of standards and procedures and a set of systems through which they are implemented. The CDM infrastructure quantifies emission reductions and issues the appropriate number of CERs.

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<sup>1</sup> CMD-EB81 (EB 81 meeting report), paragraph 9.

<sup>2</sup> CDM-EB82-AA-A02 paragraph 9(f).

7. The infrastructure for the MRV of the impact of mitigation actions that has been built up for the CDM can in principle also be applied to any situation where there is a need to quantify and give assurance of the outcomes of specific mitigation activities.
8. The potential users of the CDM infrastructure, other than those motivated by the traditional use of CERs for compliance purposes under the Kyoto Protocol, include:
  - (a) Individual persons, companies and other entities wishing to voluntarily cancel CERs to demonstrate their contribution towards combatting climate change;
  - (b) Programmes established by institutions and governments. These users may wish to integrate the services provided by the CDM infrastructure into their climate finance programmes or national carbon pricing policies.
9. For the users of the CDM infrastructure, this provides a number of benefits:
  - (a) **Mitigation outcomes that are internationally credible:** The CDM is a credible, international MRV instrument with an established regulatory capacity, including baseline and other MRV standards, MRV procedures, institutions, an information platform and databases. These systems and processes provide rigour through both an *ex ante* assessment (prior to projects being implemented) and *ex post* assessment (for on-going operations of projects). This gives credibility not only to the estimated mitigation potential but also to the actual mitigation outcomes;
  - (b) **Comparability of results:** One tonne of CO<sub>2</sub> reduced should always be one tonne of CO<sub>2</sub> reduced, independent of the context of the reduction and the instrument used to incentivize it. Using the CDM infrastructure can ensure that one credible MRV instrument is consistently applied to evaluate the impact of the various mitigation instruments, allowing for compatibility and comparability in measuring the effectiveness of their implementation;
  - (c) **Broad scope and proven scalability of results:** The CDM has developed over 200 methodologies for the MRV of mitigation results across 15 sectoral scopes. Work is continually undertaken to streamline and simplify these methodologies, including through the development of standardized baselines. Developments in programmes of activities (PoAs), standardization and positive lists facilitate the implementation of mitigation activities on a large scale;
  - (d) **Prompt start:** Significant lead time is needed for the development of new MRV systems and for the institutional learning that is needed before any such new systems may be fully used. The CDM infrastructure offers a readily available system for delivering finance, technology and capacity in a robust manner, thereby giving users opportunity to shorten lead times and avoid the costly investments involved in developing and maintaining MRV systems of their own.

## 4. Components of the CDM infrastructure

10. A number of specific components of the infrastructure created for the CDM can be used to supply services in other fields:
  - (a) **Methodological standards:** These standards under the CDM are widely recognized for their rigour and environmental integrity. They cover a broad range of scopes and scales of activity, and embody a number of innovative solutions,

such as standardized baselines and positive lists, and measures to address suppressed demand, leakage and materiality. The CDM standards have been used for many years by other programmes, either directly or after modification;<sup>3</sup>

- (b) **Validation and registration:** Validation under the CDM produces a documented account of the technical and financial aspects of the investment, including the project design, baseline and boundary, and integrates processes for local/global stakeholder consultation, host Party approval and third-party inspection. Other programmes may readily use the validation results for their own screening purposes. They may also look for projects and programmes which have undergone CDM registration, as a way of gaining full assurance as to the project and programmes and quality of validation by the designated operational entity (DOE), or may not require projects and programmes to undergo CDM registration if they have no need for CERs to be issued;
- (c) **Voluntary sustainable development tool:** Users of the CDM infrastructure may use this tool to highlight the sustainable development benefits of their projects and programmes. The description of impacts on the environment, society and economy of host countries may serve to enhance the value of these projects and programmes. Programmes outside the CDM may wish to rely on information given via the tool to demonstrate the sustainable development benefits of the projects and programmes;
- (d) **Monitoring and reporting:** Monitoring reports furnish continuous and systematic information on the operational parameters and emission reductions achieved by projects and programmes. These are published on the UNFCCC CDM website. This part of the CDM cycle may resonate with donors using results-based financing;
- (e) **Verification:** CDM verification provides a third-party assurance that credible monitoring systems are in place and that the declared results are accurate and attributable to the project and programme. The record of emission reductions achieved is credible and may be used directly by projects and programmes to report under other financing programmes, and by the programmes themselves for their own accounting purposes;
- (f) **Issuance:** This last step of issuing the emission reductions as CERs may be useful to other programmes if a tradable unit or a practical reference to a well-known carbon “currency” is needed. The CERs may be used to demonstrate compliance with emission targets under national policy instruments or, if it is only information on the reductions achieved which is required, the CERs can be cancelled through the voluntary cancellation process under the CDM;
- (g) **Voluntary cancellation:** The procedure and systems established for the voluntary cancellation of CERs in the CDM registry enable users to remove CERs from holding accounts and render them permanently unusable for compliance purposes. The attestation of voluntary cancellation provides documented

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<sup>3</sup> For example, the Gold Standard accepts all methodologies approved under the CDM and has approved additional methodologies for other projects which draw reference from existing UNFCCC methodologies. The CDM methodologies are now being used as a basis for standards used by other systems, such as Japan’s Joint Crediting Mechanism (JCM) and the Climate Action Reserve (CAR).

evidence of the cancellation. The forthcoming on-line platform for cancelling CERs will significantly ease the implementation of this process;

- (h) **CDM Registry:** CERs may be formally held only in accounts in the CDM registry or national registries of Annex I Parties to the Kyoto Protocol. For uses of CERs not associated with a specific Annex I Party, the CDM registry can be used to track the issuance, holding and cancellation of CERs;
  - (i) **Accreditation:** The system for accrediting third-party validating/verifying entities under the CDM assures the competency of these entities to conduct validation and verification across a broad spectrum of scopes. Many DOEs are currently providing such services beyond the CDM to many voluntary systems.<sup>4</sup>
- 11. The above components of the CDM infrastructure may be used individually, in combination, or in full. The choice of which components to use lies with the user and will depend on how the services of the CDM can best meet their needs.
  - 12. The full use of the CDM infrastructure refers to the use of all mandatory components of the CDM, from the use of methodologies to the issuance of CERs.<sup>5</sup> These components make up a comprehensive and integrated package of MRV standards, processes and systems that has been carefully refined over the last decade. The projects and programmes would in fact be exactly the same as other projects and programmes, except that they are motivated by reasons other than compliance purposes under the Kyoto Protocol. This would involve the same regulatory “touch-points” with the secretariat and the Board as is defined in the CDM’s regulatory framework and known from other projects and programmes.
  - 13. Any issuance of CERs requires the full application of the CDM infrastructure, regardless what the CERs will be used for. This is clearly the case for any users of voluntary cancellation.
  - 14. The partial use of the CDM may be effective in situations in which users do not require the issuance of CERs, do not have need for the level of rigour applied in some part of the CDM cycle, or themselves provide elements of a policy or MRV infrastructure. In these situations, the users would need to take care that they integrate their use of the CDM infrastructure with the use of their own infrastructure in a way this is sufficiently comprehensive and coherent to meet their needs. The number and nature of regulatory touch-points with the secretariat and the Board would depend on which CDM components are used.
  - 15. In determining whether to use the infrastructure components of the CDM or their own, users are likely to take into account several considerations:
    - (a) Their own capacity to develop and maintain appropriate infrastructure;
    - (b) The level of variation from the CDM infrastructure they wish to have, and the extent to which they wish to control changes in the infrastructure;

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<sup>4</sup> For example, the Gold Standard, the Verified Carbon Standard (VCS) and the SocialCarbon Standard.

<sup>5</sup> Components which are optional within the CDM may or may not be used by other users in this context. These include the use of the sustainable development benefits tool or voluntary cancellation.

- (c) The value of harmonization in the MRV standards and processes at the global level, which has benefits for simplicity and transaction costs for participants;
  - (d) Their views as to the effectiveness and efficiency of the CDM.
16. Of these considerations, the Board is able to have the most significant impact on how the effectiveness and efficiency of the CDM is perceived by potential users of the CDM infrastructure. The CDM is currently generally perceived as being strong and credible, but also complicated and cumbersome by some. To address the latter, the Board has prioritized work in its CDM management plan for 2015 that focuses on the simplification and streamlining of the CDM.

## 5. Non-traditional uses of the CDM infrastructure

### 5.1. Climate finance and results-based finance

17. Climate finance refers to the financial resources mobilised to help developing countries mitigate and adapt to the impacts of climate change. The global climate finance architecture is complex and evolving. Funds flow through multilateral channels – both within and outside of UNFCCC financing mechanisms – and increasingly through bilateral channels between governments.<sup>6</sup>
18. Under results-based finance, climate finance is provided on the basis of achieved results that are monitored and verified (e.g. number of households connected to the electricity grid, tonnes of emissions reduced). It is often argued that results-based finance is a natural fit for the use of the CDM, given that CERs are issued *ex post* on the basis of demonstrated emission reductions. The use of the CDM infrastructure by result-based financing programmes can leverage the knowledge and resources of the CDM while providing readily available and credible MRV services to those programmes.
19. Several examples of using the CDM for results-based finance are already well-known:<sup>7</sup>
- (a) **Carbon Initiative for Development (Ci-Dev):** This World Bank programme supports CDM project activities with high development benefits by providing technical assistance and buying CERs. Its strong focus is on promoting energy access and low carbon development in Africa and Least Developed Countries. The fund size is USD 125 million and is supported by Sweden, the United Kingdom and the Climate Cent Foundation of Switzerland. There are currently 15 projects in the pipeline, each relying fully on methodologies and MRV of the CDM;
  - (b) **Pilot Auction Facility for Methane and Climate Change Mitigation (PAF):** This programme, also from the World Bank, uses competitive auctions to set a floor price for future carbon credits. The PAF is backed by Germany, Sweden,

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<sup>6</sup> By some estimates, the volume of investments that may offer climate change related benefits in both developed and developing countries may be in the region of USD 335 billion per year (Buchner et al., 2014), with the majority of the contribution being from the private sector. The Clean Technology Fund (CTF) and the Global Environment Facility (GEF), both administered by the World Bank, and the Global Energy Efficiency and Renewable Energy Fund (GEEREF) of the European Union are some examples of key sources of mitigation finance to date.

<sup>7</sup> The Green Climate Fund (GCF) may also employ results-based financing approaches.

Switzerland and the United States of America, and has a capitalization target of \$100 million. The PAF will disburse funds against independently verified emission reductions using CDM or voluntary standards (e.g. VCS and CAR). In the current first phase, the PAF is supporting projects that reduce methane emissions at landfill, animal waste and wastewater sites, but is considered to have a strong potential for replication and rapid scaling up in other sectors as well.

20. These two examples of results-based finance programmes incorporate the full CDM infrastructure, in that projects and programmes proceed through the full CDM project cycle and result in the issuance of CERs. Where financing is to be provided without CERs subsequently being used to offset another entity's emissions, it is possible to either voluntarily cancel the CERs or not submit the emission reductions for issuance.
21. Many of the countries supporting Ci-Dev and PAF see them as a proof of concept for recognizing the CDM as a mechanism to deliver climate finance. At the same time, these initiatives are striking several barriers, including difficulties in business communities and commercial banks understanding the CDM, and complexity and high transaction costs (especially with regard to additionality, methodologies and the project cycle).

## **5.2. Emerging compliance uses**

22. A number of emerging and existing carbon pricing policies at the national level are incorporating the CDM as a means of generating CERs that may be used for domestic compliance. There is significant potential for a greater application of this concept. There are currently around 40 national and 20 sub-national jurisdictions introducing policy instruments to put a price on carbon, and many more jurisdictions are considering it.<sup>8</sup>
23. A barrier to the use of the CDM for these systems is that developing countries are limited by existing rules with regard to how they may use the CDM registry.<sup>9</sup> Countries in this situation are considering work-around solutions, such as arranging for the voluntary cancellation of the CERs in the CDM registry and their "reissuance" as another form of certificate that the countries can manage within nationally established systems.

### **5.2.1. National emission trading systems**

24. Some developing countries are accepting CERs as compliance instruments in their emissions trading systems. This provides flexibility to covered entities to surrender CERs where the projects and programmes result in less costly emission abatement that they would be able to achieve themselves. For the regulators of trading systems, the use of the CDM infrastructure avoids the costly and time-consuming development and maintenance of a project offsets system, and links their national policy to the international market.
25. Countries can choose whether to allow CERs from CDM project activities and PoAs hosted in any country, or only from CDM project activities and PoAs on their territories (in which case, CERs would most likely only be allowed from projects in sectors outside

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<sup>8</sup> State and Trends of Carbon Pricing 2014 report, World Bank.

<sup>9</sup> These limitations relate primarily to the ability to move CERs between accounts, the level of control that can be exerted by Parties over CER holdings, and the allowable units and users within the registry.



the scope of the trading system). Both existing and new CDM project activities and PoAs could be allowed.

26. An example is the **Republic of Korea emissions trading system (K-ETS)**, which was launched in 2015 and covers 525 entities making up two thirds of national emissions. Twenty three sectors are included, including aviation with five domestic airlines. Korea aims to voluntarily reduce its emissions by 30% against business as usual by 2020.
27. During its first and second phases (2015-2017 and 2018-2020), the K-ETS will accept only domestic credits from projects using international standards and implemented by entities not covered by the trading system. Entities may use these credits for up to ten per cent of their compliance obligations. CERs from project activities in the Republic of Korea are therefore allowed, with the only condition being that the emission reductions were achieved after 14 April 2010. CERs are to be voluntarily cancelled in the CDM registry or the national registry of an Annex I Party, after which the equivalent number of Korean Carbon Units will be re-issued within systems managed by the government.
28. During phase III (2021–2025), up to 50 per cent of the total credits used as offsets under the K-ETS may be drawn from projects in other countries. This is expected to provide for non-Korean CERs to be used.<sup>10</sup>

#### 5.2.2. National carbon tax systems

29. Many countries, developed and developing alike, have established or are establishing carbon pricing instruments in the form of carbon taxes. Some developing countries are considering the integration of CERs and other credits into these instruments, such that the surrender of credits can reduce or take the place of monetary tax obligations. This can directly promote the development of emission reduction projects, thus contributing to the achievement of emission reduction pledges. The jurisdiction can also provide guidance on the types of projects, from which CERs may be used for tax purposes, to promote selected activities or technologies.
30. Jurisdictions can choose to use CERs from domestic CDM project activities and PoAs, or domestic and international projects. Both existing and new CDM project activities and PoAs could be allowed.
31. One example is the **South African carbon tax**, which the government wishes to introduce from 2016. It is expected to cover approximately 80 per cent of national emissions, with a tax rate of USD 12 per tonne of CO<sub>2</sub> equivalent in 2016, increasing by 10 per cent per year until 2019.<sup>11</sup> Regulated entities will be allowed to cover part of their tax payments with CERs from South African-hosted CDM project activities and PoAs. Currently, the proposal is that up to 5-10 per cent of the tax burden may be covered in this manner.
32. A **Mexican carbon tax** has been approved in which CERs and other credits may be surrendered in place of tax payments. However, as the modalities for such surrender as a regulation have not yet been approved, this provision is not yet operational.

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<sup>10</sup> Emissions Trading Worldwide Status Report, International Carbon Action Partnership (ICAP), 2015.

<sup>11</sup> State and Trends of Carbon Pricing 2015 report, World Bank.

### 5.3. Voluntary uses

33. CERs have made some inroads into the voluntary market for offset credits. While the majority of such credits are generated under other voluntary market standards, the Carbon Disclosure Project reports that 20 per cent of approximately 200 companies providing information to it in 2014 stated that CERs were among the credits they were using for these purposes.<sup>12</sup>
34. Corporations offset for different reasons. The most prominent are enhancing reputation and brand image, increasing employee engagement, obtaining market differentiation, philanthropy, promoting increases in efficiency, and supply chain management.<sup>13</sup> A number of organizations also see offsetting as an integral part of their overall climate change and sustainability strategy. Individuals most commonly offset travel emissions, although other reasons are also cited. As awareness of the climate change grows, the interest of individuals in offsetting their unavoidable emissions is expected to increase.
35. The Board is already nurturing demand for the CDM and CERs among voluntary users, including organizations and individuals. The online voluntary cancellation tool is expected to further facilitate the uptake of CERs for these purposes.
36. A barrier to the increased voluntary cancellation by individuals and corporations is the lack of differentiation of the credits in terms of characteristics that are relevant to the buyers. The main drivers for selecting offsets are relevance to the user's business and co-benefits, with 82 per cent of users stating they would like to see more quantification and valuation of co-benefits.<sup>14</sup> Survey participants indicated their willingness to pay up to 33 per cent more per tonne for projects with verified co-benefits. Other research found that preferred offsets possess "cascading benefits" (social and environmental) and "stakeholder appeal" (ease of communication, emotional appeal, etc).<sup>15</sup>
37. One example of the corporate use of CERs as part of an offsetting strategy is **DHL's GoGreen service**. This service offsets emissions from the delivery of packages by using credits "based on CDM principles", including CERs, Gold Standard CERs and Gold Standard voluntary emission reductions<sup>16</sup>. In practice, one third of DHL's selected projects are CDM through the Gold Standard. No projects are only registered with the CDM, due to the emphasis that DHL puts on projects benefiting the local communities.
38. The Conference of the Parties (COP), when meeting at its nineteenth session, invited Parties to consider the use of the CDM to close the pre-2020 ambition gap.<sup>17</sup> National and sub-national governments could consider using the CDM as part of their contribution to enhanced mitigation action. By voluntarily purchasing and cancelling CERs, existing and new CDM project activities and PoAs could operate and achieve emission reductions.

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<sup>12</sup> Information available on the CDP website: <<https://data.cdp.net>>.

<sup>13</sup> Unlocking the hidden value of carbon offsetting, ICROA, 2014.

<sup>14</sup> ICROA, 2014.

<sup>15</sup> Offsetting Emissions: A business brief on the voluntary carbon market, Ecosystem Marketplace, 2008.

<sup>16</sup> DHL GoGreen Services Customer Guide, DHL, 2012.

<sup>17</sup> Decision 1/CP.19 paragraph 5(c).

39. **Sweden's CER purchasing programme** helps the country achieve its emission reduction target of emissions in 2020 being 40 per cent below 1990 levels. A third of this reduction may be achieved through international offsets. Sweden has contracted 32 million tonnes of CO<sub>2</sub> equivalent so far and expects to achieve 40 million tonnes of CO<sub>2</sub> equivalent in total. The great majority of these credits are CERs.<sup>18</sup>
40. Only a few governments have responded to the COP invitation. A main barrier appears to be concern about double counting between increased uptake of the CDM and pledges made by Governments for the pre-2020 period.

## 6. Impacts

41. The continued and increased use of the CDM infrastructure beyond the purpose of contributing to compliance with Kyoto Protocol targets would provide an increase in the demand for the CDM and strengthen its ability to enhance mitigation activities.

## 7. Subsequent work and timelines

42. The information contained in this document, as well as any additional guidance provided in response by the Board, will be further considered in the context of work to simplify and streamline the CDM, for which a proposal will be considered at EB 86.

## 8. Recommendations to the Board

43. The Board may wish to take note of the information contained in this document and provide any feedback, including in relation to any measures that may:
- (a) Help overcome the barriers to the increased use of the CDM infrastructure discussed in this paper;
  - (b) Further facilitate and encourage the use of the CDM infrastructure in other fields.

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### Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	19 May 2015	Initial publication as an annex to the annotated agenda of EB84.
Decision Class: Operational		
Document Type: Information Note		
Business Function: Governance		
Keywords: CERs, compliance market, mitigation, national policy, offsetting, pricing, sustainable development, voluntary cancellation, voluntary market		

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<sup>18</sup> Swedish Energy Agency, side-event at UNFCCC sessions, June 2014.