The Adaptation Fund

AFB/B.4/7
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Adaptation Fund Board
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Bonn, December 15-17, 2008

Agenda Item 7

CER MONETIZATION PROGRAM GUIDELINES

(Prepared by Invited Trustee)

1. Under decision 1/CMP.3, the World Bank was invited to serve as trustee for the Adaptation Fund (AF) and to be accountable to the AF Board for the performance of its fiduciary responsibilities, in particular for the monetization of certified emission reductions (CER) in accordance with guidance provided by the AF Board;

2. The draft terms and conditions of services to be provided by the World Bank as trustee (the Trustee) for the AF (the Terms and Conditions), approved by the AF Board at its third meeting in September 2008 (Decision D/AFB/B.3/1; AFB/B.3/1/L.1, Annex III), provides that the Trustee, in its capacity as agent for the Conference of Parties serving as meeting of the Parties to the Kyoto Protocol (CMP), is authorized to administer sales of CERs under the instructions, direction and guidance of the AF Board, and only in accordance with the guidelines agreed in writing between the AF Board and the Trustee.

3. At its third meeting, the AF Board also requested the World Bank as invited trustee to prepare draft CER monetization program guidelines, consistent with paragraph 28 of decision 1/CMP.3, for consideration by the AF Board at its fourth meeting (Decision D/AFB/B.3/5).

4. The draft document entitled the CER Monetization Program Guidelines attached as Annex I is prepared by the World Bank as invited trustee for the AF, for consideration and approval by the AF Board, to set out the details of the manners in which monetization of CERs for the AF would be conducted, including in respect of sale and transfer of CERs from the AF account at the CDM registry and engagement with the settlement agent and other logistic arrangements necessary for monetization of CERs.

5. It is recommended that pursuant to the authority provided under decision 1/CMP.3 and the Terms and Conditions, the AF Board: (i) approve the CER Monetization Program Guidelines attached as Annex I (the Guidelines), and (ii) authorize the World Bank as Trustee to engage in monetization of CERs for the AF in the manners set out in the Guidelines; provided that such decisions by the AF Board and commencement of services by the Trustee will be subject to approval and acceptance of the Terms and Conditions by the fourth session of the CMP and the World Bank. The Trustee shall report to the AF Board on the status of monetization of CERs in accordance with the Terms and Conditions and the Guidelines.

Annex I

CER MONETIZATION PROGRAM GUIDELINES

I. SCOPE

1. These guidelines will apply to monetization of certified emission reductions (CERs) engaged by the International Bank for Reconstruction and Development (the World Bank) as trustee for the AF (the Trustee) for the Adaptation Fund (the AF)(the CER Monetization Program) pursuant to the terms and conditions (the Terms and Conditions) of services to be provided by the Trustee. The guidelines will come into effect upon effectiveness of the Terms and Conditions.

II. OBJECTIVES OF THE CER MONETIZATION PROGRAM

2. Through the CER Monetization Program, the Trustee will convert the AF's CERs into cash to fund adaptation projects. According to Decision 1/CMP.3, paragraph 28, the three objectives of the CER Monetization Program are to:

- Ensure predictable revenue flow for the AF;
- Optimize revenue for the AF while limiting financial risks; and
- Enhance transparency and monetize the share of the proceeds in the most cost-effective and inclusive manner, utilizing appropriate expertise.

3. The three Program objectives are discussed below.

A. Ensure Predictable Revenue Flow

4. Following approval of the legal arrangement (the Terms and Conditions) between the CMP and the Trustee by the fourth session of the CMP and the World Bank Executive Directors, the CER Monetization Program would begin as soon as practicable. CER Monetization should begin in advance of formal approvals of AF programs/projects by the AF Board. This will support the AF Board's decisions about calls for proposals and specific project/program commitments, and ensure cash will be available to fund the initial disbursements for AF programs/projects.

i) To ensure the predictability of funds, the AF Board decided to start the CER Monetization Program only after the settlement infrastructure for carbon markets is in place and CER markets are sufficiently developed.

ii) The CER Monetization Program will help to ensure that project and program commitments authorized by the AF Board are made on the basis of liquid assets, consistent with best financial management practice.

iii) The Trustee would provide the AF Board with information on funds in the AF Trust Fund available to be disbursed for program/project commitments. AF Board authorization of specific projects and programs would then be based on cash levels in the AF Trust Fund. This process will help insulate AF commitments from the uncertainties of the CER market.

B. Optimize Revenue and Limit Financial Risks

5. An essential objective of the CER Monetization Program is to obtain the market value for the AF's assets.

6. **Sales revenue optimization**: Ideally, the Trustee would carry out CER monetization through an ongoing program of spot sales in highly liquid markets. This would ensure fair and transparent pricing, reduce transaction costs associated with price discovery, and minimize costs and risks coming from insufficient liquidity or settlement processes. It is possible to trade spot on liquid exchanges, which represent the best approximation of an efficient market as long as the volume of sales is consistent with their capacity. At present, however, highly liquid and large spot markets have not yet developed. Therefore, the Trustee may have to supplement spot sales with the use of futures contracts and occasional OTC sales.

7. **Risk mitigation**: Carbon markets are still at an early stage in their development and pose risks regarding pricing, liquidity, clearing and settlement. The guidelines will address the management of these risks. Market risk arising from future movements of CER prices will be managed by spreading transactions over time to smooth price fluctuations. Settlement risk coming from the potential default by buyers of CERs will be mitigated by the use of delivery-versus-payment settlement mechanisms, either when trading on exchanges or OTC through dealers.

C. Enhance Transparency, Inclusiveness and Cost-Effectiveness

8. The CER Monetization Program should be designed so that the sales processes are transparent, inclusive, and cost-effective.

9. **Transparency and disclosure**: The CER Monetization Program guidelines will be made publicly available. The Trustee will record details of all transactions executed under the Program, either conducted on exchanges or OTC. While full transparency may be difficult to implement and potentially detrimental to best execution in some instances, given the public international nature of the AF and its role under the Kyoto Protocol, the highest level of transparency possible will apply to the implementation of the CER Monetization Program.

10. **Inclusiveness:** The guidelines should allow the broadest range of compliance buyers and participants in emissions trading to participate in the transactions executed under the CER Monetization Program, especially major CER buyers (governments and corporations with Kyoto or EU ETS commitments).

11. **Cost effectiveness:** The most cost-effective approach would ideally consist of trading spot on highly liquid and developed markets in which various transaction costs are minimized. Trading on exchanges represents the approach closest to trading on an efficient market. Nevertheless the Trustee will be responsible for minimizing implied costs (membership, margin calls for future trading, etc.). The direct cost of selling through dealers (payment of fees) will also have to be minimized and balanced against the benefits associated with the sponsorship of the dealer community (broad outreach to investors, market information, etc.).

D. Six Criteria to Implement the Program Objectives

12. These three objectives are divided into six criteria which have been presented and discussed with the AF Board, and which the CER Monetization Program guidelines aim to satisfy. The six criteria are to:

- Optimize revenues;
- Minimize risks;
- Enhance transparency;
- Be inclusive;
- Be cost effective; and
- Make funding rapidly available.

13. These overall objectives and six related criteria establish the framework for how the CER Monetization Program is structured.

III. RULES GUIDING THE EXECUTION: THREE-TIERED APPROACH

14. It may not be possible to achieve all these criteria at the same time, and in certain circumstances tradeoffs may have to be considered. To help address this, the CER Monetization Program guidelines, as discussed at the September AF Board meeting, are based on a three-tiered approach consisting of:

- Ongoing mechanistic sales conducted on liquid carbon exchanges;
- OTC sales through dealers in the case of high CER inventory; and
- Request for guidance from the AF Board under exceptional market circumstances.

15. The guidelines may be amended or supplemented with the written approval of the Trustee and the AF Board.

16. See *Table 1* at the end of this Section for an illustration of how the three-tiered approach meets each of the Program's objectives and corresponding criteria.

A. Start of Monetization

17. In decision AFB/B.3/1/L.1 at its third meeting, the AF Board decided that the monetization program should commence as early as practicable, in principle within the first quarter of 2009.

18. At its third meeting the AF Board also decided that the Trustee would start the CER Monetization Program once the settlement infrastructure for carbon markets is in place, with the connection made between the International Transaction Log (ITL) and the Community International Transaction Log (CITL), and subject to the legal arrangements between the CMP and the Trustee being adopted by the CMP (Report of the third meeting of the AF Board). See Annex 1 for background on ITL and CITL.

19. Prior to starting the CER Monetization Program, the Trustee will verify the effectiveness, reliability and performance (time for delivery, likelihood of fails etc.) of the ITL-CITL connection, which was announced on October 16, 2008 by the European Commission. Upon the Trustee being satisfied with the functioning of the CITL-ITL system, the transactions associated with the CER Monetization Program can start.

20. At its December 2008 meeting, the CMP will decide whether or not to approve the legal arrangements between the CMP and the Trustee. If the CMP approves the legal arrangements and they are accepted by the World Bank, and the Trustee is satisfied with the functioning of the ITL-CITL infrastructure, the Trustee will execute the first transactions under the CER Monetization Program which could start as early as January 2009. The Trustee will prepare a first public sale as a large-sized OTC inaugural transaction, as decided by the AF Board at its third Meeting (Decision D/AFB.B.3/5).

21. The Trustee will suspend spot sale transactions under the CER Monetization Program if the connection between the KM and EU ETS becomes impaired. If the CITL-ITL based settlement infrastructure remains disrupted over an extended period, the Trustee will seek guidance from the AF Board. The Trustee will then present specific short-term funding options based on then-existing market conditions and limitations.

B. Ongoing Mechanistic Sales Conducted on Liquid Carbon-Exchanges

22. The Trustee would follow a mechanistic approach for CER sales executed on exchanges and would not try to time the market or make forecasts as to the direction of CER prices. The approach described below will be driven by the volume of incoming CERs, exchange liquidity and desired inventory levels.

(i) Continuous execution of spot straight sales on liquid exchanges

a) The Trustee will primarily conduct straight spot sales (meaning sales executed spot, according to the way trades are normally executed on the exchange, as opposed to a specific form of auction or any form of customized and out-of-the-ordinary transaction), whenever possible on every trading day on the selected exchange(s). The size and the number of transactions executed on a given day will be determined by the Trustee so as to:

i) Maximize, to the extent possible, the volume of CER spot sales conducted on exchanges over the initial period of the CER Monetization Program (2009-2012).
ii) Accommodate the liquidity on the exchange and not move or disrupt the market price. To determine the size and number of transactions, the Trustee will rely on indicators made public by exchanges such as the total number of trades per day and the average size of a transaction.
iii) Spread the sales of CERs over time so as to average CER market prices. At the beginning of each quarter, the Trustee will determine the planned daily sales volume for such quarter based on the amount of CERs issued during the previous quarter and based on the volume of CERs expected to flow into the AF account over 2008-2012, with the goal being to spread transactions evenly throughout the upcoming quarter.

b) The Trustee will maintain a minimum inventory in the CER account corresponding to approximately two months of CER inflows. Two months of CERs represents a little more than 1m tons, based on an initial estimate of 32m tons CERs to be received by the AF until 2012, given that there are 4m tons at the end of 2008, and that CERs are issued on a regular basis (i.e. between 6 – 7m tons per year). The purpose of the inventory is to enable the Trustee to maintain a continual selling program in the event of a temporary slowdown or disruption of CER issuances.

c) The Trustee will keep records of all transactions executed on the selected exchange(s). In particular, the record of daily number, volume and selling price of transactions will be kept as well as the corresponding data applicable to the exchange.

d) The Trustee will monitor over time the effective presence and access to the selected exchange(s) of compliance buyers and investors, either directly or through brokers.

e) The Trustee will conduct trades on an anonymous basis.

f) The Trustee will mitigate settlement risk by using the delivery-versus-payment settlement facility provided by the exchange. The Trustee will interrupt trading whenever and as long as this facility is discontinued.

(ii) Limited use of futures contracts

a) Although the Trustee will sell CERs on selected exchanges primarily through spot contracts, the Trustee may use futures to a limited extent. Specifically, the Trustee will sell CERs on exchanges using futures contracts only to: access through the futures contracts a liquidity which is manifestly lacking on the spot contracts in the selected exchange(s); and maintain a presence in futures CER trading to diversify selling channels and maintain a continuous and seamless access to CER markets.

(iii) The Trustee will determine the maximum amount of sales through futures contracts based on their characteristics and associated costs and risks:

a) The Trustee will place a limit on selling CERs through futures contract derived from the costs and risks associated with "margin calls" or collateral requirements. Selling futures could entail the transferring of cash, known as "collateral", or "margin", to the exchange or the clearing house performing the settlement functions for the exchange. An initial margin deposit, which would be made in cash in the case of the AF, is required whenever a futures position is opened. With market movements, the margin is recalculated over time, resulting in margin adjustments or "margin calls" and the possible provision of additional collateral until the futures contract is closed. While all margin posted is returned at the expiration of the contract, a sharp increase in the price of CERs could entail suddenly raising large amounts of cash to post as collateral.

b) The Trustee will set the limit on future trades of CERs in the following way; determine the cumulative size of futures trades so as to cap to a reasonable amount the margin call, not to exceed €20 million, which would result from the strongest possible increase in the CER price. Cash used will be put aside in the Trust Fund cash account. The amount of CERs that should be delivered at expiration will be kept aside as well in the CDM registry account of the AF.

c) The Trustee will furthermore limit the trading on futures based on the AF's objective of rapid availability of funds. Currently CER futures contracts only have liquidity for December expiration. Therefore, cash proceeds from the sales will not become available until the end of a given year. The Trustee will continuously assess the availability and liquidity of futures contracts with intermediate expiry dates (March, June and September for instance). In determining the maximum amount of futures sales in a given year, the Trustee will incorporate the objective of keeping a cash inventory in the AF Trust Fund cash account commensurate with the expected disbursements of the AF throughout the year.

(iv) Selection of exchanges based on their strength, reputation and liquidity

a) As carbon markets have grown in volume, several exchanges have been established for emissions trading. As of end October 2008, the largest are the European Climate Exchange (ECX), the BlueNext environmental exchange, the New York Mercantile Exchange Green (NYMEX Green) and the Nordic Power Exchange (Nord Pool). The Trustee has performed an initial selection according to the following criteria: nature and number of contracts, liquidity (number, volume, frequency and size of transactions), market share, nature and quality of settlement and clearing services made available to participants (with an imperative requirement for delivery-versus-payment (DVP) settlement), number and nature of entities participating, and ownership status (the support of a well-established, large and reputable exchange or financial group being a plus). The Trustee has performed a study and found that ECX and BlueNext were ahead of the others at the time of the initial selection process (September-December 2008): ECX was the leading exchange but only offered futures contracts; BlueNext, sponsored by the NYSE-Euronext, was second to ECX overall, was offering a spot CER contract and had a leading position in the spot market.

b) The Trustee proposes to use BlueNext and ECX initially for the portion of the CER Monetization Program that is to be implemented in the form of mechanistic ongoing sales on liquid exchanges. The Trustee will initially use ECX for futures trades and BlueNext for spot trades. The Trustee will continue to monitor the evolution of the status and offering of the various exchanges in competition in carbon markets according to the criteria used for the initial selection, and will adapt accordingly its selection of exchanges in the future. A summary presentation of the selected exchanges is given in *Annex II*.

C. OTC Sales

23. The Trustee will conduct OTC sales in the manner described below.

24. **Criteria justifying an OTC transaction**: OTC transactions will be considered whenever one of the following situations occurs:

i) To address an over-accumulation in the AF CER account due to the slow pace of sales on exchanges as compared to the proceeds of the 2% tax on the new flow of CERs issued. As holding CERs has a cost in the terms of lost revenues from the investment income of cash proceeds, over-accumulation would occur when the volume CERs are significantly above the minimum inventory level and above the volume of sales that can be executed on exchanges over the coming two quarters.

ii) To sell CERs which are not eligible under the EU ETS (for example CERs generated by large hydro projects). Such CERs are either not of interest for Europe-based buyers (the main participants on the European carbon exchanges) or not accepted for trading in the European based exchanges. For such CERs, and until liquid exchanges for the trading of such CERs develop outside of Europe, the Trustee will execute OTC sales to reach out to the population of interested buyers, after careful separation of the AF CERs between the EU ETS eligible and the non-eligible

iii) To accelerate the availability of cash in response to the need for new project financing expressed by the AF.

iv) To accelerate the availability of cash for administrative costs associated with the management of the AF Trust Fund.

v) To attract the attention and communicate about the action and the operations of the AF towards carbon market participants, entities connected with the UNFCCC, the Kyoto Protocol and the Bali Roadmap, and the wider public.

25. **Execution of an OTC transaction**: The Trustee will determine the size and timing of the OTC trade based on ongoing consultation with dealer banks involved in carbon markets. The Trustee will select the dealers that will participate in the OTC sale based on an objective process, **using** the same general criteria that the Trustee uses when selecting dealers for its own capital market operations. In respect of a particular transaction, the Trustee will consult with dealers and seek their advice. The quality of the recommendations applicable to the specific transaction under consideration will be among the criteria the Trustee will use to select the dealers who will participate in the transaction.

26. When executing an OTC sale, the Trustee will verify the distribution of CERs to buyers achieved by the selected **carbon** dealer. The Trustee will ensure that the distribution meets the requirement of the CER Monetization Program for inclusiveness of all interested CER buyers. This includes making sure that as many as possible compliance buyers and governments will be made aware of, and given the opportunity to participate in, the OTC sale. While the sale price achieved in an OTC sale may not be directly comparable to prices then prevailing on exchanges, notably because of its larger size making it non-tradable on any existing exchange, the Trustee will monitor the pricing based on a number of public price references.

27. The Trustee will ensure that the settlement processes applicable to OTC transactions are DVP processes to limit **counterparty** credit risk for the AF.

D. Further Requests for AF Board Guidance

28. If extraordinary events occur that make compliance with the guidelines impracticable or impossible, the Trustee will report to the AF Board and request further guidance from the AF Board. An extraordinary event would include any event that results in extreme movements in prices and/or liquidity of CERs or in carbon markets generally. Such an event could be brought on by global macro-economic conditions, events specific to the CER markets, or a significant governance or economic policy change in the Kyoto Protocol, the UNFCCC or the global institutional framework for climate change.

29. In such event, the Trustee will provide the AF Board with relevant information about the event and its impact on the market and will propose alternative courses of action for consideration by the AF Board. Pending a decision by the AF Board, the Trustee may take such actions as it deems necessary or appropriate with respect to continuing or suspending the CER Monetization Program including taking actions that may conflict with the guidelines if the Trustee believes that compliance with the guidelines pending a decision by the AF Board could result in material detriment to the value of the AF's assets.

E. Settlement

30. **Settlement of a CER transaction:** The Trustee will settle trades relying on a bank to perform settlement functions (the "Settlement Agent") and the exchange's infrastructure as follows:

i) The Trustee will close a selling transaction with an eligible counterparty, either on an exchange or OTC. On the same day, the Trustee will notify its Settlement Agent, or ensure the Settlement Agent is notified. In the case of a spot transaction, on the settlement date, the Settlement Agent will then ensure that the CERs are delivered to the buyer while the payment in cash is received by the AF Trust Fund. The Settlement Agent will endeavor to use the DVP framework of an exchange. In case it is not possible, the Settlement Agent will seek to settle outside the exchange on a DVP basis. Based on instructions from the Settlement Agent, the CERs sold will be transferred from the AF account in the CDM registry to the Settlement Agent's account in the registry used for settlement (the AF subaccount with the Settlement Agent), and then to the clearing house. The buyer's cash payment will be transferred from the buyer's Settlement Agent account to the clearing house, and then to the AF Trust Fund cash account. The cash proceeds from the monetization will then be held in the AF Trust Fund prior to their allocation by the AF Board.

31. **Selection of a Settlement Agent:** The Trustee will conduct the selection of the Settlement Agent in a transparent manner following the procurement guidelines of the World Bank. Only firms that have experience in carbon trading and a strong settlement department will be considered for the role of Settlement Agent.

32. **Role of the Settlement Agent**: The Trustee will request that the Settlement Agent take charge of the following responsibilities and will monitor their performance in executing these tasks:

i) Participate in all the clearing and settlement functions once the trade is performed by the Trustee.

ii) Liaise between the Trustee and the carbon exchanges on which the trades are executed.

iii) Offer an on-line trading platform, if possible, which allows the Trustee to directly link and trade on the selected CER exchanges.

iv) The Trustee will instruct the Settlement Agent to hold a provisional stock of CERs in preparation of transaction settlements, in the Settlement Agent's account in the registry used for settlement (AF's subaccount with the Settlement Agent). The Trustee will require the Settlement Agent to maintain a stock that will not exceed two weeks of transactions on the exchanges.

v) Acting as a representative of the Trustee, instructs transfer of CERs from the CDM registry, to the Settlement Agent account with the registry used for settlement AF's subaccount with the Settlement Agent, and then to the clearing house used for the settlement.

vi) Working with the exchanges, distinguish between eligible and non-eligible CERs.

vii) Execute currency exchange, after cash proceeds are received.

viii) Manage margin requirements in connection with future trades.

F. Summary of Discussion

TABLE 1

	Optimization of Revenues	Minimization of Risk	Transparency	Inclusiveness	Cost Effectiveness	Funding Availability
Start of Monetization	After Connection	After Connection	After Connection	After Connection	After Connection	Before Connection
Ongoing Straight Sales on exchanges	Price efficiency in developed Market	Spot transactions, averaging of prices, DVP settlement	Liquidity and price transparency in large and developed exchanges	Large fraction of compliance buyers, either directly or through brokers trade on selected exchanges	Trading on exchange avoids dealer's fee. Cost of exchange membership	Spot transactions make funding immediately available
OTC sales through dealers based on criteria	Efficient distribution and price discovery by dealers. Pricing checked by Trustee	DVP settlement applies. Dealers provide information on market price evolution and best timing	The Trustee checks the pricing with public prices (exchanges or brokers). The Trustee has access to the order book of the dealer(s)	The dealer is requested to distribute broadly to all compliance buyers	Dealer's fee controlled by competitive selection process of dealer(s)	Immediate and large funding availability

IV. REPORTING

33. On a quarterly basis, the Trustee will provide the AF Board with a report on its activities undertaken under the CER Monetization Program.

34. The report will communicate the details of the trading activity in CER markets undertaken by the trustee on behalf of the AF. In such quarterly reports, the following information will be provided:

- Tonnage of CERs held by the AF CER account at the beginning and at the end of the period;

- Volume of new CERs tonnage entering the account of the AF in the CDM registry during the quarter; total volume of CERs having entered the AF CER account with the CDM registry since inception;

- Volume of sales of CERs executed during the quarter, and since the beginning of the calendar year; these volume of sales will be broken down into three categories: 1) spot sales on exchanges, 2) futures sales on exchanges, and 3) OTC sales.

- Revenues in cash associated with the sales of CERs (in euros and in US dollars) during the quarter, and since the beginning of the calendar year; these revenues will be broken down into three categories: 1) spot sales on exchanges, 2) futures sales on exchanges, and OTC sales.

- Average sales price per ton sold (in euros and in US dollars) during the quarter, and since the beginning of the year for CERs sold either spot or futures on exchanges or sold OTC;

- For futures trades, the tonnage of CERs to be delivered at various maturities in the future (for instance the December maturity of the year under review) and the cash amount to be received (in euros or in US dollars) at the expiration of the contracts. The report will indicate the value placed or received as collateral, the average at the beginning and at the end of the period.

35. In a highly volatile market, the Trustee will report on a more ad-hoc basis.

ATTACHMENT 1: BACKGROUND ON CARBON FINANCE

A. The Kyoto Mechanisms

1. Certain signatories to the KP (the so-called Annex I countries: 38 industrialized countries and 11 countries with economies in transition) agreed to reduce their GHG emissions by 5.2% below their 1990 levels by the end of the first commitment period (2008-2012).

2. The Kyoto Protocol (KP) offers three market-based mechanisms that will assist Annex I countries (developed countries and economies in transition) to supplement their national efforts to meet the targets of the Kyoto Protocol. These mechanisms exploit the opportunities arising from the differences in the cost of reducing greenhouse gas emissions in different regions and the fact that the impact on and benefit to the atmosphere is the same.

3. The three mechanisms are the Clean Development Mechanism (CDM), the Joint Implementation (JI), and the Emission Trading. The CDM allows developed countries and transition countries to sponsor projects that reduce greenhouse gas emissions in developing countries in return for Certified Emission Reductions (CERs) that they can use against their own KP greenhouse gas reduction targets. The JI allows developed countries and transition countries implementing project activities that reduce emissions in other developed or transition countries in return for Emission Reductions Units (ERUs). The emission trading scheme allows developed countries and transition countries to trade among themselves some of their Assigned Amount Units (AAUs), acquired CERs, ERUs, and Removal Units (RMUs).

B. Clean Development Mechanism

4. The CDM offers developed countries an alternative to reducing their own emissions. It allows them to purchase CERs. These CERs are generated by projects located in developing nations which provide emission reductions that are additional to what would otherwise have occurred. One CER equals 1 ton CO_2e.

5. A project must follow specific steps to produce CERs. The CDM Executive Board will validate the compliance of the project with certain requirements and will formally accept it as a CDM project. The acceptance by the CDM means that emission reductions (ERs) generated by the project may be used by countries to meet their KP targets. The CDM Executive Board will verify ex-post the amount of CO_2e reductions generated over a period of time by the project activity and will issue and certify these ERs (CERs).

6. The holding, transfer and acquisition of CERs and the other Kyoto Units is tracked and recorded through a system including three components. Each Annex I country maintains a national registry which contains accounts for holding the country's

Kyoto Units as well as those held by any legal entity authorized by the country. Transfer and acquisitions of CERs between entities take place through these national registries. An International Transaction Log (ITL) verifies transactions as they are proposed, including their issuance, transfer and acquisition between registries. The CDM registry contains CER accounts for the developing countries participating in the CDM and for the AF.

7. Upon being instructed by the CDM Executive Board to issue CERs, the CDM registry administrator issues specified quantity of CERs. The CDM registry forwards two percent of the CERs issued to the AF account and forwards the remaining CERs to the registry accounts of countries and project participants involved, in accordance with their request.

C. European Emissions Trading Scheme (EU ETS)

8. The trading of carbon assets has considerably developed in the last couple of years especially in Europe with the establishment of the EU ETS. The EU ETS was established to help the European countries to meet their individual commitments under the Kyoto Protocol. The EU ETS is in its second phase from 2008-2012 and is expected to reduce emissions 8% below the 1990 level.

9. Under this scheme, entities must hold emission permits (allowances - EUA) in order to be able to emit CO2e. Each country establishes a National Allocation Plan (NAP) that sets the nominal emission reductions that will be achieved during a period and creates the allowances that could be traded to help the entities to meet their targets. The NAPs are approved by the European Commission. In addition, the EU ETS allows the use of CERs to help the European countries to meet their emission targets. All CERs except those from nuclear facilities and land use, land-use change and forestry activities may be accepted. However, each NAP specifies a maximum amount of CERs (and ERUs) that may be used for compliance purposes by operators in the EU ETS. The EUA represents 1 ton of CO2e and is fungible across European countries.

10. Each EU country has a registry used to record the holding and transfer of all issued EUAs. These registries have accounts for each entity that wish to participate in trading. The registries are linked through a Community Independent Transaction Log (CITL) that records all the transfers of allowances between parties. The CITL needs to be linked with the ITL in order to transfer the CERs issued by the CDM into the EU ETS.

ATTACHMENT II: CARBON EXCHANGES

1. ECX is owned by Climate Exchange Plc, which also owns the Chicago Climate Exchange (CCX). The parent company was founded in 2002 with the establishment of the CCX. The ECX was launched two years later in 2004 and began trading in EUA futures in 2005. Trading in CER futures began in 2008. ECX currently does not do any trading on the spot market, although it has not ruled out the possibility sometime in the future. ECX has 93 members and is located in London.

2. BlueNext was incorporated in December of 2007 as a joint venture between the NYSE-Euronext and Caisse des Dépôts. In addition to being the only major carbon exchange trading in the EUA and CER spot markets, it also has recently begun trading in the futures markets for both assets. BlueNext has 82 members and is based in Paris.

ATTACHMENT III: GLOSSARY

Adaptation Fund Trust Fund: Trust fund for the AF established by the Trustee. Cash proceeds from monetization of CERs, investment income and any contributions to the AF Trust Fund will be held in the AF Trust Fund prior to disbursement on AF Board-approved Programs and projects.

Annex I Countries/Parties: Parties include the industrialized countries that were members of the Organization for Economic Co-operation and Development (OECD) in 1992, plus countries with economies in transition (the EIT Parties), including the Russian Federation, Baltic States, and several Central and Eastern European States.

Annex B Countries/Parties: Countries included in Annex B to the Kyoto Protocol that have agreed to a target for their greenhouse gas emissions.

Assigned Amount Unit (AAU): Assigned Amount Units are the quantity of greenhouse gases that an Annex I country can release in accordance with the Kyoto Protocol, during the first commitment period of that protocol (2008-12).

Cap-and-trade system: A system under which a government or international body sets a cap on the amount of emissions a polluter can emit and issues allowances accordingly. Polluters are required to hold allowances which represent the right to emit a fixed amount of emissions. Polluters that exceed their fixed amount can buy allowances in the market. Polluters that fall below their fixed amount can sell their allowances.

Carbon dioxide equivalent (CO2e): The universal unit of measurement used to indicate the global warming potential of each of the six greenhouse gases. Carbon dioxide – a naturally occurring gas that is a byproduct of burning fossil fuels and biomass, land-use changes, and other industrial processes – is the reference gas against which the other greenhouse gases are measured.

CDM Registry: Electronic database managed by the UNFCC secretariat, serving as the CDM registry administrator, into which CERs are issued from CDM projects and from which CERs are distributed to national registries.

Certified Emission Reduction (CER): A certified emission reduction is a carbon credit worth 1 metric ton of avoided or reduced carbon dioxide equivalent under the rules of the KP. CERs are issued by the CDM Executive Board and recorded in the CDM registry.

Clean Development Mechanism (CDM): The mechanism, defined in Article 12 of the Kyoto Protocol, permits countries with an emission-reduction or emission-limitation commitment (Annex B Party) to implement emission-reduction projects in developing countries. These projects earn CERs that can be counted towards meeting Kyoto targets.

Community Independent Transaction Log (CITL): The CITL records the issuance, transfer, cancellation, retirement and banking of allowances that take place in the national registries of EU Member States.

Delivery Versus Payment (DVP): Delivery of a security or a commodity contingent upon receiving payment in cash. This is the norm for settling securities on major international exchanges in order to reduce the risk in the settlement of the transaction.

Emissions Reduction Purchase Agreement (ERPA): Agreement which governs the purchase and sale of emission reductions under the Kyoto Protocol.

Emission Reduction Unit (ERU): A unit of emission reductions issued pursuant to Joint Implementation. This unit is equal to one metric ton of carbon dioxide equivalent and is usable against a country's Kyoto targets.

Emissions Trading: Emissions trading, defined in Article 17 of the Kyoto Protocol, allows countries to sell emissions in excess to their emissions targets to countries that are over their targets. Emissions trading is one of the three KM.

EU Emission Allowance (EUA): EUAs are the allowances in use under the EU ETS. An EUA unit is equal to one metric ton of carbon dioxide equivalent.

European Union Emissions Trading Scheme (EU ETS): The EU ETS is the European Unions emission trading mechanism. It was launched on January 1, 2005 as part of EU climate policy towards its Kyoto commitment and beyond. In its first phase from 2005 to 2007, the EU ETS regulated CO2 emissions from energy intensive installations representing some 40 percent of EU emissions. Those emissions were capped at 6,600 CO2 over the 2005-2007 period. Following this pilot phase, extending from 2008 to 2012, an average annual cap at 5.8% below 2005 verified emissions was set. To meet their compliance requirements, installations may use EUAs, CERs and ERUs (the latter for Phase II only). Further information may be found at http://ec.europa.eu/ environment /climat/emission.htm

Forward Contract: A forward contract is a non-standardized contractual agreement traded over the counter, to buy or sell a particular financial instrument or commodity at a certain date in the future, at a specified price.

Futures Contract: A futures contract is a standardized contractual agreement, traded on a futures exchange, to buy or sell a particular financial instrument or commodity at a certain date in the future, at a specified price. A futures contract has lower risk that a forward contract because it is (i) marked to market on a daily basis and (ii) the settlement failure risk is borne by an exchange.

International Transaction Log (ITL): The ITL links together the national registries and the CDM registry and is in charge of verifying the validity of transactions (issuance, transfer and acquisition between registries, cancellation, expiration and replacement, retirement and carry-over). It is the connected to the CDM registry and Japans's, New Zealand's, the Russian Federation's, and Switzerland's national registries. Connections to other national registries are currently being implemented.

CITL-ITL Connection: CITL and ITL are the transaction logs that check if transactions between registries fulfill the requirements of the KM and the EU ETS respectively. Currently ITL and CITL are disconnected impeding the transfer of CERs issued under the CDM to national registries in the European Union. The connection, originally scheduled for 2007, was completed on October 16, 2008.

Joint Implementation (JI): The mechanisms, defined in Article 6 of the Kyoto Protocol, allows Annex B Parties to earn ERUs from an emission-reduction or emission removal project in another Annex B Party that can be counted towards meeting its Kyoto target.

Kyoto Mechanisms (KM): The three flexibility mechanisms that may be used by Annex I Parties to the Kyoto Protocol to fulfill their commitments through emissions trading (Art. 17). Those are the Joint Implementation (JI, Art. 6), Clean Development Mechanism (CDM, Art. 12) and trading of Assigned Amount Units (AAUs).

Linking Directive EU-ETS: The Linking Directive allows for the import of CDM emission reduction credits from activities located in developing countries and tapping mitigation potentials in the industry, in the waste management sector, in the mining sector, etc.

Long-term CERs (lCERs) and Temporary CERs (tCERs): Long-term CERs (lCERs) and temporary CERs (tCERs) are granted for projects that remove (sequester) carbon from the atmosphere and store it in vegetation and soil through afforestation and reforestation projects. These projects carry the risk of non-permanence, because the sequestered carbon could be released to atmosphere as a result of natural or human disturbances. Hence the credit is only issued and renewed for as long as the carbon is sequestered, and up to a maximum of 60 years. A lCER is issued (pursuant to Article 12 of the Kyoto Protocol) for an afforestation or reforestation CDM project activity, which expires at the end of the crediting period of the project activity for which it was issued (20 or 30 years). A tCER is issued (pursuant to Article 12 of the Kyoto Protocol) for an afforestation or reforestation CDM project activity, which expires at the end of the commitment period (5 years). Both tCERs and lCERs are subject to a 5-year verification cycle. The national registries have to include a tCER replacement account for each commitment period in order to replace them before expiry with other emission certificates (AAUs, CERs, ERUs, RMUs and/or tCERs).

Monetization: The term "monetization" follows the way it is used in CMP Decision 1/CMP.3. Monetization is a transaction that transforms CERs into cash.

National Allocation Plan (NAP): Documents, established by each Member State and reviewed by the European Commission, that specify the list of installations under the EU

ETS and their absolute emissions caps, the amount of CERs and ERUs that may be used by these installations as well as other features such as the size of the new entrants reserve and the treatment of exiting installations or the process of allocation (free allocation or auctioning).

Over-the-Counter (OTC): OTC transactions refer to the trading of financial instruments directly between two parties. By contrast, exchange transactions refer to the trading of financial instruments through corporate entities such as stock or futures exchanges.

Primary Market Transaction: A primary market transaction is a transaction between the original owner (or issuer) of the carbon asset and a buyer.

Secondary Market Transaction: A secondary market transaction is transaction where the seller is not the original owner (or issuer) of the Carbon asset.

Spot Transaction: Purchase or sale of an underlying instrument at a specified price for immediate (normally not more than two days) delivery. By contrast, a forward transaction is the purchase or sale of an underlying instrument at a specified price for delivery on a fixed future date.

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