SUMMARY OF FINANCIAL AND ACCOUNTING ISSUES RELATING TO THE FUNCTIONING OF THE CLEAN DEVELOPMENT MECHANISM AND THE CORRESPONDING SUPPORT FROM THE SECRETARIAT

Paper prepared by Crispian Olver (with input from Mischa Classen and Pedro Barata) as part of the research programme to support the CDM Policy Dialogue

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PAPER PREPARED BY CRISPIAN OLVER
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AS PART OF THE RESEARCH PROGRAMME TO SUPPORT
THE CDM POLICY DIALOGUE

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Contents

List of abbreviations

CDM	clean development mechanism
CERs	certified emission reductions
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CO_2	carbon dioxide
COP	Conference of the Parties
EB	Executive Board of the clean development mechanism
JI	joint implementation
MAP	management action plan
MTEF	medium-term expenditure framework
PSC	programme support costs
SDM	Sustainable Development Mechanisms programme
SOP	share of proceeds
TCO	total cost of ownership
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change

1. Background

This paper was commissioned as part of a programme of research to inform the work of the High-Level Panel on the clean development mechanism (CDM) Policy Dialogue. It focuses specifically on issues relating to the financing of the secretariat's activities in relation to the CDM that are of relevance to the work of the High-Level Panel, as well as on any associated financial planning and management issues. The paper analyses the legal mandates and requirements relating to the budget and expenditure of the CDM, the trends in expenditure and revenue, and the financial accounting, reporting and management of the CDM finances. It does not provide an exhaustive investigation of these areas; rather it is concerned with identifying significant governance matters in relation to the CDM that the High-Level Panel may wish to include in its report. The paper concludes by making some recommendations regarding the above-mentioned areas, for consideration by the High-Level Panel.

Within the UNFCCC secretariat, the Sustainable Development Mechanisms division (SDM) is mandated to support the operation of the CDM. It provides similar support functions to the joint implementation (JI) mechanism, albeit on a smaller scale. The functions provided by the secretariat to the CDM are detailed in annex I to decision 4/CMP.1, which deals with the modalities and procedures for the CDM [1] and which requires the Executive Secretary of the UNFCCC to provide the staff and services required to service the CDM Executive Board (EB). This decision also spells out the mandate of, and functions to be provided, and indicates that the financial regulations of the United Nations (UN) and the financial procedures of the UNFCCC apply to the CDM. Decision 7/CMP.1 (paras. 15 and 16) defines the SDM's functions in general. Each decision of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) on the CDM mandates the secretariat to undertake additional tasks.

The EB is mandated to determine its annual budget for the CDM's functions, including those performed by the secretariat, and it reports annually to the CMP on the administration of the funds. The CMP guides the EB in its executive and supervisory role in relation to the CDM by defining the services, administrative support functions and financial resources that the EB and its substructures need to perform their work. The guidance also requires the secretariat to provide a breakdown of the resources allocated to the services that the EB provides (as identified in its management action plan (MAP)), in particular the costs and geographical distribution of staff and consultants. The fulfilment of the above-mentioned mandates is discussed in more detail in the following sections.

1 Annex todecision 3/CMP.1, in document FCCC/KP/CMP/2005/8/Add.1.

2. Income to support CDM activities

The CDM is largely a self-financing mechanism and income from fees and the share of proceeds has exceeded expenditure for several years.[2] Excluding the carry-over amount from 2010, the two largest sources of income for the EB and the secretariat in 2011 were registration fees (31.7% of the income in 2011) and the share of project proceeds (67.8% of the income in 2011). Some smaller amounts come from fees collected in connection with methodology approval and accreditation (consisting of both fees collected from applications for the accreditation of designated operational entities (DOEs), and fees collected from the accreditation process[3]), which amounted to USD 480,000 in 2011 and USD 100,000 for the period January to May 2012.

A more detailed breakdown of the income of the CDM in 2011 is provided in table 1.

During the prompt-start phase of the CDM (prior to the fifth session of the CMP, in Montreal, in 2005) direct contributions from Parties were integral to building up the CDM's infrastructure. The CDM also received some in-kind support by means of governments hosting meetings and contributions towards joint activities (e.g. the Nairobi Framework), which are documented in the financial annexes of the reports on the relevant EB meetings. Since the share of proceeds (SOP) are only genereated when issuance of certified emission reductions (CERs) is occurring, an interim funding source was needed in the early stages of the CDM and it fell upon voluntary contributions from Parties to the Kyoto Protocol to finance the CDM's expenditure.[4] At the seventh session of the Conference of the Parties (COP), Parties were invited to make contributions towards the prompt start of the CDM (decisions 17/CP.7 and 38/CP.7), with the former decision (para. 17) stating that such contributions could be reimbursed upon request. Between 2002 and 2007 the CDM received approximately USD 16.7 million in contributions from Parties. Only at CMP 1 in Montreal was a fee established to cover administrative expenditure.[5] Voluntary contributions dropped considerably in the period 2008–2009 (an additional USD 460,000 was received over two years) as the mechanism became self-financing. Governments and non-governmental organizations continue to make smaller contributions towards hosting meetings (e.g. of

Table 1. CDM income received in 2011, including carry-over from 2010

Item	Amount in USD	Percentage of total income	Percentage of income from fees
Carry-over from 2010[1]	38,045,707	34.99	
Fees from applications[2]	367,281	0.34	0.53
Fees from the accreditation process[3]	125,395	0.12	0.18
Registration fees	21,066,915	19.37	30.36
Methodology approval fees	10,908	0.01	0.02
Share of proceeds (SOP)	47,817,751	43.97	68.91
Subtotal (fees and SOP)	*69,388,250*	*63.81*	*100.00*
Interest accrued in 2011	1,313,137	1.21	
Total available funds 2011	**108,747,094**	**100.00**	

Source: UNFCCC secretariat, personal communication, June 13, 2012.

Note: USD 45 million held in reserve (set at the forty-fifth meeting of the EB, in 2009) is not included in the above figures.

1 Includes interest accrued on the CDM Trust Fund in 2009 and 2010 of USD 4,402,055. This amount will fund the CDM Loan Scheme (decision 3/CMP.6, para. 65).

2 The fees collected from applications are one-off accreditation fees (USD 15,000). Fees are due at accreditation and at reaccreditation (after three years of accredited status).

3 The fees collected from the accreditation process cover other costs for members of the CDM Accreditation Panel, such as travel, accommodation and feesFurther details can be found in annex 2 to the report on the fifty-sixth meeting of the EB.

2 Written communication from the UNFCCC secretariat dated June 6, 2012.

3 Personal communication from the UNFCCC secretariat dated June 19, 2012.

4 Personal communication from a former EB member dated June 19, 2012.

5 Personal communication from the UNFCCC secretariat dated June 22, 2012. See also decision 7/CMP.1, para. 37.

the Small-Scale Working Group) and for collaborative projects (e.g. the Nairobi Framework). In 2010 some Parties 'reallocated' USD 3.5 million worth of reimbursements of contributions previously made to the CDM Trust Fund to funding JI. In total the CDM has received approximately USD 13.6 million from voluntary contributions.[6] The historical figures for Party contributions, own revenue and expenditure, together with the cumulative balance, are shown in table 2.

The 'share of proceeds' to cover the administrative expenses of the CDM was discussed at the EB's twenty-first meeting.[7] The EB and the CMP considered several options for monetizing a share of proceeds from projects, including levying it on the final value of CERs, since this would provide an incentive to safeguard the value of the asset.[8] In the end, the CMP decided to adopt the current monetary formula, for reasons of simplicity, cost predictability, fairness and the predictability of revenue that is independent of CER values. The CMP, by its decision 7/CMP.1,[9] also adopted the proposal to accrue resources to cover the administrative expenses for operational functions as of 2008. The decision made it clear that CERs can only be issued once the share of proceeds has been received.

The share of proceeds was determined as a fixed amount per CER rather than as a percentage of its selling price, as follows:

- USD 0.10 per CER issued for the first 15,000 requested tonnes of carbon dioxide (CO_2) equivalent in a given calendar year;
- USD 0.20 per CER issued for any amount in excess of 15,000 requested tonnes of CO_2 equivalent in a given calendar year.

The decision did indicate that the rate of the share of proceeds would be reviewed at the second session of the CMP if a surplus were generated, but no such surplus had been generated by then. Despite surpluses having been accrued for the last four years, the CMP has not reviewed the rate. Many Parties recognize that lowering the rate might provide the wrong signal in terms of commitment to the CDM, and discussions have instead turned to alternative uses for the share of proceeds and the quality of the current financial management.[10] During the CDM Policy Dialogue stakeholders have not raised concerns about this revenue source and the EB has no plans to amend it.[11]

Table .: Historical trends in CDM funding (in USD)

Year	Party contributions	Fees/SOP	Expenditure	Balance	Cumulative balance
2002	916,491	0	624,110	292,381	292,381
2003	2,055,683	307,412	904,693	1,458,402	1,750,783
2004	1,244,609	222,350	1,913,339	-446,380	1,304,403
2005	3,284,230	1,706,257	1,158,278	3,832,209	5,136,612
2006	5,328,661	13,655,863	5,102,901	13,881,623	19,018,235
2007	3,875,847	26,558,822	10,250,840	20,183,829	39,202,064
2008	231,228	39,384,344	17,612,253	22,003,319	61,205,383
2009	225,912	37,414,738	20,653,450	16,987,200	78,192,583
2010	–3,501,923	33,687,822	29,404,145	781,754	78,974,337
2011	31,880	70,643,623	34,230,187	36,445,316	115,419,653

Source: UNFCCC secretariat, personal communication, June 19, 2012..

6 Personal communication from the UNFCCC secretariat dated June 19, 2012.

7 EB 21 report, paras. 76 and 77.

8 Personal communication from a former EB member dated June 19, 2012.

9 Decision 7/CMP.1, paras. 37–39.

10 Personal communication from a former EB member dated June 19, 2012.

11 Written communication from the UNFCCC secretariat dated June 6, 2012.

The EB charges a registration fee as an advance payment on the share of proceeds for the expected average annual amount of CERs. The registration fee is capped at USD 350,000 and is deducted from the share of proceeds due for issued CERs. All but USD 30,000 is reimbursed if the project is not registered.[12]

Various exemptions and incentives exist in the fee system, which has evolved over time.[13] For example, no share of proceeds or registration fee is due for project activities hosted in the least developed countries (LDCs). No registration fee is payable for projects with expected average annual emission reductions over the crediting period below 15,000 tonnes of CO_2 equivalent. No registration fee needs to be paid until after the date of the first issued CER in countries with fewer than 10 registered CDM projects. The LDCs' exemption from paying the registration fee only came about following the discussion of such proposals as late as 2009.[14] The EB has discussed registration fees extensively from its earliest meetings,[15] and a good description of the evolution of their approach is provided in the EB 54 report, annex 29.

12 EB 54 report, annex 29, para. 8.

13 The latest version appears in the EB 66 report, annex 64 (Project cycle procedure), appendix 1 (Registration fee schedule). The related decisions of the CMP are:
Decision 4/CMP.1, annex II, para. 21 (Simplified modalities and procedures for small-scale CDM project activities);
Decision 6/CMP.1, para. 13 (reduced level of registration fee for small-scale afforestation/reforestation project activities);
Decision 2/CMP.3, para. 31 (abolishment of the registration fee for the least developed countries);
Decision 2/CMP.5, para. 47 (deference of the payment of the registration fee for countries with fewer than 10 registered CDM projects).

14 Personal communication from a former EB member dated June 19, 2012.

15 See EB 5 report, para. 23; and EB 6 report, para. 17 and annex 5.

3. Expenditure on CDM activities

Table 3 shows the secretariat's current budget and expenditure for 2011 by object of expenditure. Most functional areas show a general trend of under expenditure, indicating that not all budgeted resources are used. This is a continuation of a historical trend and indicates a risk-averse approach to budgeting, in which the budget estimate is always the maximum possible and the practice is to spend less than the budgeted amount. In terms of budget management this is not the most effective way of controlling resources. The only object on which there is significant over expenditure is overtime (201.37% utilization rate), which reflects the large workload of the secretariat staff; although it must be noted that overtime is only paid to general support staff and that professional staff are not remunerated for overtime.[16]

The largest expenditure was on staff (56.85% of total expenditure), which, given the personnel-driven nature of the secretariat's work, is not surprising. The majority of the use of the staff budget resulted from the enlargement of the Project and Entity and Assessment unit (i.e. the part of the secretariat involved with the review of projects and the accreditation of DOEs). The expenditure by business unit of SDM (excluding overhead costs) in 2011 is shown in table 4. The three units with the largest expenditures are Project and Entity Assessment (24.04% of total expenditure), Process Management (15.61% of total) and Standard-Setting (12.85% of total). This expenditure reflects the workload and priorities assigned to these core functional areas and the high proportion of costs related to the review of project cases, notably the review of validation and verification cases by the Project and Entity Assessment unit.[17] Note that the expenditure of the Process Management Unit includes the costs of meetings of the EB as well as of the Accreditation and Methodologies Panels and meetings of the Afforestation and Reforestation and Small-Scale Working Groups.

Some stakeholders have indicated that a better, more automated review process and a more balanced approach between the assessment of the performance of DOEs and the conduct of reviews could lower the staff requirements and

Table 3. UNFCCC secretariat budget and expenditure as at 31 December 2011, by UN object of expenditure

Object of expenditure	Budget in USD	Expenditure in USD	Utilization rate in %	Percentage of total expenditure
Staff	18,867,332	19,458,578	103.13	56.85
General temporary assistance	1,011,929	690,817	68.27	2.02
Consultants	1,474,226	774,167	52.51	2.26
Experts' fees	1,568,400	947,069	60.38	2.77
Experts' travel	3,069,500	1,576,999	51.38	4.61
Overtime	37,986	76,492	201.37	0.22
Travel of representatives	2,083,500	1,632,715	78.36	4.77
Travel of staff	1,271,300	908,903	71.49	2.66
Training and skills development	831,000	659,778	79.40	1.93
Operating expenses	3,881,610	3,172,680	81.74	9.27
Communications	72,000	70,453	97.85	0.21
Supplies and materials	631,535	95,322	15.09	0.28
Grants for members of the Executive Board	362,000	228,227	63.05	0.67
Subtotal	*35,162,318*	*30,292,201*	*86.15*	*88.50*
Programme support (13% overhead)	4,571,101	3,937,986	86.15	11.50
Grand total	**39,733,419**	**34,230,187**	**86.15**	**100.00**

Source: UNFCCC secretariat, personal communication, June 13, 2012.

16 Decision 2/CMP.5, para. 58.

17 Personal communication from a former EB member dated June 19, 2012.

Table 4. Comparison of budget and expenditure, as at 31 December 2011 by SDM business unit

Unit	Budget in USD	Expenditure in USD	Utilization rate in %	Percentage of total expenditure
Process Management	5,383,269	5,343,490	99.26	15.61
Standard-Setting	5,031,461	4,399,073	87.43	12.85
Project and Entity Assessment	9,882,171	8,228,861	83.27	24.04
Organization and Stakeholder Development	3,169,245	2,702,603	85.28	7.90
Strategy and Policy Development	731,971	819,250	111.92	2.39
Office of the Director	459,736	493,832	107.42	1.44
Services and Management Support	3,893,809	3,456,338	88.76	10.10
CDM Executive Board meetings	1,498,100	1,665,014	111.14	4.86
Designated National Authorities Forum	1,569,500	1,197,862	76.32	3.50
IT services	3,543,057	2,489,739	70.27	7.27
Subtotal	*35,162,319*	*30,292,201*	*86.15*	*88.50*
Programme support (13% overhead)	4,571,101	3,937,986	86.15	11.50
Grand total	**39,733,420**	**34,230,187**	**86.15**	**100.00**

Source: UNFCCC secretariat, personal communication, June 13, 2012.

Notes: Subtotal expenditure for 2011 adjusted for savings made in prior periods; programme support funds are used for CDM-related expenses only.

costs of the secretariat .[18] But it is important to note the recent reductions in the time required to process cases after project submission, through efforts made to improve the quality of registration and issuance requests from DOEs. Further improvements to information systems and the digitalization of the CDMprocess have been planned for this year in the current MAP.[19]

The 103.13% utilization rate of the staff budget (see table 3) is an improvement on the historical trend of under expenditure on this object. In previous years the secretariat has struggled to keep up with the ever-expanding set of posts in successive MAPs, due at least in part to slow UN recruitment processes. This has meant there have been fewer personnel at year-end than the requirements set out in the MAP. This state of affairs resulted in the request at CMP 5 for the secretariat to “implement the staffing requirements in the management plan in an expeditious manner” and to “apply a flexible recruitment process to fill vacant positions”.[20]

The management of the personnel budget poses particular risks to the CDM in the light of the uncertain nature of CDM revenues. On the liability side, SDM is currently employing approximately 170 staff, some of which are located within other programmes (Conference Affairs Services and Legal Affairs).[21] In its effort to attract competent candidates, the secretariat commits itself to 18-month or three-year contracts for every post that is filled through a competitive selection process. Moreover, the secretariat has accrued actuarial liabilities relating to staff entitlements, including after-service health insurance. Because services provided by other parts of the secretariat contribute to the work under the CDM, a portion of the CDM funds are used to finance these services, including funds for CDM-related work and staff in other programmes, as well as funds for CDM-related overhead costs through total cost of ownership (TCO) and programme support costs (PSC).[22] Given this scenario and the uncertainty of the amount of income that the CDM and JI will generate in the coming years, careful projections and a clear plan are needed in order to manage possible downsizing and fall-back positions.

SDM, as part of the UNFCCC secretariat, uses fixed-term appointments, with initial contracts issued for 18 months

18 Ibid.

19 Personal communication from the UNFCCC secretariat dated June 22, 2012.

20 Draft decision 2/CMP.5“Further guidance relating to the clean development mechanism”.

21 Written communication from the UNFCCC secretariat, dated June 6, 2012.

22 Ibid.

and subsequent extensions for three years at a time.[23] At the same time, SDM also uses temporary appointments to meet its truly short-term staffing requirements. In such cases, contracts are only issued for the defined period of the requirement and are not meant to exceed 364 days.[24] The secretariat needs to monitor its mandates and available income carefully and in all cases ensures that posts are still needed and that funds are available for them. If CDM revenues drop significantly, SDM has the option of looking into the feasibility of redeploying persons within the secretariat and/or limiting contract extensions to shorter periods, thereby reducing risks to the organization.[25]

Given the issues that have been raised by stakeholders regarding the importance of outreach and media communications, the low level of expenditure on this function (USD 70,452 or 0.21% of the total expenditure in 2011) stands out. The secretariat has indicated that this does not accurately reflect the expenditure on communications under the CDM, and that the full budget for outreach and media communications for 2011 was USD 236,000 (0.59% of the total budget), not including staff.[26] Staff costs for communications have been estimated at around USD 750,000, so the expenditure on communications is probably around USD 1 million per year.[27] It is difficult to obtain accurate figures for this important area of expenditure, but, regardless of the final figure, it seems low for a regulatory mechanism with substantial communications-related requirements. This matter has been discussed on a number of occasions by the EB and there appears to be some frustration with the lack of progress, despite a clear case for increasing the priority of this object of expenditure.[28]

The 13% project support cost (PSC) is based on the standard UN percentage for this object. The UNFCCC secretariat provides the centralized services listed below that fall under both PSC and TCO. The secretariat pays the fees from the CDM funds to the UNFCCC secretariat (and not to the UN head office):[29]

- Operation and maintenance of IT hardware and software infrastructure;
- Financial management systems;
- Central human resources management services;
- Routine external and internal audit functions;
- Central legal services;
- Management support;
- Procurement services;
- Budget preparation and control;
- Financial operations and accounts maintenance;
- Security services.

Some EB members consider PSC and TCO to be exceedingly high, in particular when compared with the overhead costs of similar organizations, such as the World Bank.[30] However, the secretariat has pointed out that 13% is the standard UN rate and it is not just applicable to the UNFCCC.[31] In the light of the high turnover in the CDM funds, and the lower rates of overhead costs in comparable organizations such as the World Bank, a case can clearly be made for reviewing the standard rates in the context of the CDM.

The fact that there are no funding flows from the CDM Trust Fund to non-CDM activities and the secretariat indicates that this rule is carefully enforced.[32] Even when JI was facing severe financial difficulties, the Joint Implementation Supervisory Committee had to introduce several cost-cutting measures before some Parties decided to reallocate some of their initial contributions to the prompt start of the CDM to fund JI.[33]

It is also important to note that the CDM benefits from the synergies available from being part of the wider UNFCCC secretariat, the costs of which are not fully internalized. Examples include the senior managerial oversight and support of the Executive Secretary, Deputy Executive Secretary and the Director, as well as the support of the Chief Legal Adviser. These are all examples of posts from which the CDM benefits but does not fund. These benefits must be offset against what appear to be higher than average

23 Ibid.

24 Ibid.

25 Ibid.

26 Written communication from the UNFCCC secretariat dated 6June 6, 2012.

27 Personal communication from the UNFCCC secretariat dated June 22, 2012.

28 Personal communication from a former EB member dated June 19, 2012.

29 Written communication from the UNFCCC secretariat dated June 6, 2012.

30 Personal communication from a former EB member dated June 19, 2012.

31 Personal communication from the UNFCCC secretariat dated June 22, 2012.

32 Written communication from the UNFCCC secretariat dated June 6, 2012.

33 In June 2010 the secretariat wrote to the Parties that had made contributions to the prompt start of the CDM and invited them to reallocate the funds to JI activities. There was no decision made by the CMP/a regulatory body in this regard, only an 'invitation' made. The allocation/reallocation of contributions remained at the sole discretion of the individual donors. Subsequently, the CMP revised the JI fees, which now keep JI also in a very healthy financial state.

overheads, and the disadvantages of operating within the UN bureaucracy, such as lengthy recruitment procedures.[34]

In summary, the CDM finances for 2011 appear to be in a healthy position, with total available funds standing at USD 108,747,094 and an expenditure of USD 34,230,187. This leaves the balance of CDM funds as of 31 December 2011 at USD 74,516,907. This figure does not include an amount of USD 45 million held in reserve from the previous financial years.[35] The management of the surplus and reserves is considered in more detail below. There are some areas of risk, such as the personnel budget, where further savings are possible, and current steps to reduce risks need to be encouraged. Further, some reductions in the PSC and TCO could be negotiated, on the basis of the turnover in the CDM funds and the comparison of these costs with those of other comparable organizations. There are also some objects of expenditure, such as communications, for which an increase in budget seems advisable.

34 Personal communication from a former EB member dated June 19, 2012.

35 Amount set at EB 45 in 2009.

4. Budget surpluses and reserves

At the beginning of 2012 the forecast income of the CDM in 2012 was estimated at USD 55 million and the expenditure at USD 45.3 million. As previously stated, the CDM is a fully self-financing mechanism, with income from the share of proceeds having exceeded expenditure for several years. In addition, the total accumulated funds from previous years amount to approximately USD 115.4 million.[36] While this is a comfortable situation to be in, it is anticipated that the number of new CDM projects will decrease significantly in the 2013–2015 period, which will have a direct impact on the CDM's budget balance.[37]

There has been a healthy surplus in income since 2005 and, as mentioned previously, the CDM has relied on voluntary contributions (mostly from European Parties to the Convention) since 2001.[38] The scale of the industrial gas CDM projects in particular has meant a substantial contribution to the CDM revenues. The placement of unused funds into reserves is as per the request of the EB.[39]

The accumulation of reserves is a necessary provision, since future low levels of demand could mean that the budget will need support from the reserves. Given the uncertainty regarding how the CDM will develop in the short and medium terms, as well as the unpredictable nature of the CDM revenues, the accumulated reserves will be essential to maintaining a critical level of CDM operations.[40] They also allow the mechanism to adapt as required to the emerging needs of Parties and the marketplace.

Using the expenditure in 2011 of USD 34.2 million as a base, if the CDM's income were to fall to zero, the CDM could fund its own operations for approximately three years. The minimum reserve was originally set at an amount of USD 30,000,000, which was calculated on the basis of 18 months of the 2008 budget.[41] It was increased to USD 45,000,000 at EB 45,[42] as a result of the increase in the CDM budget and in order to ensure sufficient funds to maintain operations for at least 18 months. Although the annual

Figure 1. Cumulative balance of the CDM funds as a multiple of the expenditure in the same year (amounts in USD)

Source: Figures taken from table 2 of this paper, the source of which was a personal communication from the UNFCCC secretariat dated June 19, 2012.

36 This is derived from table 2 of this paper, in which the cumulative surplus since the inception of the CDM is calculated. However, a different figure of USD 119.4 million is derived by adding the balance of the CDM funds as of 31 December 2011 (USD 74,516,907) to the amount of USD 45 million held in reserve from the previous financial years. The authors of this paper have not been able to resolve this discrepancy.

37 Ibid.

38 Personal communication from a former EB member dated June 19, 2012.

39 Written communication from the UNFCCC secretariat dated June 6, 2012.

40 EB 45 report, annex 71, paras. 78 and 79.

41 EB 32 report, annex 40, para. 37.

42 EB 45 report, annex 71, paras. 78 and 79.

CDM budget has since increased again, neither the EB nor the secretariat has seen the need to consider increasing the reserve, because the annual carry-over has, to date, been sufficient to maintain a healthy, positive balance.

The operating principle is that 18 months of operation should be assured. The current level of surplus is more than double this and in excess of the possible liabilities in any winding-down scenario. For these reasons, the rate at which the fees are set and the utilization of the accrued surplus funds are crucial matters for the CMP to discuss and decide upon.

Discussion has taken place at the level of the EB and the CMP on using the interest generated by the reserves to fund the CDM Loan Scheme.[43] Based on the EB's recommendation, at CMP 5 it was agreed to establish a CDM Loan Scheme and the EB was requested to allocate financial resources from the interest accrued on the principal of the CDM Trust Fund (as well as any voluntary contributions from donors). These resources are to be used to provide loans to countries with fewer than 10 registered CDM project activities to help cover the costs of the development of the project design document, validation and first verification. In addition, the CMP decided that the loans were to be repaid starting from the first issuance of CERs. At CMP 6, the CMP decided on the guidelines and modalities for the operationalization of the CDM Loan Scheme and the criteria for selecting the CDM project activities eligible to receive a loan.[44]

Furthermore, DOEs have proposed using a portion of the reserves or interest to capitalize a liability fund to mitigate risk faced by DOEs. However, the original purpose of the CDM fees, to cover direct CDM-related expenses, needs to be noted.

43 Decision 2/CMP.5, para. 49.

44 Annexes II and III to decision 3/CMP.6.

5. Projections of future revenues

In considering the future revenues of the CDM, there are a number of possible scenarios which might have an impact on the future funding model. There are a number of different factors that need to be taken into account, such as the frequency of registrations, issuance and new methodologies, and key milestones such as the end of the first commitment period under CDM (31 December 2012) and the adoption of work through the Durban Platform. The four scenarios described below are useful in considering the range of possible futures which might have an impact on the financing of the mechanism:[45]

- A rapid phase-out of CDM activities, with the number of registrations of new CDM projects approaching zero in 2013. The development of new methodologies is correspondingly reduced and the remaining CDM activities focus only on verification and issuance for existing projects.
- Decreased but continued CDM activities, with the number of new CDM projects decreasing significantly in 2013. The decrease continues until 2015 (time of adoption of the Durban Platform), after which CDM activities increase again to levels comparable with in the 2010–2011 period.
- Decreased but continued CDM activities, with the number of new CDM projects decreasing significantly in 2013 and gradually phasing out by 2015. However, activities under the new market mechanism increase at a corresponding rate and, on the presumption that these activities are located within the secretariat, its workload is maintained but shifts focus.
- Continued high volume of CDM projects, with increased attention paid to developing methodologies and processes to ready the CDM for a new market situation. This scenario assumes a continued or increased level of activities, but with a shift in focus, requiring a slightly different skill set among SDM staff.

In order to understand the likelihood of any of these scenarios, it is crucial to understand the temporal dynamics of the CDM's revenue generation. The lion's share of the revenue is generated: (i) from requests for registration; and (ii) before forwarding issued CERs. Hence, revenue is proportional to the [rate of?] processing of project cases. Two aspects need to be considered when projecting future CDM revenues: (i) the trends in registration and issuance; and (ii) the relationship between revenues and expenditure.

It is important to note that, while the number of registrations of new projects depends on developers putting forward new projects, the issuance of CERs from projects depends on the number of existing projects that are in the position to issue CERs. Therefore, while the revenue from registration fees will be affected by the stalled market situation, revenues from issuance could, at least in the medium term, remain relatively stable. Figure 12 shows the steady decline in requests for project registrations since 2007, although the figure does not capture the temporary peak in requests[46] for registration in advance of the end-2012 deadline set by the European Union for CDM projects from non-LDC countries to be able to supply CERs to the European Union emissions trading scheme[47,48]. Figure 2 also shows that, although the number of projects registered each year increased steadily up to 2011, the number of those new projects that issue increased to a lesser extent.

Since the number of new registration requests is expected to decline after 2012, most revenue will come from projects that are already issuing or will issue CERs in the future.

Revenue from existing projects depends to a large extent on the cycle of renewal of crediting periods. Roughly one third of the projects being issued CERs will have to request a renewal of their crediting period in 2013 (these projects were registered in 2005), but some project owners may opt not to renew. Issuance costs for the majority of developers are relatively small compared with the costs of the actual registration and development of a project, and are probably not a significant factor in decisions on whether to request issuance or not. But it is quite possible and indeed usual for project developers to defer issuance if they realise that the market spot price may be too low (as is currently the case).[49]

Based on past figures, the proportion of registered projects that will not see issuance is around half.[50] The remaining

45 Internal document entitled "Terms of Reference (ToR) – Planning & preparation for organizational impact planning", organizational unit: SDM/OD, UNFCCC, June 2012.

46 United Nations Environment Programme Risoe CDM Pipeline newsletter for May: "After the peak of 317 new CDM projects in April, the number of new submissions went down to 178 in May",

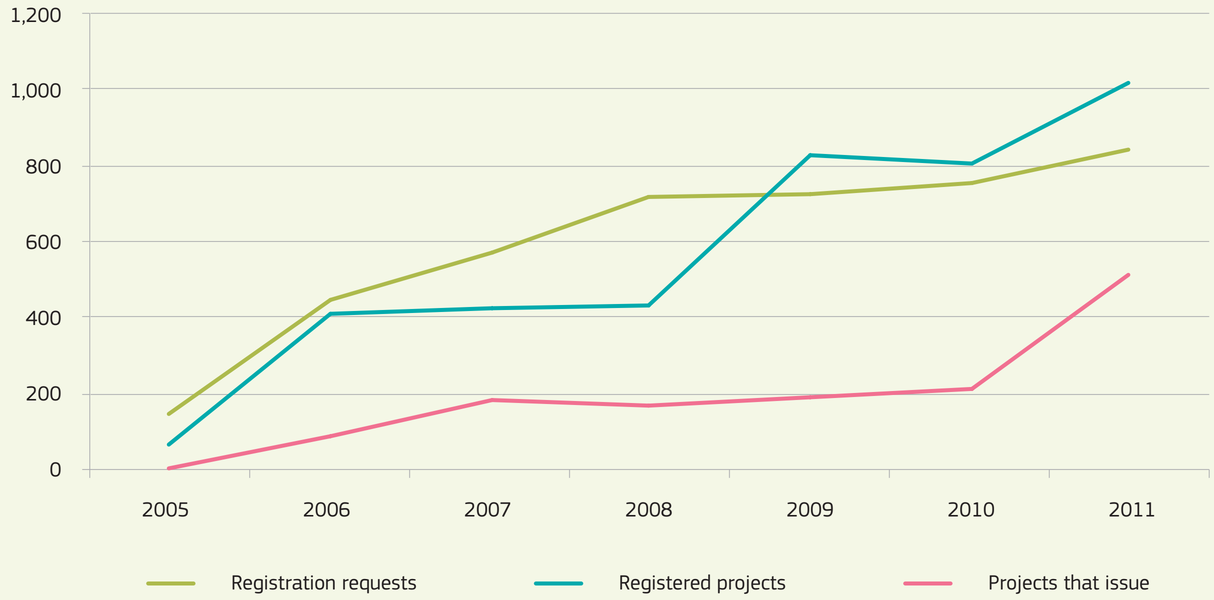
47 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

48 Note that registration takes about one year from project submission until the process is complete. This lag is visible inFigure 2

49 Personal communication from a former EB member dated June 19, 2012.

50 Of the 800 registered projects that entered the project cycle in 2007, more than 400 have not been issued CERs so far. This amounts to an issuance failure of roughly 50%.

Figure 2. Annual number of registration requests, registered projects and registered projects issued CERs from 2005 to May 2012



Source: Data from the United Nations Environment Programme Risoe CDM/JI Pipeline Analysis and Database, as at June 1, 2012; own graph.

half could start issuance in one or two years' time. However, in this instance historical trends may not be a reliable predictor of the future. Given the current value of CERs, with the profitability of operations falling below hurdle rates, the proportion of issuance that will be discontinued or suspended following the end of the year will most likely be in excess of the current historical rate.[51] As previously mentioned, the number of registered projects that are being issued CERs has increased at a lower rate than the number of registered projects (see figure 2).

It remains to be seen to what extent the new issuances will compensate for the old projects that do not renew their crediting periods and discontinue or delay issuance. The recent sharp increase in the number of registration requests should ensure that projects with first issuance after 2013 outnumber those without issuance, even though the issuance rates for the new projects are likely to be lower than such rates for those projects which are going to be discontinued. Nevertheless, numerical forecasts based on conservative assumptions that can be adjusted for new developments are needed. The largest uncertainty in such forecasts is how project proponents will react to low market prices in the mid-term and whether they will abandon registered projects.

Regarding the relationship between revenues and expenditure, it must be noted that management of resources is difficult in situations in which workload is decoupled from income. Registration fees are due in advance of any work, which provides some level of protection. Nevertheless, a drop in new registrations will require a concomitant reduction in deployed capacity. Table 4 shows that the Project and Entity Assessment business unit spends roughly one quarter of the CDM's budget annually. This indicates that a large portion of expenditure could be affected by a decline in submissions and the corresponding revenues. However, the secretariat has created a pool of trained external experts who they engage in such work, which can be rapidly scaled up or down according to need. Given that this is factored into the staffing levels, overstaffing may not be such an issue. Other factors that may negatively influence the relationship between revenue and expenditure are a decline in project size and an increase in the number of reviews. The EB and the secretariat should seek to better understand these dependencies and how much of the expenditure is fixed versus variable.

51 Personal communication from a former EB member dated June 19, 2012.

6. Financial management and accounting practices

As previously indicated, decision 4/CMP.1 sets out the modalities and procedures for the CDM, including that the financial regulations of the UN and the financial procedures of the UNFCCC apply to the CDM. The UNFCCC follows the UN Accounting Standards; it submits annual financial reports to the EB and annual and biennial reports to the COP. Furthermore, all UNFCCC accounts and business practices, including those of SDM, are audited by the UN Board of Auditors on an annual basis and by the Office of Internal Oversight Services on an ongoing basis, with the recent institutionalization of a resident auditor.[52]

It is recognized that the current UN accounting software is not easily adapted to the needs of the CDM, and the secretariat is trying to match the UN financial accounting systemto the financial reporting and accounting needed for a regulatory body such as the EB.[53]

The EB determines its annual budget for the CDM's functions, which includes the functions performed by the secretariat, and it is required to report annually to the CMP on the administration of the funds. Amongst other matters, the CMP guides the EB regarding the financial resources that the EB and its substructures need to perform their work. In terms of this guidance, the secretariat is required to provide a breakdown of the resources allocated to the EB's services, as identified in its MAP. There have been concerns over the years about the transparency of the EB and the secretariat's reporting. The MAP was introduced as a requirement at CMP 1 as a result of concerns about the opaqueness of the CDM's operations during the prompt-start period.[54] At CMP 2 the secretariat was requested "to implement expeditiously a management plan". Parties subsequently requested the secretariat to provide a detailed breakdown of the resources allocated and "an explanation of the financial reserve" at CMP 6.[55] It appears that the extent and transparency of the financial reporting has improved significantly and that Parties now feel better able to make informed judgements about the state of the CDM finances.[56]

With respect to future financing requirements and revenue projections, the UN Accounting Standards do not require budget forecasts beyond the immediate accounting period. This is a serious gap in the financial management of the CDM system. Various commentators have described the merits of following a medium-term expenditure framework (MTEF). The World Bank[57] describes an MTEF as consisting of "a top-down resource envelope, a bottom-up estimation of the current and medium-term costs of existing policy and, ultimately, the matching of these costs with available resources". The 'top-down resource envelope' is based on a long-term forecast of revenues and what is affordable. Countries base this on a macroeconomic model that indicates fiscal targets and estimates revenues and expenditure. For the CDM an equivalent exercise would involve the long-term forecasting of revenues and risks and the development of prudent long-term ceilings on expenditure, within the framework of which more detailed budgets would have to be drawn up. The top-down resource envelope is compared against a 'bottom-up' review of sectoral or unit policies and activities (typically using a zero-based budgeting approach[58]) and the two processes are reconciled in an iterative budgeting exercise.

Once the MTEF has been developed, it becomes a 'rolling MTEF' in that the first outward year's estimates become the basis for the subsequent year's budget once changes in the resource envelope have been taken into account. The integration of the top-down envelope with bottom-up sectoral programmes needs to be based on a formal decision-making process. As the World Bank[59] suggests: "Key to increasing predictability and strengthening the links between policy, planning and budgeting is an effective forum at the centre of government and associated institutional mechanisms that facilitate the making and enforcement of strategic resource allocation decisions". The equivalent exercise within the CDM would be vested within the budget office, with the EB's substructures and divisions within the secretariat making budget proposals to the EB, which are ultimately reconciled with available resources and mediated at the level of the EB with final approval by the CMP.

The budgeting for the CDM needs to be based on a rolling three-year forward projection of income and expenditure. The secretariat has indicated that it understands the risk involved in not having such information available and has taken steps to address this. A short-term consultant has been appointed and has commenced work on future forecasting. At the same time, recruitment is under way for an individual to provide such support and information in the longer term.[60] It is clear that long-term forecasting capacity is essential in order to move forward in the context of an

52 Written communication from the UNFCCC secretariat dated June 6, 2012.

53 Ibid.

54 Personal communication from a former EB member dated June 19, 2012.

55 Decision 2/CMP.5, para. 57.

56 Personal communication from a former EB member dated June 19, 2012.

57 World Bank's Public Expenditure Management Handbook (p.46).

58 Zero-based budgeting involves a unit-based estimate of expenditure on the basis of a detailed plan of expected activities, rather than an inflation-linked adjustment in terms previous budgets and expenditure.

59 World Bank's Public Expenditure Management Handbook (p.46).

60 Written communication from the UNFCCC secretariat dated June 6, 2012.

uncertain future, and that this should be linked to rolling medium-term budgeting with forward budget projections for a minimum of three years as a starting point.

The secretariat has indicated that it is developing long-term revenue forecasting capacity. An analysis of SDM's financial liabilities has been initiated, with projections of income and expenditure over the next five years for the different scenarios, including the financial impact of reduced TCO and PSC contributions on other programmes. This will result in a plan including practical steps to be taken in the case of downsizing or restructuring the SDM programme.[61]

Proposals are also being drawn up for an appropriate risk and mitigation plan, including appropriate indicators to monitor and report on as part of performance reporting against the approved CDM and JI MAPs.[62] Among the priorities set out in the 2012 CDM MAP is the introduction of more coherent monitoring and management of activities implemented under SDM in general, and under the MAP in particular. This will help to implement and monitor the risk and mitigation plan. Importantly, the indicators should be observable, meaningful and relevant to the objectives of the work and provide a valid assessment of the results achieved. They should clearly indicate whether the established risks are taken into account and the mitigation activities are adhered to.

The work on long-term forecasting, risk management and reform of accounting systems is clearly vital to the future of the CDM. The outcomes of the research will enable the EB and the secretariat to give serious consideration to this task and help them to put in place the requisite long-term internal capacity in the areas of forecasting, medium-term budget planning and risk management.

61 Internal document entitled "Terms of Reference (ToR) – Planning & preparation for organizational impact planning", organizational unit: SDM/OD, UNFCCC, June 2012.

62 Ibid.

7. Recommendations

In general, the finances of the CDM appear to be prudently managed, despite the challenges of financial management for a complex regulatory process within the constraints of the UN financial system. This paper has highlighted some concerns on both the revenue and expenditure side that require the attention of the secretariat, the EB and ultimately the CMP as the decision-making authority. The EB and the secretariat are engaged in a number of tentative actions that should be encouraged, supported and elevated in terms of focus and priority within the secretariat:

1. Most importantly, the evolving system of transparency and financial accountability linked to accountability for performance needs to be strengthened. The MAP is the instrument chosen by the CMP for this purpose, and the secretariat and the EB need to ensure not only that the correct financial and performance indicators are included in the plan, but also that it is used as a basis for regular monitoring, reporting and assessment.

2. The EB and the secretariat must be encouraged to follow a risk-based approach to reporting and budgeting, and the current work being undertaken by the secretariat should be presented to the EB for final decision-making thereon. A risk and mitigation plan must include appropriate indicators to be monitored and reported on as part of performance reporting against the approved CDM MAPs.

3. The uncertainty of the amount of income that the CDM will generate in the coming years means that careful projections and a clear plan are required in order to manage possible downsizing and fallback positions. While revenues from the current portfolio of CDM projects may not decrease significantly over the next two to three years, there are a number of uncertainties. Specifically, the impact of low CER prices on individual decisions to delay issuance or discontinue projects has to be monitored and assessed closely. Certainly, revenue forecasts beyond that time require careful monitoring of market developments.

4. The most critical gap in the system is the absence of a long-range budget planning and forecasting capacity. Given the uncertainty of the market going forward, this capacity needs to be developed and incorporated into the SDM structure on a permanent basis. It is recommended that the secretariat implement medium-term income and expenditure forecasting as a priority.

5. Given the uncertainty regarding how the CDM will develop in the short and medium terms, as well as the unpredictability of the CDM revenues, the accumulated CDM reserves will be essential in order to maintain a critical level of CDM operations and to adapt as required to the emerging needs of Parties and the marketplace. However, the accumulated reserves appear to have grown in excess of the requirements set by the CMP and, once the current investigation conducted by the secretariat is complete, there needs to be an active debate at the level of the CMP regarding the utilization of these reserves.

6. There could also be grounds for reviewing the rates set for registration fees and the share of proceeds once the CDM pipeline has stabilized and there is greater predictability with respect to future CDM revenues.

7. With respect to budget allocations, communications seems to be the one area for which a larger allocation is required, linked to an increased capacity for communications. This constitutes an essential component of a more proactive and outward-orientated strategy to position the CDM in relation to other market mechanisms, and to share with a much wider audience the knowledge built up through the experience gained with the CDM.

8. A review of the PSC and TCO should be undertaken by the EB and these costs should be compared with the overhead costs of similar organizations. In the light of the high turnover in the CDM funds and the lower rates of overheads in comparable organizations, such as the World Bank, a case can clearly be made for renegotiating the standard UN rates in the context of the CDM.