CLIMATE FINANCE INNOVATORS

SHORT STUDY

OPERATIONALIZING THE **SHARE OF PROCEEDS** FOR ARTICLE 6

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This short policy-oriented study seeks to contribute to the elaboration of the rulebook for carbon market instruments under Article 6 of the Paris Agreement. The tax on market mechanism activities (officially called "Share of Proceeds (SOP)") is a key topic and priority for the African Group of Negotiators and other alliances. The objective of the study is to enhance the base of evidence for this discussion by providing an analytical background on previous experiences with the SOP under the CDM and current technical options as an input to the political negotiations.

This study has been prepared in the context of the project **"Climate Finance Innovators – Linking carbon markets with climate finance in Africa".**

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KEY MESSAGES

EXPERIENCE WITH AN SOP UNDER THE KYOTO PROTOCOL

Under the Clean Development Mechanism (CDM), a **monetary** Share of Proceeds (SOP) for administrative purposes (in this study we use the term "administration SOP") was levied on credit issuance, whereas an **in-kind** SOP of 2% of issued carbon credits was allocated to the Adaptation Fund (AF) (in this study, we use the term "adaptation SOP").

Due to the unexpectedly positive development of the CDM activity pipeline, the administration SOP led to huge revenues (to date USD 356 million). Annual SOP revenues exceeded the actual administrative costs by up to a factor of three. The accumulated reserve that reached a maximum of USD 200 million in 2012 allowed to continue to operate the administrative structure of the CDM for almost a full decade after the crash of the CDM market and still stands at over USD 100 million. The lesson here is that a monetary SOP can become "sticky" and is not adjusted even when it became clear that the fee level was too high.

The in-kind SOP generated 38 million credits, whose sale brought revenues of USD 200 million, much less than the administration SOP, monetization guidelines, required the World Bank as trustee to maintain a reserve of credits when prices were high. Had all credits beyond that reserve been sold immediately, the revenue could have been increased by USD 40 million. The guidelines were adapted after the price crash but then it was too late. The key lesson is that in-kind SOP revenues crucially depend on the market price of credits and that accumulation of credit reserves is risky in periods of falling prices.

With the Doha Amendment, the adaptation SOP was extended to JI and international emissions trading in the second commitment period of the Kyoto Protocol, but as the amendment has not entered into force, this provision has not triggered any SOP. Given that the ratification threshold is close, a dedicated Doha Amendment ratification push could ensure the Amendment enters into force and provides a precedent for the Paris Agreement (PA).

STATUS OF NEGOTIATIONS REGARDING THE SOP IN ARTICLE 6

The PA defines an SOP in Article 6.6 to be generated through Art. 6.4 activities. It is silent regarding an SOP for cooperative approaches under Art. 6.2.

In Katowice, negotiations saw a stalemate between many developing country Parties pushing to extend the SOP to Art. 6.2 and industrialized countries unwilling to accept it. The Polish Presidency failed to resolve the controversy.

For Art. 6.4, Parties seem to agree on levying a monetary and an in-kind SOP, whereas for Art. 6.2, only an in-kind SOP seems to be considered. Most technical questions remain wide open, such as the relative size of monetary versus in-kind SOP, the level of the in-kind SOP and the point of taxation.

The destination of adaptation SOP revenues to the Adaptation Fund has already been settled through decisions taken by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) and the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) in Katowice in December 2018.

SOP FOR THE ARTICLE 6.4 MECHANISM

Levying both an administrative and an adaptation SOP at the point of credit issuance, as currently proposed in the Katowice Presidency draft text, is the most suitable option and reduces transaction costs.

The administrative and adaptation SOP should be levied as a mix of monetary fees and in-kind payments to have a balance between stable income and the option to benefit from higher market prices as well as limiting the burden on project developers. The CMA could then decide on a regular basis, e.g. (bi)annually, how much is needed to cover administrative expenses upon budgetary estimations and justifications from the Supervisory Board, while the rest would go to fund the Adaptation Fund.

A share of the administration SOP should be earmarked for administrative costs at the host country level. The level of the share depends on the actual tasks allocated to the host countries.

The CDM exempts project activities in Least Developed Countries (LDCs) from SOP payments and reduces the burden for micro- and small-scale activities. Yet, the Katowice draft texts currently do not foresee a differentiated treatment for any category of activities.

SOP FOR COOPERATIVE APPROACHES UNDER ARTICLE 6.2

Creating stable new sources of long-term finance for adaptation is the key argument for extending the SOP to cooperative approaches. Another important consideration is to ensure equal treatment of both Art. 6.2 and Art. 6.4, avoiding incentives to bypass the global mechanism.

The argument that a SOP on Art. 6.2 is not technically feasible due to the heterogeneous nature of cooperative approaches (linking of domestic emission trading schemes, bilateral baseline and credit systems) can be countered by introducing a monetary SOP on annual transferred net amounts of Internationally Transferred Mitigation Outcomes (ITMOs). This is feasible for any type of cooperative approach and even if ITMOs are denominated in metrics other than CO_2e. Therefore, the specific features of crediting mechanisms and ETS linking do not present a barrier for introducing an SOP.

The SOP should be charged to the acquiring Party just as a value-added tax is levied on the end-user of a good, considering the ability to pay as well as where the economic benefit accrues.

Even under Art. 6.2, an administrative SOP is relevant as central costs of cooperative approaches are not zero. Thus, a monetary SOP should be charged whose value would be set in the way proposed for the administrative SOP for Art. 6.4.

Host countries of activities under Art. 6.2 should be entitled to a share of administrative SOP to cover their administrative costs. If it is impossible to introduce an SOP for Art. 6.2, host countries need to consider the administrative costs in their negotiations with ITMO buyers.

1. CONTEXT

The Share of Proceeds (SOP) - an **international tax** on activities and/or **emission credits generated by international market mechanisms** for climate change mitigation - is not a new concept for climate negotiators. Prior to the Paris Agreement (PA), a provision for a SOP was defined in Art. 12.8 of the Kyoto Protocol (KP), which elaborated that an SOP from **activities under the Clean Development Mechanism** (CDM) is to be channelled toward both administrative expenses of the CDM (in this study we use the term "administration SOP") as well as toward helping developing countries meet the **costs of adapting to climate change** ("adaptation SOP"). The administration SOP is levied as monetary fee at issuance of CDM credits (CERs) while the adaptation SOP is levied in kind, in form of 2% of issued CERs that are then given to the Adaptation Fund (AF). CDM activities in LDCs are exempt from the SOP.

When it became evident that a new climate regime was needed to replace the KP and to increase ambition and mitigation efforts of countries, climate negotiations in Doha, Qatar, in 2012 led to an amendment to the KP by decision 1/CMP.8 (the so-called Doha Amendment) for the KP's second commitment period 2013-2020. In the Doha Amendment, Parties to the KP reaffirmed (section V, paras 20-22) that the adaptation SOP and its rate of 2% of CERs issued and **extended it to all Kyoto mechanisms**. The AF would receive 2% of the *first* international transfers of assigned amount units (AAUs), the issuance of emission reduction units (ERUs) for Joint Implementation projects, and the conversion to ERUs of AAUs or removal units (RMUs) from forestry projects held previously by Parties. It also reaffirmed the LDC exemption from SOPs. While as of May 2019, 128 Parties have deposited their instrument of acceptance, given the ratification threshold of 144 Parties, the Doha Amendment to the KP has not entered into force and this provision has not triggered any SOP. With a substantial number of African countries and LDCs not having done so, **African countries may consider a coordinated Doha amendment push** to close the remaining gap and have the Amendment enter into force before COP 25.

Building on these precedents, the Paris Agreement (PA) introduces an SOP in Art. 6.6:

The CMA shall ensure that a share of proceeds from activities under the mechanisms referred to in Art 6.4 is used to cover administrative expenses as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.

This means the SOP **will be levied through the Art. 6.4 mechanism**. However, several aspects related to the operationalization of the SOP are being debated, including

- **how to levy it**
- **how to convert credits into revenues**
- **when and how to utilize the proceeds, and**
- **what a reasonable tax rate would be (in terms of percentage rate).**

With Parties deciding at COP 24 in Katowice that the AF is to serve the PA (decisions 13/CMA.1 and 1/CMP.14), the operationalization of the SOP under Art. 6.4 has become more certain.

The situation is very different for the Art. 6.2 cooperative approaches for which the PA does not contain a similar provision but where the negotiation texts from Katowice introduce (voluntary) SOPs. The silence of the Paris text on the applicability of SOP for Art. 6.2 is being interpreted differently by negotiating Parties and continues to be a highly political debate. Some Parties, including the Umbrella Group and the EU, are opposed to an SOP for Art. 6.2 activities as they assert that this would represent a disincentive for cooperative approaches and would not be technically feasible for linking emissions trading schemes. Whether this argument is valid, will be discussed below. On the other hand, key Party alliances such as Africa, the Alliance of Small Island States (AOSIS), the Arab Group, LDCs and the Like-Minded Developing Countries (LMDCs) support the SOP for Art. 6.2. These Parties seek increased ambition with regard to resource mobilization for adaptation. As well, they look for balance and equity between Art. 6.2 and Art. 6.4, sharing the concern that the internationally supervised Art. 6.4 mechanism might be disadvantaged if the SOP would not be applied to "competing" bilateral cooperative approaches under Art. 6.2. They also raise an important element of the broader climate finance debate, arguing that SOP-based replenishments of the AF increase the predictability and long-term sustainability of the Fund compared to relying on ad-hoc donations by rich countries. Another argument is that Parties that are not sufficiently contributing to adaptation finance will now do it through paying the SOP for it when acquiring ITMOs. It is also not clear how stable and secure Art. 6.4 alone will emerge as a funding source for the AF, since this depends on the volume and value of available Art. 6.4. units, and levying the SOP on Art. 6.2 units.

The political nature of the SOP for Art. 6.2 debate is captured in the various draft texts – the SBSTA text, the L24 "lost text[1]" and the Presidency text – produced at COP 24 in Katowice (see Table 2 in the Annex). The "lost text" by the Presidency was an attempt to keep the SOP voluntary, but this attempt failed. Text on SOP was reintroduced based on the SBSTA text and heavily bracketed. In the end, there was no progression on this issue.

Most Parties would argue that the SOP is a political decision to be taken by negotiations. However, there are many technical implications of different taxation options that need to be understood. A full understanding of these might be useful to find compromise solutions in the best interest of all Parties.

On this basis, this paper firstly provides an overview of the SOP under the CDM and the experiences with fostering predictability and financial sustainability. The second section looks at the SOP under the Art. 6.4 mechanism and tackles questions on how to operationalize an Art. 6.4 SOP. Building on this, the final section addresses the operationalization of an SOP under Art. 6.2 cooperative approaches. For each section, we provide recommendations to be considered in the negotiation process.

[1] The text L.24 was deleted from the UNFCCC document repository after its publication on December 14, 2018.

2. BACKGROUND: THE CDM EXPERIENCE

The operationalization of the SOP under the CDM offers valuable lessons to be considered in the negotiations on the rulebook for Art. 6 of the Paris Agreement. In short, two different types of levies were chosen for administrative and adaptation purposes. The **adaptation SOP** has 2% of CERs issued forwarded to a holding account of the AF established inside the CDM registry. A dedicated trust fund operated by the World Bank monetizes the CERs to generate revenues for the AF. The **administration SOP** is levied as a monetary fee of USD 0.10 per CER for the first 15,000 tCO_2e, for which issuance is requested in a given calendar year, and USD 0.20 per CER for any amount in excess of 15,000 tCO_2e in that year. The CDM EB preferred cash payments, as it needed resources to kick-start the mechanism and could not wait until the market for selling CERs was established. The administration SOP is therefore levied as advance payment to be made at registration with the remainder due at issuance. Furthermore, the CDM EB wanted to avoid the costs associated with setting up a system to monetize the CERs (UNFCCC 2006)[2]. Activities in LDCs are exempt from SOP payments. Further exempt are activities with an expected issuance of less than 15,000 tCO_2e and for the first 10 activities in a country (UNFCCC 2017b).

2.1 REVENUES GENERATED FOR ADAPTATION PURPOSES UNDER THE CDM

One of the World Bank's core functions as trustee of the AF is to sell the CERs levied for the adaptation SOP. As of July 2018, over 38 million CERs have been transferred to the AF. The monetization of the CERs has only started in 2009 and generated revenues of about USD 200 million.

The revenues generated through the SOP have been smaller than expected. One reason lies in the monetization strategy of the trustee. In the initial years, the trustee opted to build up a reserve in CERs instead of selling them, also due to somewhat inflexible monetization guidelines of the trust fund (AF Board 2008) that included the requirement to hold a minimum stock of CERs. However, at the end of 2011 the CERs held reached four times the minimum stock volume of 1 million CER. Therefore, the crash in market prices in 2011 severely impacted the AF and the volume of missed revenues quickly reached over USD 50 million (about USD 40 million for the volume above the reserve level of 1 million CERs), calculated as the difference between the CER price valid when the CERs accrued and the price for which the CERs were sold afterwards. Over the entire period from 2009 to 2018, the trust fund monetized the CERs for USD 5.2 per CER on average.

As a result, the monetization of CERs only covers roughly a quarter of the cumulative resources of the AF. The Fund relies heavily on donations from donor countries, which have amounted to USD 636 million over the years (AF Trust Fund 2018). At COP 24 alone, several countries, including Germany, France, Italy, Sweden, Belgium, and New Zealand, and Ireland, announced

[2] Additionally, the CDM EB generates revenues through accreditation fees and fees for the approval of baseline and monitoring methodologies If a project was approved in conjunction with a new methodology, the fee for the approval of the methodology was counted as an advance payment of the share of proceeds.

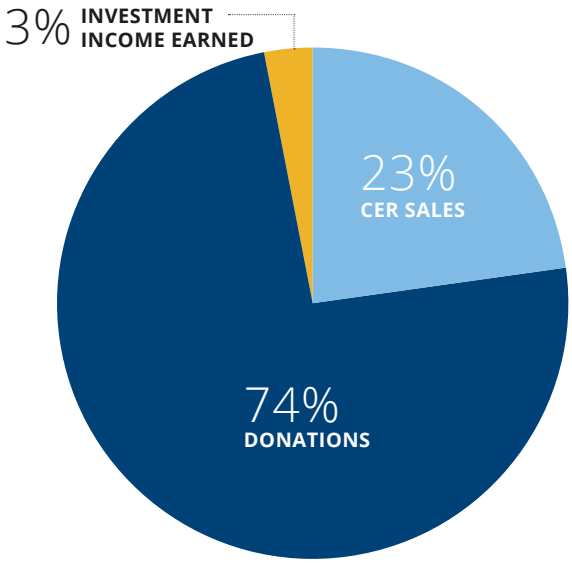

Figure 1: Cumulative resources of the Adaptation Fund in USD millions as of December 2018

Source: Adaptation Fund Trust Fund 2018

new pledges for the AF, totalling USD 129 million.

In reaction to the heavy losses incurred, the monetization guidelines of the trust fund were amended in 2012, with the restrictive rules abolished in order to be able to sell CERs when prices are high (Adaptation Fund Board 2012). Since 2015, the trustee has been able to achieve high prices on transactions of a smaller volume. However, the revenues generated are much lower than in the first years of the monetization program due to the much lower volumes. Over 10 million CERs remain unsold.

In sum, the in-kind taxation for adaptation purposes was beneficial for the AF when prices where high, but **revenues dwindled when market prices fell**. Even if the trustee is obtaining high prices in some transactions for the AF, the predictability of the revenue streams from CER sales is very low. The AF continues to be **dependent on donor contributions**.

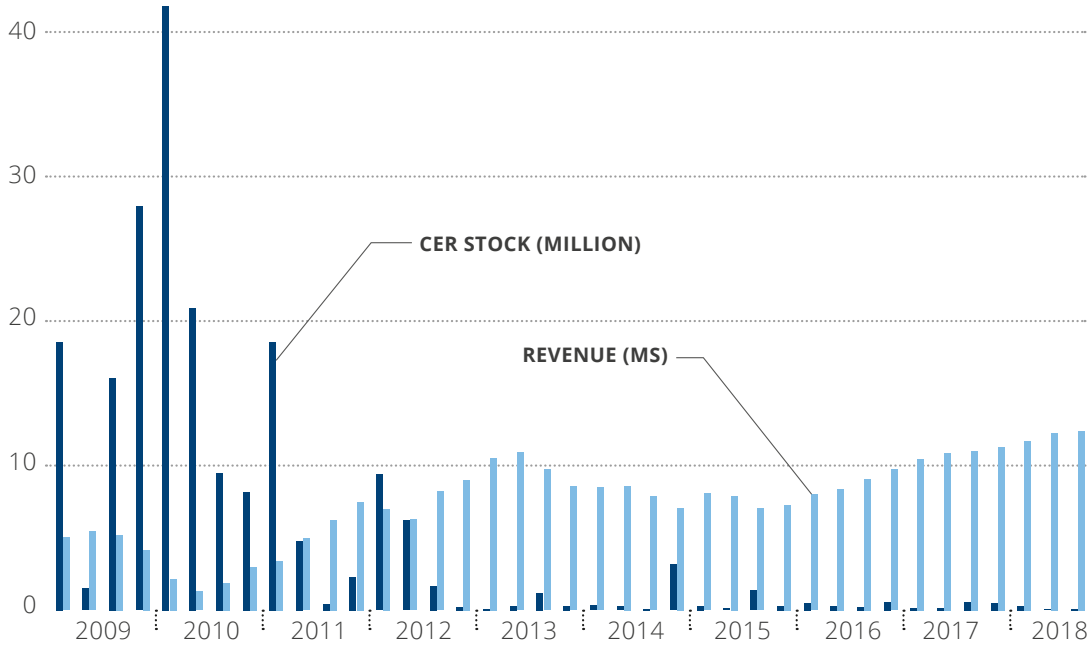

Figure 2: Revenues generated and CER stock accumulated in the AF trust fund, 2009-2018

Source: Adaptation Fund Trust Fund 2018

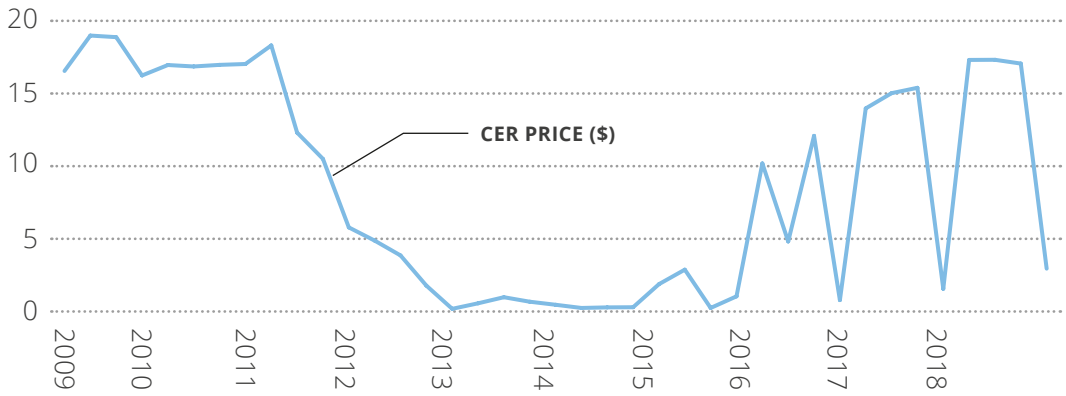

Figure 3: Prices obtained for monetization of CERs for AF, 2009-2018

Source: Adaptation Fund Trust Fund (2018)

2.2 REVENUES GENERATED FOR ADMINISTRATIVE PURPOSES UNDER THE CDM

The situation is very different for the CDM EB, which benefited from a more stable source of income through **monetary taxation for registration and issuance**. Even though revenues declined when CDM activities became less profitable, the EB was able to accumulate an important reserve in the "gold rush period" that it can still rely on today. The SOP was the largest contributor to the revenues of the CDM EB, even if voluntary contributions did play a role in the early implementation period. Accreditation and methodology related fees levied additionally to the administration SOP only played a minor role.

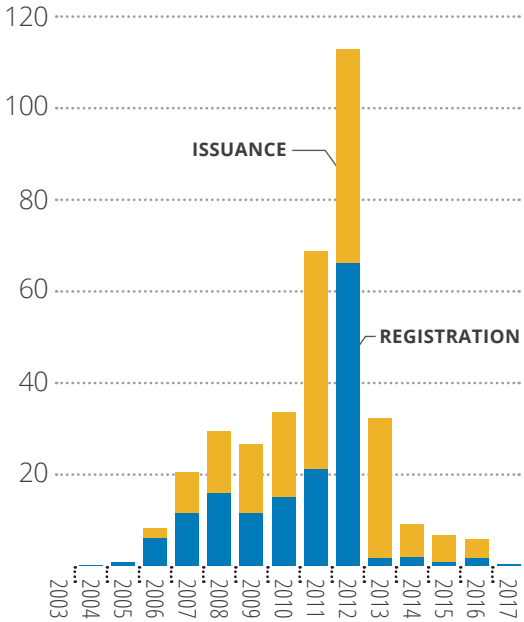

Figure 4: CDM EB income through administrative SOP in USD million, 2003-2017

Source: authors' elaboration based on annual reports of the CDM EB to the CMP, 2002-2018

The inflows to the CDM trust fund rose considerably beyond expectations due to significant demand by private and public entities. The secretariat had estimated 100 requests for project registration/year, but the actual number quickly exceeded 500. Also, more projects than initially expected were large industrial gas projects, generating millions of CERs and therefore related fees. By June 2012, the CDM trust fund had an **accumulated surplus of USD 131.2 million** (without a reserve the Secretariat established), three times higher than the annual expenditure financed out of the fund at that time. As resources generated were not allowed to cross-finance other expenses of the secretariat, the **volume of CDM staff and**

expenditures rose significantly, probably beyond the level that was really necessary (Michaelowa and Michaelowa 2017). Interestingly, the level of monetary SOP was never adjusted despite the accumulation of surplus.

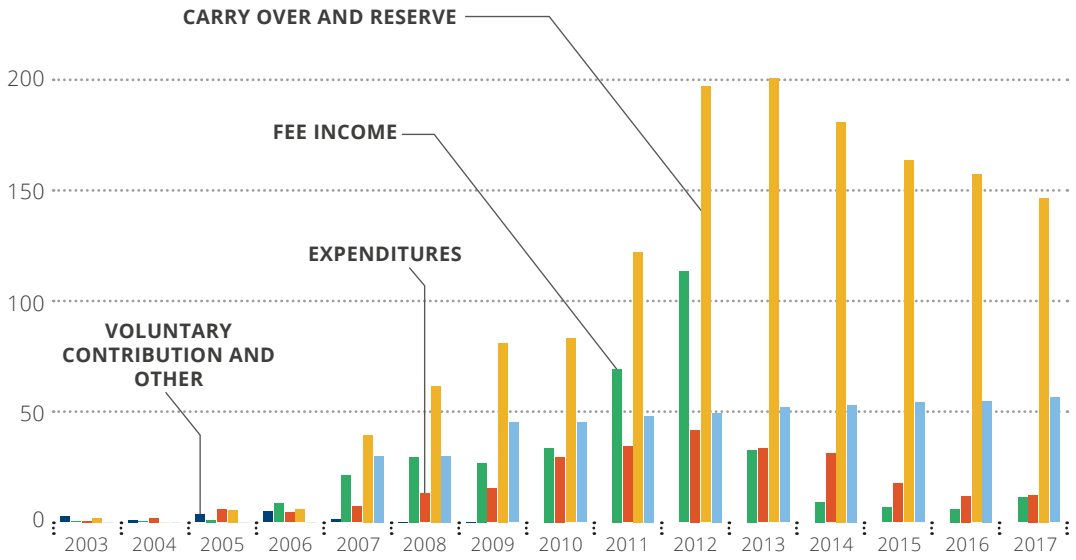

Figure 5: CDM EB income, expenditures and accumulated surplus in USD million, 2003-2017

Source: Authors' elaboration based on annual reports of the CDM EB to the CMP, 2002-2018

With the crash in market prices, the CDM lost its attractiveness and incomes through fees fell massively. An increasing number of project developers did not request forwarding of issued CERs to their accounts anymore and the amount of uncollected SOP fees increased. Therefore, the **CDM EB tightened the rules on the levy in December 2017** to levy the SOP before an issuance is requested (UNFCCC 2017a)[3].

This attracted criticism from the private sector, as it was seen as penalising project developers and smaller companies (Allcott 2018). In times of diminishing returns of investment in CDM activities, the **financial burden of paying the SOP increased**. In particular, the need to pay the SOP in advance before monetizing CERs on the market can be a risk for smaller companies. In addition, project developers face the risk of financial penalties if they withdraw requests for issuance or if their issuance is rejected. Developers stand to lose up to USD 30,000 for each issuance that is withdrawn after it has been either published or rejected.

[3] At its 96th meeting the CDM EB decided that starting January 2018, project participants who have approved requests for issuance with pending payments of their SOP for administration may opt to pay the SOP in up to three instalments per issuance. The instalment should be at least USD 1500 unless it is the last instalment for the issuance, in which case it should be at least USD 500. CERs should only be released for forwarding/voluntary cancellation in proportion to the SOP paid. For requests for issuance submitted after 1 June 2018, the SOP for administration shall be payable in full prior to the commencement of a completeness check for a request for issuance.

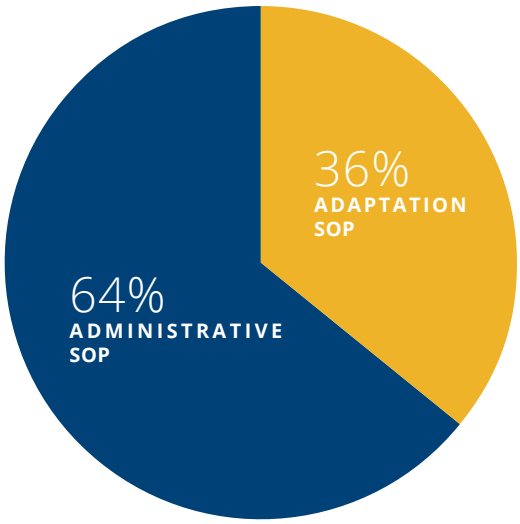

Figure 6: Accumulated revenues for administrative and adaptation purposes through share of proceeds under the CDM, 2003-2017

Source: Authors based on Adaptation Fund Trust Fund (2018) and the annual reports of the CDM EB to the CMP, 2002-2018

2.3 GENERAL LESSONS FROM THE SOP UNDER THE CDM

The **monetary administration SOP became a much higher source of income for the UNFCCC Secretariat than expected**. Despite high surpluses being accumulated, tax rates were not changed. Thus, under Art. 6, procedures should be built in to **revisit administration SOP rates regularly**.

On the other hand, the **in-kind adaptation SOP** failed to become the key source of revenues for the AF as which it had been envisaged. This was due to the onset of the CER price crash before the bulk of the CER inflow occurred. Until today, its total monetary value reaches only about a third of the overall value of the SOP (see Figure 6).

When designing the adaptation SOP under the Art. 6 mechanisms, two different objectives can be pursued: (1) A monetary fee would serve the objective of delivering a more predictable and stable source of income; (2) An in-kind contribution in credits would lead to higher revenues in case of market price increases. A key lesson from the CDM is that the second objective is associated with a significant risk, as witnessed by the AF.

3. SOP FOR THE ARTICLE 6.4 MECHANISM

As the Paris Agreement specifically mentions the applicability of share of proceeds for administrative and adaptation purposes in the context of the Art. 6.4 mechanism, it is not a contentious issue in the negotiations per se. However, the overall level of taxation is. Furthermore, there are some technical details that require further thinking.

Both the SBSTA and the Presidency texts converge on **levying an administration SOP** in the form of **monetary fees** in the same manner as under the CDM at registration and issuance (the "lost text" is not relevant, as it did not introduce specific suggestions). The level remains undetermined; while in the SBSTA text the authority to determine this was the Supervisory Board, in the Presidency text it is now the CMA.

On the operationalization of the **adaptation SOP**, all options in the text seem to refer to an **in-kind contribution**. More options have been discussed in the negotiations regarding the **point of collection**. The SBSTA-text contains the following ones:

- **Collecting SOP at the point of issuance:** here, the project developer would pay the SOP. Furthermore, the point of collection would be the same for the administration and the adaptation SOP. It is the easiest option and the only one retained in the Presidency text.

- **Collecting SOP at transfer/first forwarding:** here, the project developer would only pay the adaptation SOP at the point of selling the credits or retiring the credits by forwarding it to the voluntary cancellation account. This limits the financial risk for the project developer and the buyer can be charged with the associated costs. The inherent risk of this option is that in times of low demand, no or only limited transfer/forwarding would occur and no adaptation SOP would be collected.

- **Collecting the SOP at every transfer/increasing SOP at every subsequent transfer:** beyond the risks presented for levying SOP at the point of transfer, this option would increase the financial burden in particular for traders and could have negative effects on the fungibility of the A6.4ERs on the market. It would also increase the complexities in administrating the adaptation SOP. If SOP was to be collected at every transfer, this would also apply for transfers between national registries. Governments would then be responsible for collecting the SOP and forwarding it to the AF account in the UNFCCC registry.

Differentiating between a monetary fee for administration SOP and an in-kind contribution for the AF would represent a simple continuity from the CDM world with the same advantages and disadvantages as discussed above. **An alternative** would be to levy **both administration and adaptation SOP** as a **mix of monetary fees and in-kind payments** in order to **achieve a balance between stable income, option to benefit from higher market prices and limiting the burden on project developers**. The Supervisory Body or the CMA could then annually decide how much is needed to cover administrative expenses, while the rest could go toward funding the AF. The AF would not be as dependent on the market prices for A6.4ERs as it has been on the CER price, while still being able to fully benefit from positive market developments. Further safeguards and robust guidance could be needed to ensure a just repartition of revenues between a functioning administration and adaptation finance and avoid that the Supervisory Body overestimates its administrative budget needs.

The **level of taxation** will most likely depend on the agreement to be found on the applicability of SOP in Art. 6.2 transactions. If the SOP was to be extended to all cooperative approaches, an adaptation tax of 5% could be seen as too high for different activity types eligible under Art. 6.2 cooperative approaches by those parties that have reservations against the approach. A lower level could be agreed in order to establish a level-playing field for both market-based forms of voluntary cooperation under Art. 6.2 and Art. 6.4.

When deciding the SOP level, negotiators should also consider that the SOP will be paid by **activity developers** in the current status of both texts. The Art. 6.4 mechanism as a UNFCCC-governed mechanism is more likely to be used by developing countries as it limits the administrative and capacity burden on government agencies. **A higher SOP is therefore likely to have a disproportionately large impact on activity developers in developing**

countries, in particular if no SOP will apply to Art. 6.2 transfers. An increasing SOP at every time of transfer, as mentioned in one of the options in the SBSTA text, is unlikely to be agreeable in the negotiations, also due to the complexities in implementation. It would furthermore curtail the fungibility of A6.4ERs and its attractiveness of the Art. 6.4 mechanism in the absence of a harmonized solution. Essentially, it would prevent the emergence of a liquid secondary market.

4. SOP FOR THE ARTICLE 6.2 COOPERATIVE APPROACHES

With varying Party interests and stakes in the matter, the SOP under Art. 6.2 is highly contentious on the political level. Due to SOP being levied on all Kyoto mechanisms in the Doha Amendment, the concept of an SOP for Art. 6.2 became embedded in the various drafts of the Art. 6.2 guidance in Katowice. Politically, the levy of a SOP on cooperative approaches was one of the breaking points in the Art. 6 negotiations. In the "lost text", the Polish Presidency sought to break the stalemate through the introduction of a voluntary SOP (the SOP "could" be levied) and by leaving all design choices open to the participating Parties. This attempt failed and the final presidency text contains bracketed provisions for a mandatory SOP. While several Parties expressed the view that levying a SOP on cooperative approaches would not be feasible, the technical discussion is still in its infancy. By exploring the different options, this paper seeks to provide a better foundation to the negotiations.

The main options captured in the Katowice texts include:

- **Cooperative approaches [shall] [should] deliver a SOP to meet the costs of adaptation**
- **The SOP to be collected for cooperative approaches that are baseline and crediting / similar to Art. 6.4 / crediting approaches implemented by parties / all cooperative approaches/ all acquisition of ITMOs**
- **The SOP to be set and levied at X percent / 5 percent / an increasing percent / a diminishing percent of the amount of ITMOs / increase with each subsequent transfer / be consistent with the SOP for the Art. 6.4 mechanism**
- **The SOP to be collected by the issuing / acquiring Party / sent to the Adaptation Fund**

Detailed provisions as well as the progression of options from the SBSTA to the Polish presidency texts are captured in Annex 2.

Here we look into the options for levying a SOP under Art. 6.2 from a technical perspective and comment on the text options from the vantage point of a smooth functioning of cooperative approaches and feasibility of the levy. For the purpose of this analysis, we only focus on those aspects that would likely be different from a SOP under Art. 6.4 and assume design choices (i.e. percentage rate etc.) as outlined above, to similarly apply. From the list of issues under negotiations, we focus on the **purpose of the SOP** (only adaptation), **how to collect the SOP** for different types of cooperative approaches and **which Party should pay** the levy.

Table 1: Overview of administrative costs for Art. 6.2

ITEM	REFERENCE	DESCRIPTION
(Central) Registry for tracking ITMOs	Presidency text, Sec. III. Annex, para. X. Infrastructure	A registry is accessible for each participating Party for the tracking of ITMO information. The registries perform functions outlined in IV. Tracking ITMOs and has the necessary accounts. The secretariat is also to implement an international or central registry for Parties that do not have a registry or access to one.
Art. 6 database	Presidency text, Sec. III. Annex, para. X. Infrastructure	The Art. 6 database is implemented by the secretariat and enables the recording and compilation of information regarding corresponding adjustments.
Art. 6 Technical Expert Review (A6 TER)	Presidency text, Sec. III. Annex, para. II. Governance And VII. Review	The Art. 6 technical expert review is responsible for a number of aspects including: • Reviewing the application of guidance by participating Parties and recommendations for the technical expert review process under Art. 13.11. • Make recommendations on how Parties can improve consistency with guidance • Review of the initial report provided by Parties when communicating or updating their NDC (VII.A. Initial report) Review information reported in section VII.B. on regular information and information recorded on corresponding adjustments (IX).
The Secretariat	Presidency text, Sec. III. Annex, para. II. Governance And IX. Recording of corresponding adjustments	The secretariat is in charge of carrying out related activities set out in the Art. 6.2 guidance. The secretariat: • Periodically prepares a compilation and synthesis of the work and outcomes from the A6 TER • Record information in initial reports in the Art. 6 database • Record information on corresponding adjustments in Art. 6 database Compile information in Art. 6 database and perform: consistency checks, and notify inconsistencies

First, it is noteworthy that the SOP under Art. 6.2 has thus far only been discussed with respect to **adaptation** as the attention of Parties has been focused on this aspect. The reason may be the perception of Parties that the Art. 6.2 cooperative approaches – unlike the CDM and the Art. 6.4 mechanism – have a bottom-up structure without central oversight and therefore no administrative burden. However, while the administrative costs for Art. 6.2 may be less than the expenses generated by the administration of a centralized market mechanism, they are not zero. In fact, as the current text stands, Art. 6.2 includes several centralized costs for cooperative approaches. These are outlined in more detail below:

The various aspects presented above indicate that even under cooperative approaches, there are a number of **central functions** such as reporting and reviewing information related to transactions and corresponding adjustments that would need to be funded. Given the relevant role of comparability and transparency in the PA, it is reasonable to expect a certain level of expenses dedicated to ensuring them. Looking at the central functions described above and drawing on the experiences with similar functions under the Kyoto Protocol would enable a rough estimation regarding the level of costs to be expected.

Related to this are also **potential host country expenses** that could arise or increase, when countries engage in a cooperative approach. This is important to take into consideration for developing countries and especially LDCs. Those host countries that do not have the necessary administrative infrastructures available, but want to engage in Art. 6.2, will need to enhance and build up their capacities related to issuing credits, accounting and recording data, among others. This issue could be addressed by earmarking a share of the administration SOP. In any case it is important to identify adequate funding sources to ensure sufficient administrative capacity in all countries to participate in cooperative approaches.

Second, we consider **how to collect the SOP for different types of cooperative approaches**. They are generally identified as being either baseline and crediting type of approaches and similar to Art. 6.4 or linking ETS. Other types may exist but are less in focus.

Linking ETS results in a large amount of transactions that need to be tracked and recorded. The abundance of transactions could make the process of applying an SOP complex, if the proceeds were to be levied at each individual transfer. An alternative and more straightforward option is to **base the SOP levy on the net annual flow** of ITMOs between the cooperating countries. Pursuant to paragraph VII.B.26.b of the Presidency's textual proposal on Art. 6.2, Parties will need to annually submit a report on the cumulative ITMOs transferred. Moreover, pursuant to Art. 77(d) of Decision 18/CMA.1 (modalities, procedures and guidelines for the transparency framework), Parties participating in cooperative approaches need to provide in their biennial transparency reports an emissions balance reflecting the level of emissions covered by Parties' NDCs adjusted on the basis of corresponding adjustments. The SOP therefore, could easily be integrated into this reporting and accounting process. For the bilateral crediting approaches, the transactional set-up is less complex and therefore could benefit from levying an SOP per issued or transferred credit. Whether the SOP should be collected at first transfer – as outlined in the Doha Amendment – may however be difficult as the definition of 'first transfer' remains unclear.

The SOP can either be levied as a monetary fee or at a percentage rate. While the general perception of the SOP is that it is based on a percentage rate, this does not have to be the case. Given the variety of approaches, very different market prices, confidentiality of prices and the lack of a common market for ITMOs, a percentage rate does not seem sensible. The SOP could instead be levied using a monetary levy for each ITMO transferred, (e.g. USD 0.10/ tCO_2e or ITMO). This concept has already been tested and proven to work for the administrative SOP under the CDM. It could be applied to both the linking of ETS as well as bilateral crediting approaches, and even be used in cases where ITMOs are denominated in metrics other than CO_2e.

The final question is **whether the transferring or acquiring Party should be taxed**. While in principle the question could also be left to the cooperating Parties to decide, it does seem more productive to have a clear ruling at UN level to avoid lengthy negotiations. While economic theory and particularly the discipline of public finance knows various principles for allocating taxes, we consider that the most relevant aspects to guide the decision in this case, are the ability to pay as well as where the economic benefit accrues. This leads us to recommend that the **SOP should be charged to the acquiring Party**, just as a value-added tax is levied on the end-user of a good.

Taxing the acquiring party is intuitive in the case of bilateral crediting schemes between developed and developing countries, where the acquiring party tends to be the one with greater ability to pay. In the case of ETS linking, however, it is not necessarily predetermined which of the countries will emerge as net importer of allowances and become the acquiring party of ITMOs. Also, this position may shift over time. It can be argued that the acquiring party has the clearer economic benefit as it achieves its NDC target at lower cost through the import of ITMOs. The transferring party, on the other hand, benefits from the sale of goods and an influx of finance. However, the economic gain is less clear-cut because in order to do so, it must overachieve its own environmental target to serve both its NDC and be able to transfer emission reductions.

As ITMO balances are accounted on the country level, the SOP would be payable by governments. The question therefore arises how governments could pay the SOP if the economic benefits are reaped by the emitting installations in the form of cheaper allowances, as would be the case under an ETS linking transaction. For ETS linking, the SOP could be funded from auctioning proceeds. For baseline and crediting schemes, an SOP fee could simply be added to the purchasing price for ITMOs. How governments would collect the SOP back from the emitters would, however, have to be resolved at the level of individual cooperative approaches and is not subject to UN regulations.

5. CONCLUSION

This policy-oriented study has addressed the technical questions around the introduction of a tax on market mechanism activities ("share of proceeds", SOP) on both Art. 6.2 and 6.4 and formulated practical solutions for the concerns brought up in the negotiations. The CDM offers vital lessons on which recommendations can be based. For example, the administration SOP levied in cash generated huge surpluses due to a much larger than expected level of activities, but policymakers were unable to adjust the administration SOP level downwards. The adaptation SOP levied in kind generated much less revenues than expected because the trustee did not sell credits when the prices were high, and the bulk of credits accrued when the prices had already fallen to negligible levels. This leads us to recommend a mix of a monetary and in-kind SOP, and a regular decision on adjustment of the administration SOP level. We also recommend allocating a share of the SOP to the host countries to cover administrative costs at their level. Exemptions for LDCs should continue.

Some issues are, however, of political nature or require further analysis. In contrast to repeated statements by the opponents of an SOP on Art. 6.2, there are no technical reasons that would prevent levying an SOP on Art. 6.2. Among the issues requiring further reflection is the level of the SOP to be imposed, given various scenarios for market size, ITMO and A6.4ER prices, estimation of resource needs and considering at what level detrimental effects to credit volume would emerge. The optimal level of the SOP further depends on whether it is levied exclusively on Art 6.4 or on Art 6.4 and Art 6.2 collectively, in which case a lower SOP level would generate the same level of revenues. Finally, and most crucially, it has to be understood where the political compromise can be found between Parties rejecting an SOP for Art 6.2 outright and those advocating for it. First, a rapid entry into force of the Doha Amendment would give a boost to those advocating a coverage of all market mechanisms by the SOP. Furthermore, the nuances of the design may come into play, such as reducing the number of transactions on which the SOP is levied, e.g. by levying the SOP only on the annual balance of ITMOs, granting exceptions for certain types of cooperative approaches, e.g. such as linking ETS, accepting a lower level SOP for Art. 6.2 or considering whether or under which conditions a voluntary SOP on Art. 6.2 would be acceptable. While COP 25 must focus on resolving the political impasse, the details of the operationalization could be left to the Art. 6 work programme.

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ANNEXES

ANNEX 1: SUBMISSIONS ON SOP LEVIED ON ARTICLE 6.2

AOSIS inputs to APA agenda items (Dec. 2018): We also believe a 5% share of proceeds for adaptation, applied under Art.s 6.2 and 6.4 will help increase adaptation. We see these two elements as valuable tools that will support both the credibility and utility of Art. 6.

AGN submission on Art. 6.2 guidance (2017): Share of Proceeds: Shall apply to both Art.s 6.2 and 6.4 and fund adaptation and sustainable development for developing country Parties of the Paris Agreement.

AOSIS submission on Art. 6.2 guidance (2017): In addition, the achievement of an overall mitigation in global emissions and the delivery of a share of proceeds for adaptation are features of the 6.4 mechanism, but they could also be features of cooperative approaches under Art. 6.2, so that Art. 6 as a whole contributes to the mitigation and adaptation goals of the Paris Agreement. The application of these Art. 6.4 elements under Art. 6.2 would avoid disadvantaging the role of Art. 6.4 and leverage the utility of these provisions.

Arab Group submission on Art. 6.2 guidance (2017): Share of proceeds: Shall apply to both Art.s 6.2 and 6.4 and fund adaptation and sustainable development for developing country Parties of the Paris Agreement. These shares of proceeds shall be allocated to the Adaptation Fund.

LDC submission on Art. 6.2 guidance (2017): 19. Share of Proceeds: All ITMOs transactions should be subject to a "share of proceeds" arrangement whereby a certain percentage of traded units would be reserved and paid into a centralised account maintained by the Central Oversight Mechanism to be used for funding adaptation activities. The centralized account would be a holding account for transfer to the Adaptation Fund, originally established under the Kyoto Protocol and through a decision authorised to operate under the Paris Agreement.

LMDC submission on Art. 6.2 guidance (2017): Share of proceeds should also be applied to the internationally transferred mitigation outcomes (ITMOs) in Art. 6.2 where it would be equally relevant and effective. Extending 4 the share of proceeds provision to Art. 6.2 would also ensure that activities under Art. 6.4 would not be unduly disadvantaged.

ANNEX 2: SYNOPSIS OF NEGOTIATION TEXTS

Table 2: Evolution of negotiation text on SOP under Art. 6.2

SBSTA TEXT, 08.12.2018	"LOST TEXT", 14.12.2018	PRESIDENCY TEXT, 14.12.2018
Option A 54. Cooperative approaches [shall][should] deliver a share of proceeds to be used to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation. 55. The share of proceeds [shall][should] be collected in respect of: Option A1 (a) cooperative approaches that are baseline and crediting approaches that are similar to mitigation activities under the mechanism established by Art. 6 paragraph 4; Option A2 (b) crediting approaches implemented by Parties. Option A3 (c) all cooperative approaches; Option A4 (d) all acquisition of ITMOs {end of Option A4} 56. The share of proceeds [shall][should] be set at and levied at {potential list below}: Option A1 (a) X per cent/5 per cent/an increasing per cent/a diminishing per cent of the amount of ITMOs transferred/used towards achievement of an NDC; Option A2 (b) X percent at first transfer, increasing by Y percent at each subsequent transfer; Option A3 (c) Consistent with the share of proceeds pursuant to Art. 6, paragraph 6, for the mechanism established by Art. 6, paragraph 4. {end of Option A3} 57. The share of proceeds [shall][should] be {potential list below}: (a) Collected by the creating/issuing Party at the first transfer of ITMOs and/or collected by a Party using ITMOs towards achievement of its NDC; (b) Transferred by the creating/issuing Party to the Adaptation Fund; (c) Collected by the acquiring Party at each ITMO transfer and transferred to the Adaptation Fund. Option B {no text required}	*Text moved to decision section* 5. Acknowledges the consideration of the SBSTA in relation to a share of proceeds for cooperative approaches that are baseline and crediting approaches similar to mitigation activities under the mechanism established by Art. 6, paragraph 4; crediting approaches implemented by Parties; all cooperative approaches; or all acquisitions of internationally transferred mitigation outcomes; (a) The share of proceeds could be levied at a specific percentage of five per cent, an increasing percentage, a diminishing percentage of the amount of internationally transferred mitigation outcomes transferred or used towards a nationally determined contribution, a specific percentage at first transfer, increasing by a specific percentage at each subsequent transfer, or consistent with the share of proceeds pursuant to Art. 6, paragraph 6, for the mechanism established by Art. 6, paragraph 4; (b) The share of proceeds could be collected by the creating or issuing Party at the first transfer of internationally transferred mitigation outcomes; collected by a Party using internationally transferred mitigation outcomes towards its nationally determined contribution; transferred by the creating or issuing Party to the Adaptation Fund; or collected by the acquiring Party at the transfer of each internationally transferred mitigation outcomes transfer and transferred to the Adaptation Fund;	*Text moved back into guidance* 39. Cooperative approaches [shall][should] deliver a share of proceeds to be used to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation. 40. The share of proceeds [shall][should] be collected in respect of [cooperative approaches that are baseline and crediting approaches that are similar to mitigation activities under the mechanism established by Art. 6 paragraph 4] [crediting approaches implemented by Parties] [all cooperative approaches] [all acquisition of ITMOs]. 41. The share of proceeds [shall][should] be set at and levied at [X per cent / 5 per cent / an increasing per cent / a diminishing per cent of the amount of ITMOs transferred / used towards achievement of an NDC] [X percent at first transfer, increasing by Y percent at each subsequent transfer] [consistent with the share of proceeds pursuant to Art. 6, paragraph 6, for the mechanism established by Art. 6, paragraph 4]. 42. The share of proceeds [shall][should] be [collected by the creating/issuing Party at the first transfer of ITMOs and/or collected by a Party using ITMOs towards achievement of its NDC] [transferred by the creating/issuing Party to the Adaptation Fund] [collected by the acquiring Party at each ITMO transfer and transferred to the Adaptation Fund].

Table 3: Evolution of the negotiation texts on the share of proceeds for the Art. 6.4 mechanism

SBSTA TEXT, 08.12.2018	"LOST TEXT", 14.12.2018	PRESIDENCY TEXT, 14.12.2018
40. The activity participants shall pay a share of proceeds to cover administrative expenses for registration of the activity when submitting a request for registration, at the level determined by the Supervisory Body.	41. The activity participants shall pay a share of proceeds to cover administrative expenses for registering the activity when submitting a request for registration, at the level determined by the CMA	42. The activity participants shall pay a share of proceeds to cover administrative expenses for registering the activity when submitting a request for registration, at the level determined by the CMA.
45. The activity participants shall pay a share of proceeds to cover administrative expenses for issuance of A6.4ERs when submitting a request for issuance of A6.4ERs at the level of USD X per A6.4ER to be issued.	46. The activity participants shall pay a share of proceeds to cover the administrative expenses for issuing A6.4ERs when submitting a request for issuance of A6.4ERs at the level determined by the CMA.	47. The activity participants shall pay a share of proceeds to cover the administrative expenses for issuing A6.4ERs when submitting a request for issuance of A6.4ERs at the level determined by the CMA.
56. The share of proceeds from an Art. 6, paragraph 4 activity that is levied to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation shall be delivered to [the Adaptation Fund][the relevant mechanism registry account].	56. The share of proceeds from an Art. 6, paragraph 4, activity that is levied to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation shall be delivered to the Adaptation Fund.	58. The share of proceeds from an Art. 6, paragraph 4, activity that is levied to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation shall be delivered to the Adaptation Fund.
57. The share of proceeds for adaptation shall be set and levied at: Option A (a) [X/5] per cent at issuance; Option B (b) [X5] per cent at [forwarding][first transfer]; Option C (c) [X/5] per cent at [forwarding][first transfer], increasing by Y per cent at each subsequent transfer.	57. The share of proceeds for adaptation shall be set and levied at X per cent at issuance.	59. The share of proceeds for adaptation shall be set and levied at [five] per cent at issuance.

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