Framework Convention on Climate Change

Subsidiary Body for Scientific and Technological Advice 18 October 2023

Technical paper, without formal status, on matters relating to the guidance on cooperative approaches referred to in Article 6, paragraph 2

Technical paper, without formal status, by the secretariat

Contents

Abbreviations and acronyms

API	Application programming interface
AERs	Authorized emission reductions from Article 6 paragraph 4 mechanism
AEF	agreed electronic format
BTR	biennial transparency reports
CARP	centralized accounting and reporting platform
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
ERP	enterprise resource planning
GHG	greenhouse gas
ID	identifier
ITMO	internationally transferred mitigation outcome
MCU	Mitigation contribution unit
MO	mitigation outcomes
NDC	nationally determined contribution
OIMP	other international mitigation purposes
RSA	registry system administrator
SBSTA	Subsidiary Body for Scientific and Technological Advice
t CO_2 eq	tonne of CO_2 equivalent
Article 6 TER	Article 6 technical expert review
Article 6 TERT	Article 6 technical expert review team
UNFCCC	United Nations Framework Convention on Climate Change

I. Introduction

A. Background

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its fifty-eighth session (SBSTA 58), requested the secretariat to prepare, with a view to facilitating the understanding of the relevant issues but without prejudging possible outcomes, and considering the relevant work undertaken in the first intersessional period of 2023 and views expressed by Parties[1] at the session, a technical paper without formal status, on:

(a) The process of authorization pursuant to decision 2/CMA.3, annex, paragraphs 2, 18(g) and 21(c), notably the scope of changes to authorization of internationally transferred mitigation outcomes towards use(s), and the process for managing them and for authorization of entities and cooperative approaches, with a view to ensuring transparency and consistency;

(b) The draft version of the agreed electronic format (AEF), including concepts and options for the structure of the agreed electronic format and proposals for common nomenclatures for Parties to test and support capacity-building, as well as options for the tables for submitting annual information as part of the regular information, as referred to in decision 2/CMA.3, annex, paragraph 23(j);

(c) The mandates in paragraph 17(g–j) of decision 6/CMA.4, taking into account any submissions from Parties on the technical specifications and estimated costs for the international registry referred to in paragraph 33(c) of that decision;

(d) Analysis and sequencing of the steps in Article 6, paragraph 2, reporting and review processes, including as referred to in paragraph 17(a) of decision 6/CMA.4;

(e) Elements and processes pertaining to inconsistencies identified in reviews and in data on internationally transferred mitigation outcomes in the Article 6 database as referred to in decision 6/CMA4, paragraphs 16(a)(iii) and 17(f).[2]

2. The technical paper is to include analysis of the above elements, including any linkages between them, related to the mandates contained in decision 6/CMA.4 and to be prepared on the basis of any corresponding provisions of the guidance on cooperative approaches and relevant decisions of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), and using flowcharts and other visual representations.

3. This technical paper has been prepared for consideration at SBSTA 59, to be held in November–December 2023, as well as in the intersessional period.

4. The period for developing this technical paper was not sufficient for the secretariat to consider submissions that may be made by Parties in response to the call for submissions at SBSTA 58. The technical paper will serve as input to the work of the SBSTA, parallel to Parties' submissions.

B. Structure and approach

5. The technical analysis in section II of this paper is structured according to the SBSTA 58 conclusions. Each of the five topics as per paragraph 1 above is allocated a section (sub-sections A to E). Each sub-section discusses the key issues and possible solutions, considering linkages between the topics and with Article 6 paragraph 4 elements, if any.

[1] Parties to the Paris Agreement

[2] FCCC/SBSTA/2023/L.6

II. Technical analysis

A. Authorization

1. Authorization of cooperative approaches

(a) Process

6. The unique identification of the cooperative approach is issued by the centralized accounting and reporting platform (CARP) on request from any Party, forming the common nomenclature of cooperative approaches in the CARP. The identification of the cooperative approach that an internationally transferred mitigation outcome (ITMO) belongs to will become part of the unique identifier for every ITMO.

7. The identifier of the cooperative approach should be human-readable and easy to refer to. It may either take the form of an integer number, issued consecutively by the CARP, and prefixed with "CA" or the form of a short alphanumeric code, proposed by the initiating Party and cleared by the secretariat after reviewing it for duplication and readability.[3]

8. The strength of **numbering** cooperative approaches is the simplicity of implementation and the possibility to maintain a fixed length of the cooperative approach identifier by padding the number with zeroes to three or four[4] positions. The potential downside of this identification standard is that with a sufficient number of cooperative approaches in use, the ITMO identifiers alone will become less readable and not immediately indicate to the user to which cooperative approach the ITMOs belong. This can be mitigated by always displaying the name and link to full information about the cooperative approach next to the number in registry and reporting systems. The strength identifying cooperative approaches with **alphanumeric codes** is that even with a significant number of cooperative approaches in use, it would be manageable for the user to memorize the codes of cooperative approaches they are interested in and immediately recognize ITMOs belonging to these cooperative approaches by their unique identifier. The downside is that this option is more complex to administer and that, with time, the meaning of the code may cease to reflect the nature of cooperation between Parties. Another challenge with alphanumeric codes is that in order to enable fixed-width ITMO identifiers, they will need to consist of the same number of characters; padding human-readable, meaningful strings is less easy, but some industries[5] have come up with ways to do it.

9. Based on the assessment of advantages and disadvantages of the two approaches to identification, the secretariat intends to implement numbering of cooperative approaches.

10. Some cooperative approaches may include more than two participating Parties and/or be open to new Parties to join, as long as the required parameters and agreement to the modalities of the cooperative approach are in place. For such approaches, it would be practical to introduce simple procedures for the acceptance of new Parties into a cooperative approach based on concurrence of all participating Parties manifested via a notification to all participating Parties followed by a period for non-objection.

11. The CARP will handle the communication with Parties to synchronize the understanding about the members and basic parameters of the cooperative approach, which will also need to be reproduced identically in all participating Parties' initial reports.

[3] In order to be immediately recognisable, Article 6.4 mechanism could be identified as CA0001 could if cooperative approaches are numbered and "MECH" if they are identified with alphanumeric codes,

[4] For example, CA001 – CA999, providing for a maximum of 998 possible cooperative approaches in addition to the Article 6 paragraph 4 mechanism, or CA0001 – CA9999, allowing for 9998 cooperative approaches.

[5] The most widely known example is the SWIFT/BIC code, which contains human-readable identification of a bank, country, location and branch, and may consist of between eight and 11 characters. Where a SWIFT/BIC code is less than 11 characters, it is padded to 11 characters on the right side with the "X" character.

12. Due to the extensive preparation and coordination that cooperative approaches will require between participating Parties before the cooperative approach is registered with the United Nations Framework Convention on Climate Change (UNFCCC), it is expected that discrepancies in the way different participating Parties describe basic parameters of the cooperative approach at the point of registering it in the CARP and in their initial reports will be rare; should such discrepancies occur, the necessary corrections will be facilitated through a procedure to be established by the secretariat.

13. It is imperative to have a robust process for registering and identifying cooperative approach in the CARP. A procedure for registering cooperative approaches is proposed to facilitate this. This procedure requires a request from one of the participating Parties to the secretariat to register a new cooperative approach. The suggested process is delineated as follows:

(a) **Initiation**: Participating Parties agree to engage in a cooperative approach;

(b) **Registration request**: One of the participating Parties on behalf of all participating Parties in that cooperative approach accesses the CARP and completes a straightforward web form. At a minimum, this form should specify the name of the cooperative approach and list all participating Parties and the metrics and sectors of that cooperative approach;

(c) **Verification by the secretariat**: Upon receipt of the registration request, the secretariat reviews the submission for accuracy. This includes ensuring that there are no typographical errors or duplications, such as the possibility that the cooperative approach has been previously registered. Following verification, the secretariat notifies all participating Parties involved in the cooperative approach about the status of the registration request and requests their approval. In case of no objection from either the Parties or the secretariat, the registration request will be automatically approved;

(d) **Notification to participating Parties**: Parties involved in the cooperative approach are informed about the successful or unsuccessful registration of the cooperative approach. If successful, a common nomenclator is established and shared for that specific cooperative approach;

(b) Changes

14. Updates to existing cooperative approaches authorized by Parties may be communicated via updated initial reports and/or biennial transparency reports (BTRs). Such updates shall include unique identification of the cooperative approach being updated and shall be synchronized across all participating Parties.

15. Changes to the name of the cooperative approach, its other basic parameters and the composition of participating Parties may be submitted to the CARP. Three options exist for the modalities of requesting such changes:

(a) Changes may only be requested by the Party that initially registered the cooperative approach with the CARP;

(b) Any Party currently considered to be participating in the cooperative approach may request changes; or

(c) Participating Parties may specify which Parties are allowed to initiate changes as one of the basic parameters of the cooperative approach to be agreed upon at initial registration.

16. Existing guidance does not provide for dedicated roles for any Parties within a cooperative approach, suggesting that all Parties shall have equal access to modalities of changing the basic parameters of the cooperative approach – option (b) above. Parties may also agree on another distribution of roles in the charter of their cooperative approach, which may be reflected if option (c) above is supported by the CARP.

17. A similar process to establish concurrency between all participating Parties as the one used in the initial registration of the cooperative approach will be facilitated by the CARP

and the secretariat to reflect the changes. The next updated initial reports, either independently or combined with the next BTR, of all participating Parties would need to reflect an identical change in the description of the cooperative approach.

(c) Revocation

18. Parties shall be able to exercise their sovereignty in deciding to end their participation in a cooperative approach and revoke authorization of the cooperative approach. The implications of this action on the cooperative approach level can be regulated between participating Parties in the cooperative approach charter.

19. Revocation of authorization of the cooperative approach does not affect the actions undertaken by the Party during its participation in the cooperative approach. In particular, ITMOs authorized by the Party do not automatically lose authorization; they are not taken out of circulation and their cancellation or use by other Parties implies the obligation of the authorizing Party to make corresponding adjustments in respect of these ITMOs.

2. Authorization and use of ITMOs

(a) Process

20. As ITMOs always belong to exactly one cooperative approach, the authorization of the cooperative approach by at least one Party must precede issuance of any ITMOs under this cooperative approach.

21. Article 6, paragraph 3, of the Paris Agreement stipulates that the use of ITMOs to achieve the nationally determined contribution (NDC) shall be voluntary and authorized by participating Parties. In addition to the authorization for the use for NDC, the CMA 3 decision[6] enabled authorization for international mitigation purposes other than achievement of the NDC, and other purposes (collectively called "other international mitigation purposes" or OIMP).

22. Authorization is a mandatory requirement for an ITMO to be considered an ITMO and entered into the registry and accounting systems; hence, it shall take place before any other actions with the ITMO. At authorization, the ITMO is bound to a specific cooperative approach; it is also supplied with tags signifying its authorized uses for NDC (always present for any ITMO), international mitigation purposes other than NDC, or other purposes . These tags are always attached to the unique identifier of the ITMO and may change in case of a change or revocation of authorization. The tags may be visualized in registry interfaces positionally[7] or using codes[8] for each of the authorized uses. It should be noted that these ways of visualizing authorizations are functionally equivalent and should be judged exclusively on the basis of readability of the ITMO identity that they provide.

23. Unauthorized mitigation outcomes (MOs) may be issued by registries for the purpose of assigning them unique identifiers before authorization in order to facilitate the authorization process. Such MOs may reside exclusively in specialized "pre-authorization"

[6] Decision 2/CMA.3, annex, paragraph 1(f)

[7] For example, the tags always display as a three-character code with the first character always Y (yes) for authorization for NDC, the second Y (yes) or N (no) for authorization for international mitigation purposes other than NDC and the third one Y or N for authorization for other purposes. For example, "YNN" would mean "authorized for NDC only" and "YNY" – authorized for NDC and other purposes, but not for international mitigation purposes other than NDC.

[8] For example,. each type of authorization would receive a code letter, such as "N" for NDC (always present for ITMOs but not present for MCUs or for mitigation outcomes in pre-authorization accounts, which are not authorized); "I" for international mitigation purposed other than NDC; and "O" for other purposes. For example, "N" would mean "authorized for NDC only" and "NO" – authorized for NDC and other purposes, but not for international mitigation purposes other than NDC.

accounts[9] and cannot be transferred within the Party registry or internationally until authorized. The authorization record is entered in the Party registry and commences the life cycle of the ITMO.

24. An international transfer is a transaction as a result of which ITMOs moved in a way that they need to be reported in the holdings of another Party through in the AEF. Unlike in the case of use for NDC, the use for OIMP does not necessarily follow an international transfer. Therefore, the guidance[10] leaves it to the authorizing Party to define the operation that constitutes the first transfer out of the options of the authorization, the issuance, and the use or cancellation of the mitigation outcome.

25. Consequently, the first international transfer is registered as the first transfer in all cases, allowing for the use of the ITMO for NDC; should the event defined in the authorization for OIMP as the first transfer take place earlier than the possible first international transfer, then this event is considered first transfer. In particular:

(a) If the first transfer is defined as "authorization", the authorization action itself is considered first transfer and the ITMO is considered first transferred since authorization, i.e. at the moment when it became an ITMO;

(b) If the first transfer is defined as "issuance", the issuance of the ITMO in the Party registry is considered first transfer. Reporting-wise, this case is almost equivalent to the previous one as the life cycle of an ITMO for reporting purposes starts with introducing the ITMO into the registry system;

(c) Should an international transfer of the ITMO take place, this transfer is considered first transfer as this is the only possible definition of the first transfer in the case of use for NDC; and

(d) If no international transfers take place and the first transfer is defined as "cancellation or use", then the respective actions are considered first transfer.

26. Summarizing the above, an ITMO authorized for NDC and OIMP is either recorded as first transferred for OMIP withing the AEF of the authorising Party, in which case the ITMO is never internationally transfer to another Party's holdings, or it is internationally transferred and then that first international transfer is automatically the "first transfer".

27. Authorization records affect business rules that define transaction handling. Therefore, these records shall be entered into, or made available through interoperability arrangements to, the transactional registries. Higher-tier registries will take authorizations, along with any changes thereto and revocation, into consideration when collating information for display and transfer to the Article 6 database.

(b) Changes

28. The flexibility left by the existing guidance to change or revoke already issued authorizations creates a number of questions about the authorization and ITMO life cycles in corner cases. In general, it needs to be clarified when and how the authorization of ITMOs may change.

29. From the business perspective, any change of authorization that takes place after the ITMO first changes hands, regardless of whether this operation constituted a first transfer, creates substantial contract risks for those involved in the transaction. Mitigation of these risks may be left to the national level if international transfers are not involved, but guidance would be needed to regulate whether and under which circumstances (e.g. whether the host Party may change an already issued authorization).

[9] Pre-authorization accounts serve to establish unique identification of mitigation outcomes that could be used in any official documents issued by the Party in its internal business process leading to authorization. Their holdings should not be reported in the AEF. Unlike ITMOs, unauthorized mitigation outcomes in pre-authorization accounts are not required to be specific to any particular cooperative approach.

[10] Decision 2/CMA.3, annex, paragraph 2(b)

(a) For changes to authorization that take place before the ITMO first transferred internationally, or for an ITMO that has returned to the authorizing Party's registry and located in a holding account of the authorizing Party, the change may simply be recorded for an ITMO by changing the authorization flags accordingly. The authorizing Party would need to address the contract risks that may arise from such a change, but the change should be technically easy to implement;

(b) For changes to authorization that take place while the ITMO that has not yet reached one of the "end of life" accounts and is not located in the authorizing Party's registry, if allowed, the changed authorization is still entered in the authorizing Party's registry. Since registry systems may not guarantee permanent online connectivity to each other, changes in authorization may need to have applicability dates in the future[11] to allow for the propagation of the new authorization information in the cooperative approach. A mechanism for the propagation of authorization records with their respective applicability dates is planned for[12] in the UNFCCC registry system, although it comes with sizeable added technical complexity. Unconnected national registries may implement similar mechanisms. Upon receipt of a new authorization record, the registry that currently holds the ITMO (the "holding registry") would change the authorization tags on ITMOs in the respective holding accounts;

(c) In a similar scenario, the changed authorization may arrive to the holding registry when the ITMO has already been cancelled or used in contradiction to the newly arrived authorization record. For such cases, guidance will be required as to whether to apply the changes to authorization only for the ITMOs located in holding accounts and that have not reached one of the "end-of-life" cancellation or use accounts, or to trigger any other action to address the situation. Also, this would potentially require ITMOs to move between "end-of-life" accounts, which is not a recommended accounting practice.

30. To maximize control and limit the risks associated to the technical handling of the turnover of authorization records while still providing enough flexibility for Parties to change authorization, it appears reasonable to only allow change of authorization for ITMOs located in the registry of the authorizing Party (i.e. are within the 'holding" of the authorizing Party).

(c) Revocation

31. Revocation of authorization is similar to change with the exception that after revocation the ITMO is no longer authorized at all (i.e. it ceases to be an ITMO). Non-ITMOs should not be located in registry accounts for ITMOs; therefore, business rules in registries shall move the ITMOs to the respective administrative cancellation accounts or a special type of account for the end-of-life of ITMOs that ceased to be authorized, reflecting this fact in the AEF.

32. Similarly to change, the technically preferable option is to disallow revocation of authorization after the first transfer or at least not allow revocation of authorization unless the ITMO is in the authorizing Party's registry.

3. Authorization of entities

(a) Process

33. The participation of entities in the turnover of ITMOs is subject to consent of the Parties involved in the cooperative approach. At a minimum, in order to participate:

(a) An entity shall be authorized by one of the Parties to the cooperative approach; and

(b) The charter of the cooperative approach shall allow participation of entities.

[11] For example, the changed authorization would be applicable as of 00:00 UTC of the day that starts at least 30 hours from the moment of entering the changed authorization into the authorizing Party's registry system.

[12] See requirement A6R-45 of the "Functional requirements and associated cost estimates for the international registry" https://unfccc.int/documents/628728

34. Entity authorization is therefore specific to a cooperative approach; authorization for one cooperative approach by a Party does not authorize the entity to participate in other cooperative approaches in which the Party is participating.

35. Existing guidance[13] requires Parties to include authorized entities in the initial report. The possible dynamic nature of cooperation may make it impractical to require an update to the initial report each time a new entity is authorized. Therefore, the authorization of entities in the initial report may take the form of limiting the types of entities with parameters such as the required level of incorporation and government registration, ownership and governance structure, among others. Authorization of specific entities may take the form of a technical process facilitated by the registry or the CARP.

36. Entities that are authorized to receive and handle ITMOs can have accounts in registries for this purpose. Where the entity account is established in a national registry, it is technically sufficient that the authorization of the entity is handled at the national level.

37. The existing guidance does not require making the authorization of specific entities public, unless the entity is a "using entity". Should the rules of the cooperative approach require making authorization of an entity available within the cooperative approach or publicly, the Parties participating in the cooperative approach would need to establish a process for communicating and/or publishing such authorizations within the cooperative approach.

38. Should the CMA require the publication of lists of specific authorized entities, it would become necessary to address the problem of the identification of entities at the international level. The usual practice here is to request the entity name, location, and the name and location of the governmental entity which registered incorporation of the entity and within which names of entities are guaranteed to be unique. Many Parties also practice issuing unique governmental incorporation identifiers, which provide better guarantees of unique identification than entity names. The publication itself can be executed via the CARP.

39. For entities that will be authorized to have accounts in the UNFCCC-operated registries, the entity identification will need to be carried out in accordance with security protocols to be established by the secretariat in consultation with the RSA forum. Two principal options exist in organizing this process:

(a) The Party may **identify** the authorized entity and assume responsibility for its identification; or

(b) The Party may **indicate** the entity it intends to authorize and request the secretariat to handle the identification procedures.

40. The identification procedures and checks should be similar to the "know-your-customer" checks used in the financial industry, where the identity of business entities and their representatives are rigorously checked for government identification documents, control over access credentials, and currency of records of business activity. The use of universal entity identifiers such as the D-U-N-S numbers[14] may not be an accessible option for all entities.

41. In any event, the authorizing Party remains responsible[15] for the entities it authorizes.

42. Once authorized to receive ITMOs, the entity should generally be able to receive any ITMOs in circulation under the cooperative approach for which the entity is authorized. Limitations on the kind of ITMOs specific entities may receive and hold would create unjustifiable administrative burden, add data that is difficult to track,[16] and may negatively

[13] Decision 2/CMA.3, annex, paragraph 18(g).

[14] https://www.dnb.co.uk/duns-number.html

[15] In the same sense that 9/CMP.1, annex, paragraph 29 makes the Party authorizing participation of legal entities in Joint Implementation (JI) responsible for "the fulfilment of its obligation under the Kyoto Protocol" and ensuring that their participation is consistent with available guidance.

[16] Either the entity authorization would need to be accompanied with information on the kinds of ITMOs it can hold, or the ITMOs themselves would need to be "pinned" to a particular entity or entities.

affect the liquidity of the market should trading be desired under the rules of the cooperative approach.

(b) Change

43. Changes of authorization may come from the authorizing Party at any moment. The nature of the change may concern the basic parameters of the authorization which do not affect the entity's holdings.

44. If entities are only allowed to hold ITMOs generated for activities in which they are direct participants, changes that withdraw authorization of the entity for a specific activity may affect ITMOs that the entity already holds. In this case:

(a) The entity may be allowed to continue to hold ITMOs it can no longer receive; or

(b) The ITMOs shall be automatically transferred to an account to be designated by the Party, which may be the administrative cancellation account.

(c) Revocation

45. In the way the revocation of authorization affects the holdings of ITMOs, it is similar in nature to a change in authorization that leaves the list of allowed activities empty for an entity.

46. Should centralized lists of authorized entities be made public, the entry of an entity is:

(a) Removed from the list, if the entity was never "using entity" in reporting.

(b) Marked as "no longer authorized" with the effective date of revocation of authorization, if the entity ever appeared in reporting.

B. Reporting tables

1. Agreed electronic format

(a) Content and layout

47. The content to be submitted in the AEF is outlined in decision 2/CMA.3, annex, paragraph 20. However, it is crucial to emphasize that while the text provides an overview of the information to be included, it does not specify the required format or level of detail. As the main objective of reporting this information is to ensure transparency and facilitate, thorough consistency checks, the avoidance of double counting, it is essential to establish a comprehensive outline that clearly defines the minimum content that should be included in the AEF in a detailed manner.

48. Regarding the options of the possible layouts and contents for the AEF, there are two possible options:

(a) **Option 1**: Four tables with the information required to perform the consistency checks and other fields to provide more public information and enhanced transparency. **A spreadsheet with this option can be found here;**

(b) **Option 2**: Thirteen tables with information required to perform the consistency checks and other fields to provide more public information and enhanced transparency. **A spreadsheet with this option can be found here.**

49. Regarding Option 1, this offers four tables with essential information for consistency checks and incorporates additional fields to enhance transparency. This option provides a richer dataset for public scrutiny and caters to a broader range of stakeholders. It does require more effort and resources for reporting but offers a more comprehensive view of each Party's contributions. While this option may seem more straightforward regarding the number of tables, the tables become large, with several empty cells that do not have to be filled, which

may make it difficult to read and would require a further processing of the submitted information to extract valuable insights.

50. Regarding Option 2, this segregates the information on actions into eleven (plus one for submission information and another for holdings) tables, which may be seen as more user-friendly in terms of offering a detailed and comprehensive overview of each Party's positions with respect to ITMOs for each relevant action type in which it has engaged in the reported year.

51. When assessing the available choices, it is important to bear in mind that the Article 6 technical expert review team (Article 6 TERT) will not review the submitted information in its raw form. Instead, it will utilize aggregated tables, compiled data, and various synthesis reports coming from the raw data throughout the evaluation process. Likewise, the general public, in addition to the submitted data, will have access to the summary and aggregated tables and different reporting filters within the CARP, enabling them to extract valuable insights from the data.

52. Regarding the incorporation of conversion factors for ITMOs that are in non-greenhouse gas (GHG) metrics, and the associated GHG equivalent, two alternatives may be considered by Parties:

(a) **Option 1**: Adopt an initial version of the AEF which will only include GHG-metric IMTOs (i.e. ITMOs denominated in t CO_2 eq) at CMA.5. Further work would need to be taken to develop and consider either an expanded version of the AEF, encompassing conversion factors for non-GHG metric ITMOs or possibly consider dedicated AEFs for each metric.

(b) **Option 2**: Adopt an AEF that will accommodate the inclusion of ITMOs of all metrics, and conversion factors for ITMOs that are in non-GHG metrics, noting that necessary aggregated table and reports on the CARP will be available in separate metrics as required for the Article 6 TERT.

53. Regarding reporting of first transfers, two distinct approaches may be considered by Parties:

(a) **Option 1**: The first transfer is delineated as a distinct action type, irrespective of the causative action leading to the first transfer (first international transfer, issuance, authorization, and use or cancellation). This distinction will be manifested in the AEF as two separate actions.

(b) **Option 2**: The first transfer is denoted directly on the specific action that results in the first transfer. This will be represented in the AEF by introducing a column titled "First transfer," with binary choices being "Yes" or "No."

(b) Making AEF public on the CARP

54. The information submitted in the AEF should be made accessible to the public through the CARP as required pursuant to decision 2/CMA.3, annex, paragraph 35. Given that the AEF will likely contain a substantial amount of quantitative data, ensuring that the information made available through CARP serves the interests of transparency and ease of access is advisable. To achieve this goal, the CARP will publish this information in two distinct forms:

(a) **Raw information**: This refers to the unaltered data initially submitted by the Parties. Making the non-confidential information contained in this raw data accessible to the public allows for greater transparency and public scrutiny of the primary information provided by each Party;

(b) **Processed information**: This entails presenting the data in a more structured and user-friendly format. It includes creating tables summarizing the information, which can facilitate quick comprehension and comparisons. Furthermore, including filtering and search options is suggested to enhance the usability of the information. These options enable users to sort and retrieve data by criteria such as Party, cooperative approach, ITMO ID, or authorization number.

55. Raw information is the one to submitted by Parties according to options from paragraph 54 above. Processed information will be summary tables and synthesis reports that can be automatically generated by the CARP for each Party. See Tables 1 and 2 for examples.

Table 1
Example of summary table that can show information provided in the AEF of a Party

Summary table for a given AEF (i.e. the AEF for Party A for the year 2025 – submitted 15 April 2026)
Total number of ITMOs authorized by the reporting Party shown by use towards NDC, use towards OIMP and use towards NDC and/or OIMP
Total number of ITMOs held by the reporting Party at the beginning of the year and at the end of the year
Total number of ITMOs first transferred by the reporting Party shown as International first transfers and OIMP first transfers
Total number of ITMOs internationally transferred by the reporting Party (excluding first transfers)
Total number of ITMOs transferred/forwarded by the reporting Party to the Adaptation Fund for share of proceeds
Total number of ITMOs acquired by the reporting Party
Total number of ITMOs used towards the reporting Party's NDC
Total number of ITMOs used by the reporting Party towards OIMP, clarifying the specific OIMP use, by the source of the ITMO (either from the own Party or from another), and specifying the quantity of uses that constitute a first transfer
Total number of ITMOs cancelled by the reporting Party, clarifying the specific use (e.g. mandatory/voluntary global emissions mitigation, administrative reasons, by the source of the ITMO (either from the own Party or from another)), and specifying the quantity of uses that constitute a first transfer

Table 2
Example of summary table that can show information of a Party for all submitted information of that Party

Summary table for annual information for a given Party
Total number of ITMOs authorized by a specific Party shown by use towards NDC, use towards OIMP and use towards NDC and/or OIMP by year
Total number of ITMOs first transferred by a specific Party by year of first transfer
Total number of ITMOs first transferred by a specific Party by vintage of ITMOs first transferred
Total number of ITMOs internationally transferred by year of transfer (excluding first transfers)
Total number of ITMOs transferred/forwarded by the reporting Party to the Adaptation Fund for share of proceeds by year
Total number of ITMOs acquired by the reporting Party for each year
Total number of ITMOs used towards a specific Party's NDC by year
Total number of ITMOs used towards OIMP by the reporting Party, clarifying the specific OIMP use, by the source of the ITMO (either from the own Party or from another), and specifying the quantity of uses that constitute a first transfer by year
Total number of ITMOs cancelled by the reporting Party, clarifying the specific use (e.g. mandatory/voluntary global emissions mitigation, administrative reasons, by the source of the ITMO (either from the own Party or from another)), and specifying the quantity of uses that constitute a first transfer by year

(c) Authorization in the AEF

56. Decision 2/CMA.3, annex, paragraph 20 requests information on authorization of ITMOs, as well as authorized entity or entities. Since this requirement is established in the annual information report, information needs to be submitted in a tabular format. However, it is important to note that there are certain limitations associated with this method of information submission, as it restricts the input to either plain text or numerical data. For instance, the use of hyperlinks may pose challenges as they may become inactive over time, resulting in incomplete public information.

57. Additionally, some Parties may wish to provide additional information for the sake of transparency, but the design constraints of the AEF may not allow for this. Regarding these considerations, two possible options are proposed:

(a) **Option 1:** In addition to information required in the AEF, establish a repository on the CARP. This repository would make non-confidential information regarding authorizations accessible, including the storage of various documents and information on any changes to the authorization. In the AEF, a hyperlink to the specific address of the repository would be provided. The information of this repository would be part of the process described in A.1(a). This option will also provide a common authorization ID linked to the authorization, for reporting, and would include information for later consistency checks, thus reducing the burden of information to be repeated in the AEF.

(b) **Option 2:** Provide information on authorizations solely in the AEF, including all the necessary details for consistency checks and transparency.

58. Regarding Option 1, it provides a centralized repository where Parties can consult any authorization issued for Article 6, paragraph 2. It offers the flexibility for Parties to include additional information as desired and allows for different types of authorizations, additionally it reduces the burden of the Parties when filing the AEF and simplifies the AEF, since it would only contain a reference the authorization ID. However, it does require Parties to update the repository whenever a new authorization is issued or if there are changes to existing authorizations. It is important to note that the registration or updating of authorizations can be streamlined through automatic submissions from registries or Parties' repositories, eliminating the need for manual updates.

59. Regarding Option 2, it simplifies the submission process, as no extra steps are required. However, it may reduce transparency, as not all details of the authorizations involved in Article 6, paragraph 2, can be found in one central location. Additionally, it opens up the possibility of submitting links to external repositories that may become inactive in the future, resulting in the loss of information in the submissions.

(d) Common nomenclatures

60. The common nomenclature of cooperative approaches is established using a procedure proposed in paragraph 13 above.

61. The consistency checks for the AEF are conducted using algorithms that analyze the data submitted in the AEF and the data stored in the Article 6 database. In order to perform these checks, it is crucial to establish standard terms for denoting identical elements. For instance, to ensure the consistent verification of ITMO reporting within the context of a cooperative approach, there is a requisite for all Parties to reference that cooperative approach using a designated code. This uniformity enables accurate and reliable checks.

62. An overview of the consistency checks can be seen in the *Functional requirements for the centralized accounting and reporting platform and the Article 6 database*,[17] on pages 42, 43 and 44.

2. Regular information referred to in decision 3/CMA.3, annex, paragraph 23(j)

63. Decision 2/CMA.3, annex, paragraph 23(j) states that regarding the information of paragraph 23(c–e) from the same annex, the amounts should be provided with a detailed

[17] https://unfccc.int/documents/628727

breakdown by the cooperative approach, sector, transferring Party, and using Party and vintage of the ITMO. Paragraph 23(c–e) requests:

(a) Annual quantity of ITMOs first transferred;

(b) Annual quantity of mitigation outcomes authorized for use for other international mitigation purposes and entities authorized to use such mitigation outcomes, as appropriate;

(c) Annual quantity of ITMOs used towards achievement of its NDC.

64. Note that this information is a summary information of the one present in the AEF, and does not lie in the Article 6 database; hence, it is not subject to consistency checks.

65. **A proposal for the tables to be used to report information as per paragraph 23(j), annex, 2/CMA.3 can be found here**.

C. International registry

1. Functionalities of the international registry

66. The following general principles are to be used in the development of the international registry:

(a) The international registry shall be built with the same high standards for reliability and security established for financial systems. It shall provide robust consistency guarantees and traceability of any action to the initiator, the time of initiation and the grounds on which the action was permitted by the system;

(b) The registry shall generate and produce sufficient information for the generation of the AEF for Parties using it;

(c) The registry shall guarantee consistency of operations within it and facilitate consistency of operations across connected registries;

(d) The international registry should cover the majority of use cases that Parties are envisaged to have.

67. The principles listed above imply that the international registry should be rich in functionality and modes of operation. In particular, Parties that intend to use the international registry for transactional purposes should be able to issue and transfer units; Parties that intend to use the registry for accounting purposes should be able to set up their accounts to trace ITMOs in the international registry, the mechanism registry or national registries according to the specified interoperability protocols (see section6(a)91 II.C.6 below).

2. Procedure for the use of the international registry

68. Pursuant to decision 2/CMA.3, annex, paragraph 30, any Party may use the international registry. The Parties would need to formulate a request to the secretariat, as the administrator of the international registry, to create a Party-specific section in the registry.

69. Should entity accounts be permitted at all in Article 6 paragraph 2 registries, the international registry should also allow entity accounts in order to enable Parties that do not have a national registry to provide accounts to the entities they authorize.

70. The request can be made in the form of a document or a web form to be submitted by the national focal point and containing:

(a) The expressed request to create a Party-specific section;

(b) The list of cooperative approaches the Party intends to participate in when using the Registry;

(c) Sufficient information to identify and electronically authenticate the administrator of the Party-specific section, using more than one authentication factor.

71. Should the configuration of use of the international registry by the Party change in the future, such as in the case of the addition or removal of cooperative approaches, or appointment of the new administrator, a similar process may be used.

72. Upon receipt of the request to create or modify the Party-specific section, the secretariat will verify the data provided, authenticate the new Party-specific section administrator, and create the Party-specific section in the international registry.

73. The international registry will also have a comprehensive user guide, including a user-friendly list of capabilities to help Parties to determine whether the international registry is the right choice for their mode of cooperation.

3. Authorization and the authorized status of mitigation outcomes in the registry

74. As mentioned in section II.A.2 above, the Parties would need to identify the permissible moments when authorization should be granted to ITMOs, in particular in relation to the moment of the generation of ITMOs in the registry.

75. Should it be possible to authorize ITMOs after generation and issuance, e.g. after their generation in a special pre-authorization account as described in paragraph 23 above, the possibility for any registry to be able to store unauthorized mitigation outcomes would be a very useful function; otherwise, secondary systems would need to be created to track such mitigation outcomes before they can be entered in the registry, and the need to uniquely identify such mitigation outcomes outside of the registry systems would present a risk for consistency guarantees.

76. The records of the authorization actions will be kept separately from the ITMOs themselves in the registry database. They will be linked to the ITMOs they authorize to facilitate the execution of business rules and reporting. Should an ITMO be affected by a change in authorization, its link to both authorizations will be maintained, with applicability dates attached to each of the authorization records.

4. Consistency guarantees in the UNFCCC registry system

77. The international registry and the Article 6, paragraph 4, mechanism registry (as UNFCCC-operated registries) shall provide robust consistency guarantees for operations taking place within them and facilitate consistency of operations taking place within their participation.

78. Under the Kyoto Protocol, consistency guarantees in operations were provided via the centralization of authority on the correctness of information in the International Transaction Log (ITL). The distributed nature of cooperative approaches under Article 6, paragraph 2, as described in the guidance, does not assume the possibility of such centralization in all cases.

79. Nonetheless, the following consistency guarantees can be technically provided:

(a) Consistency of operations where all accounts involved in the transactions are in the UNFCCC-operated registries;

(b) Should the transfer of authorized Article 6, paragraph 4, emission reductions (“AERs”) to the international registry be allowed, the consistency of operations where some participating accounts are in the international registry and others in the mechanism registry.

(c) Consistency of operations in national registries that are connected to the UNFCCC-operated registries (forming a “UNFCCC registry system"), subject to their compliance with the requirements of the standards and recommended practices for electronic recording of data and information and the communication protocols for interoperability to be developed by the secretariat in consultation with the RSA forum.

80. In addition to providing or facilitating consistency, the centralized infrastructure would be able to, respectively, provide complete or partial data for the generation and pre-checks of the AEF for Parties within the UNFCCC registry system.

81. Consistency of operations executed between national registries that are not connected to the UNFCCC registry system may not be facilitated by the centralized infrastructure.

82. For such configurations, a possible option would be to require that if at least one of the Parties participating in a cooperative approach is using the international registry, the international registry is considered to be the authoritative source of information for all transactions and, in this case, a "transaction log service" similar to the international transactional log is built to facilitate consistency of operations.

5. Types of operations, accounts and account holders

83. The international registry will enable multiple account types that will function according to the specified business rules. The following account types are considered essential for the international registry to be functional and answer to the majority of Parties' needs:

(a) Pre-authorization account, where unauthorized mitigation outcomes may be generated for the purpose of uniquely identifying them in the Party's registry;

(b) Generation account, where ITMOs are placed upon authorization and subsequently transferred to other accounts;

(c) Holding account which is specific to the account holder and represents the right of the account holder to handle the ITMOs contained therein. Holding accounts may be subdivided into sovereign holding accounts of the respective Party, holding accounts of authorized entities, and administrative holding accounts managed by the international registry administrator;

(d) Retirement account as the final destination of ITMOs used for NDC;

(e) OIMP cancellation accounts as the final destination of ITMOs used for other international mitigation purposes;[18]

(f) General cancellation account for other types of cancellation.[19]

84. Existing Article 6 paragraph 4 guidance[20] defines nine types of accounts to be available in the mechanism registry. These types can be classified according to the list of account types above and the respective common nomenclature of types of cancellation. In particular, the accounts required by the Adaptation Fund, both for the mandatory levy and voluntary contributions denominated in ITMOs, are a type of holding accounts.

85. Other account types may prove practical with the elaboration of the international registry operational procedure by the secretariat and the registry system administrator (RSA) forum; as they only affect the mechanics of accounting and have no implications for reporting or the level of transparency provided, no further guidance from the CMA is required for each case.

86. Account opening and administration presents an operational burden that affects the cost of running the international registry. Therefore:

(a) The number of main holding accounts in the international registry should be minimized, either to one per account holder (Party or authorized entity) or one per account holder and cooperative approach;

(b) The use for NDC accounts may be limited to one per Party and NDC period;

(c) The cancellation accounts may be limited to one per Party and cancellation type.

87. Account holders may benefit from structuring their ITMO holdings into more accounts or "pockets" than allowed by the account limits described above. For this purpose,

[18] OIMP cancellation accounts may need to be further subdivided into accounts for international mitigation purposes and accounts for other purposes.

[19] Types of cancellation other than OIMP will need to be controlled through a common nomenclature to be maintained by the secretariat. The nomenclature will include administrative cancellation, voluntary cancellation, cancellation as a consequence of revocation of authorization, and other cancellation types.

[20] Decision 7/CMA.4, annex I, paragraph 31.

a simple and fully automated procedure of opening sub-accounts could be included in the international registry. Transfers between the main account and sub-accounts, and between sub-accounts, would always be allowed. Sub-accounts will be aggregated and not visible outside the holdings of the specific account holder.

88. The different types of accounts will be constrained by business rules in the type of actions that may be performed with ITMOs held in such accounts. Generally, all actions concerning accounts may be divided into two categories:

(a) Generation and issuance of an ITMO;

(b) (Outgoing and incoming) transfer of an ITMO.

89. Further differences in the configuration of accounts may be achieved via a combination of business rules constraining operations that are allowed on the account. For example:

(a) A generation account would be configured to allow only the operation of generation of ITMOs and outgoing transfer;

(b) A holding account would be configured to allow only incoming and outgoing transfers;

(c) A cancellation or retirement account (an "end-of-life" account) would only allow incoming transfers.

90. The Party-specific section administrators of Parties that use the international registry will be able to open accounts in their respective Party-specific sections of the international registry. Subject to further guidance, the Parties that wish the authorized entities (see section II.A.3 above) to have accounts in the international registry would need to provide sufficient information and take responsibility for identifying the prospective account holders. Due to the potentially high value of assets in accounts, the identification to be provided would need to have more than one authentication factor (e.g. name, email address and a mobile telephone where a text message could be sent).

6. Interoperability

(a) Future interoperability models and interoperability with other registries

91. Interoperability between registries may follow different models which have been addressed in detail in the "Technical paper on options for operationalizing the guidance on cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement and in decision 2/CMA.3".[21] To recall, in order to facilitate consistency of operations, the following methods of interoperability may be used:

(a) Implementation of two registries as parts of one internally consistent system;[22]

(b) Manual interoperability arrangement through the use of proxy accounts and manual "cancellation and issuance" of ITMOs in participating registries;[23]

(c) Implementation of a messaging protocol with reconciliation and a central authority on transaction consistency matters;[24]

(d) Distributed ledger technologies with cryptographic authentication of transactions that are counter-signed by multiple participants of a network of registries.

92. For practical and cost reasons, the UNFCCC registry system will have one approach and standard of interoperability of national registries that connect to the UNFCCC registry

[21] https://unfccc.int/sites/default/files/resource/SBSTA57_Artcile%206.2_Technical%20paper.pdf

[22] This approach will be used by the secretariat to establish interoperability between the international registry and the mechanism registry

[23] This approach is used, for example, in the to transfer emission reductions represented by CDM CERs in the Emission Trading Scheme (ETS) implemented by the Republic of Korea

[24] This approach was used under Kyoto protocol with the creation of the international transaction log (ITL)

system. Where a cooperative approach includes both the Parties using national registries and Parties using the international registry, the national registries involved would need to implement the standard set by the secretariat in consultation with the RSA forum for the international registry.

93. It is important to note that, since ITMOs cannot cross the boundaries of the cooperative approach they belong to, consistency guarantees under Article 6, paragraph 2, are limited in scope to the cooperative approach. Therefore, it is possible to have multiple methods of transaction management and guaranteeing consistency, and also to prompt-start cooperation using a simpler approach and, later on with the growth of national and international infrastructure capabilities, switch to a more sophisticated solution.

94. For example, a cooperative approach may:

(a) Initially require all participating Parties to use the international registry to account for their ITMOs under this cooperative approach;

(b) When integration APIs[25] of the international registries become available, require all participating Parties to involve the international registry in all transactions, so that the international registry may become the authoritative source of consistent data on all transactions;

(c) Later on, when the interoperability standards become available and are implemented in the international registry and national registries, some participating Parties may start using their national registries to participate in the same cooperative approach either independently or using the transaction log service offered by the international registry.

95. In all models discussed above, the availability of transaction information in the UNFCCC registry system enables it to pre-fill the AEF and other reporting requirements. The architectural proximity of the UNFCCC registry system and the Article 6 database will also securely facilitate pre-checks requested by Parties for their reporting.

96. Under any circumstances, engagement with the UNFCCC registry system remains voluntary for the Parties. The Parties may decide whether they wish to participate in the UNFCCC registry system and benefit from the consistency guarantees, transaction handling and facilitation of reporting provided.

97. Specific modalities of interoperability between the UNFCCC registry system and national registries will be elaborated by the secretariat in collaboration with the RSA forum.

(b) Interoperability with the Article 6, paragraph 4, mechanism registry

98. The Article 6 paragraph 4 mechanism may produce ITMOs according to its internal governance rules and subject to authorization from Parties. This makes it analogous to an Article 6, paragraph 2, cooperative approach in which all Parties to the Paris Agreement participate as a consequence of participation in the Paris Agreement. The AERs, the ITMOs produced under the Article 6, paragraph 4, mechanism, can therefore be received, held and used by all Parties to the Paris Agreement without the need for further agreements.

99. The connection between the international registry and the mechanism registry is provided for in the guidance.[26] The international registry shall be able to "pull and view" the information[27] from the mechanism registry. "Pulling and viewing" makes the international registry the accounting registry where ITMOs are accounted for, and the mechanism registry the transactional registry where underlying units are transacted.

100. Subject to further CMA guidance, the connection may also allow the movement of AERs from the mechanism registry to the international registry (and, potentially, in the opposite direction).

[25] Application programming interfaces or APIs are a way for IT systems to communicate with each other in an automated manner.

[26] Decision 3/CMA.3, annex, paragraph 63

[27] Decision 6/CMA.4, annex I, paragraph 49

101. As the international registry can be seen as a collection of national registries operated in one internally consistent system by the secretariat, if the option to allow movement of AERs from the mechanism registry to the international registry it may logically follow that movement of AERs to separate national registries would follow the same rules.

102. The options are not mutually exclusive and the interoperability between the UNFCCC registry systems may be used differently by different Parties if both options are allowed by the guidance.

103. Technically, interoperability will be implemented by the secretariat by making the international registry and the mechanism registry parts of one technical system with strong internal consistency. This will quickly and cost-efficiently provide a possibility to ensure strong consistency guarantees for operations within and between UNFCCC-operated registries without creating complex interoperability solutions or shifting authority away from registries in matters related to the consistency of operations.

104. A6.4ERs not specified as authorized for use towards achievement of NDCs and/or for other international mitigation purposes (mitigation contribution A6.4ERs or mitigation contribution units "MCUs) issued under Article 6, paragraph 4, mechanism are not authorized and hence are not ITMOs. It is assumed that, from the Article 6, paragraph 2, standpoint, they are an internal matter of the mechanism, do not have a status and cannot appear in any Article 6, paragraph 2, registries, including the international registry, and therefore their entire life cycle shall be confined to the mechanism registry. Not being ITMOs, MCUs cannot be "first internationally transferred" even when they are transferred between accounts belonging to different Parties in the mechanism registry. Further guidance will be required in the event that Parties would want MCUs to also leave the mechanism registry.

7. Additional functionalities and procedures

105. Administrative functions in the international registry are described in sufficient detail in existing guidance and are rooted in the established practice and experience of the secretariat in administering registry systems. The secretariat will fulfil the role of the administrator of the international registry. The functions of the administrator will include:

(a) Technically developing, setting up and operating the registry;

(b) Administering user access;

(c) Administering centrally held accounts;[28]

(d) In cooperation with Party-specific section administrators, facilitating troubleshooting and recovery in cases where corrective actions are required;

(e) Producing reports to Parties and any required public reporting.

106. The development of the international registry will be accompanied by a robust maintenance and support arrangement that will enable the secretariat to enhance the functionality of the registry with time, according to the needs of using Parties. The governance of the functional roadmap of the international registry will be organized by the secretariat in consultation with the RSA forum.

(b) Administrative functions, impersonation, and exceptions to business rules

107. Generally, business rules implementing existing guidance will be installed in the international registry to act as guardrails for transaction rules. For any eventuality, administrative functions available to the registry administrator only will allow:

(a) One-off suppression of specific business rules;

[28] Currently, no centrally held accounts are planned for the international registry, as it is expected to function exclusively as a combination of Party-specific sections. At the same time, some account types, such as the account for administrative cancellation and transitory account for corrective actions, may prove practical.

(b) The registry administrator to act on behalf of any account holder or Party section administrator (impersonation).

108. These administrative functions will be used only in exceptional, well-justified circumstances in order to correct mistakes, work around recently discovered errors in the implementation of business rules, or execute urgent operations for a Party that for any reason does not have access to the administration of their Party-specific section.

109. Any use of suppression of business rules or impersonation will be transparently logged by the registry with the justification provided by the registry administrator, identities of the impersonated user(s) and the administrator acting on their behalf recorded, and the exact set of business rules being suppressed.

(c) Integration with systems other than registries

110. The international registry will integrate with other systems that support its functioning, in particular:

(a) Integration with the CARP for the purpose of using common nomenclatures (see section II.B.1(d) above) of cooperative approaches, Parties, metrics, unit types and other centrally maintained lists;

(b) Integration with the Article 6 database in order to provide data for the generation ("pre-filling") of AEF and other quantitative reporting[29] automatically, including outside reporting periods, to facilitate pre-checks.

(c) UN enterprise resource planning (ERP) system, should the international registry charge fees for certain operations by authorized entities and require facilitation of invoicing for payment with control incoming payments;

(d) Depending on the agreement within the cooperative approach, the registry may need to interoperate with systems that facilitate:

(i) Issuance of ITMOs, such as the business process management systems controlling the flow of documents and verification of requirements prior to the issuance;

(ii) Cancellation of ITMOs, such as via voluntary cancellation platforms.

D. Sequencing

111. As outlined in decision 6/CMA.4, annex II, paragraph 12, initial and updated initial reports that are submitted standalone (i.e. not together with the Parties' BTR) are subject to a review by the Article 6 TERT during the period after the calendar period in which they were submitted. The calendar periods can span either three or six months. Furthermore, initial and updated initial reports may be submitted with the regular information (Annex 4 to the Parties' biennial transparency report) and can be reviewed jointly by the same Article 6 TERT.

[29] Decision 6/CMA.4, annex I, para 30

Figure 1
Review timing outline (an initial or updated initial report must be reviewed in the subsequent reporting period, i.e. either three or six months)

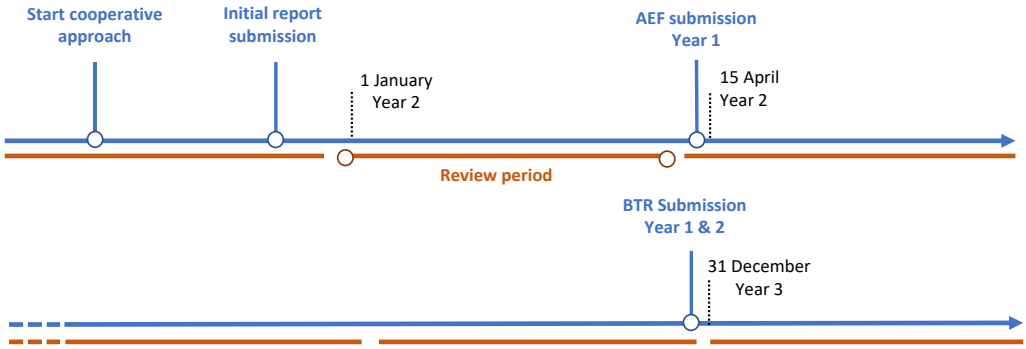

Figure 2
Review timing outline (if the initial and updated initial reports are submitted alongside the BTR, they may be reviewed together)

112. It should be noted that ITMOs can only be included in an AEF if they have been assigned an identifier of the cooperative approach pursuant to decision 6/CMA.4, annex I, paragraph 5 (see also A.1(a)B.1(d) above) and this can only be done once the cooperative approach has been made known to the CARP.

113. It should also be noted that only Parties that are confirmed as participating in a particular cooperative approach, through the submission of Part IV of an initial or updated initial report, may record ITMOs from that cooperative approach.[30] As a result, any actions on an ITMO in an AEF from a cooperative approach for which the reporting Party has not submitted an initial or updated initial report shall automatically be considered "inconsistent".

114. Concerning the sequencing options and their implications for the consistency check procedure of the AEF that contains actions on ITMOs from a cooperative approach for which the reporting Party has submitted an initial or updated initial report but for which the Article 6 TERT has not been completed, the following options are under consideration by Parties:

(a) **Option 1**: Participating Parties shall not include actions on ITMOs from that cooperative approach;

(b) **Option 2**: Participating Parties shall include actions on ITMOs from that cooperative approach, but they will be marked as "consistent (pending)";

(c) **Option 3**: Participating Parties shall include actions on ITMOs from that cooperative approach, but they will be marked as "inconsistent (pending)".

115. For a thorough and accurate consistency check, it is relevant that the AEF submitted encompasses complete information on all actions associated with a particular ITMO during the specified period. If some Parties do not submit the AEF by 15 April with the whole set of actions, the implications are as follows:

(a) When all (updated) initial reports from the cooperative approach(es) are reviewed before the submission of the AEF, no adverse impacts on the consistency checks are observed;

[30] Data on IMTO actions are consistency-checked only between Parties to the same cooperative approach, pursuant to decision 6/CMA.4, annex I, paragraph 39.

(b) If (updated) initial reports are not reviewed, but information can still be provided later, no significant impact remains;

(c) When the reports are not reviewed, and actions on ITMOs associated with those cooperative approaches are not submitted, the consistency checks will indicate a "null" result until the required information is provided.

116. Notably, (c) can affect Parties that have already submitted their reports but their counterparts in the cooperative approach have not yet done so. This might be especially relevant for cases where the AEF is submitted after the initial report has been reviewed with the BTR three years after starting to operate with ITMOs. In this case, detected inconsistencies may be more difficult to resolve since inconsistent ITMOs might be cancelled or transferred several times.

E. Inconsistencies identified in data and reviews

1. Inconsistencies identified in data on internationally transferred mitigation outcomes

(a) Consistency check procedure and inconsistencies

117. Each entry submitted in the AEF will be reviewed for consistency in accordance with decision 2/CMA.3, annex, paragraph 33(a). More details about consistency checks can be found in the document titled “Functional requirements for the centralized accounting and reporting platform and the Article 6 database,”[31] on pages 41–45.

118. Inconsistencies, based on their potential impact on environmental integrity, can be classified as either material or non-material:

(a) **Material inconsistencies** refer to discrepancies that could potentially influence the adjusted emission balance. This can arise from using or cancelling an ITMO for which no first transfer has been recorded in the Article 6 database.

(b) **Non-material inconsistencies** pertain to errors or omissions in the reported information on ITMOs that do not affect the adjusted emission balance. Examples include an ITMO used for an unauthorized purpose or an ITMO reported once in one sector and the next time in another sector.

119. The consistency checks assess whether any reported ITMO is:

(a) **Consistent**: All the checks performed match, and there is no inconsistency found;

(b) **Inconsistent**: Some inconsistencies or mismatches of information stored in the Article 6 database have been found;

(c) **Null**: The required information to perform the consistency check was not available. For instance, a Party has reported an acquisition, but the transferring Party has not submitted its AEF.

(b) Reporting and publishing inconsistencies found

120. The reporting Party and Parties affected, as well as the general public, shall be notified of inconsistencies though the CARP, excluding confidential information, pursuant to decision 2/CMA.3, annex, paragraph 33(b) and paragraph 33(d) of the same annex, respectively.

121. The output of the consistency checks will be a consistency report that will show which ITMOs are null or not consistent, according to which consistency check and which kind of inconsistency has been identified.

122. The AEF is comprised of disaggregated information and may encompass multiple ITMOs within each report. To facilitate the review process for the Article 6 TERT, the Article

[31] https://unfccc.int/documents/628727

6 database will generate synthesis reports that include summary tables featuring aggregated data. These reports will also indicate the quantity of inconsistent (mismatch and null) ITMOs for a given indicator or balance. These reports will enable Article 6 TERT to assess whether the information provided by a Party in the regular submission aligns with and matches the data reported in the AEF.

Table 3
Sample segment from the "Actions" table in the consistency report (each action is itemized and its consistency is assessed)

ITMO ID	*ACTION ID*	*Result of the consistency check*	*Consistency check ID, if failure*	*Type of inconsistency*
…	…	…	…	…
CA26-A-A-251-500-2023	15	Consistent	-	-
CA26-A-A-1500-1599-2023	16	Inconsistent	CC-07	Non-material
CA58-B-B-0-399-2024	17	Inconsistent	CC-02	Material
CA58-B-B-1500-2599-2024	18	Null	CC-18	Material
…	…	…	…	…

123. Regarding the means of making public inconsistencies, two options are envisaged:

(a) **Option 1:** Make public the report on the public interface of the CARP, including as an associated report when a specific AEF is shown, but showing reports and associated views, aggregations or summaries, without any particular caveat;

(b) **Option 2:** Make public the report on the public interface of the CARP, including as an associated report when a specific AEF is shown, and showing reports and associated views, aggregations or summaries with information on inconsistencies found;

(i) For granular data, the lines of those reports that include ITMOs whose inconsistencies have not been resolved will be marked as inconsistent (e.g. including an extra column named consistent).

124. For aggregated and summary views, including the information that shall be submitted according to decision 2/CMA.2, annex, paragraph 23, those lines that include ITMOs with unresolved inconsistencies will be marked as inconsistent, detailing up to which amount is consistent. For example, the cell indicating the total amount of ITMOs used towards NDC for a given year will have the declared amount and, in parenthesis, the amount without inconsistencies. Note that if any aggregated or summary view (see examples of aggregated views in tables Table 1 and Table 2) refers to the propagation of such inconsistencies, including when an ITMO is inconsistent in the AEF, its contribution to the adjusted balance will be marked as inconsistent.

Table 4
Sample segment from a summary table that shows quantities in the CARP (each reporting quantity is included, and in parenthesis, the total amount is marked as consistent (not mismatching or inconsistent) by consistency checks)

Reported year	*Cooperative approach ID*	*Sector*	*First transferring Party*	*Vintage*	*Annual quantity of ITMOs first transferred in t CO_2 eq (consistent amount)*
…	…	…	…	…	…
2023	CA26	Energy	Party A	2022	1 500 (1 200)
2023	CA58	Waste	Party B	2023	2 700 (1 700)
…	…	…	…	…	…

125. Regarding Option 1, this strictly fulfils the mandate's requirements to publicly disclose non-confidential consistency check information. Additionally, it streamlines CARP development by eliminating the need to display extra information. However, this option may obscure the identification of inconsistent ITMOs when viewed through the public interface. This means that the general public would have to independently identify which ITMOs are inconsistent and to what extent, which could be less user-friendly and make it more cumbersome to determine which amount claimed to be used is used according to the rules.

126. Regarding Option 2, this entails the propagation of inconsistencies detected in the AEF, as well as any pertinent reports and related information, when presented within the CARP. As an illustrative example, it enables the public to readily discern the extent to which the declared emission balance has successfully undergone the consistency check procedure. This approach does introduce a degree of complexity into the development of the CARP, as it requires the integration of information with the underlying consistency checks. However, it offers enhanced transparency by openly showcasing the outcomes of these checks.

127. The aggregate results of the consistency checks, and identified inconsistencies, are considered by the Article 6 TERT in its report pursuant to decision 2/CMA.3, annex, paragraph 27, and shall be forwarded for consideration in the technical expert review referred to in chapter VII of the annex to decision 18/CMA.1 pursuant to decision 2/CMA.3, annex, paragraph 28, and the reports shall be made publicly available on the centralized accounting and recording platform.

(c) Business rules regarding inconsistencies in data

128. Potential inconsistencies, particularly material ones, identified by the Article 6 database could have adverse consequences on the environmental integrity and double counting. Therefore, it is crucial to evaluate how these inconsistencies may affect the achievement of NDC goals and the assessment of progress. In this context, several options are envisioned:

(a) **Option 1**: ITMOs that are categorized as materially inconsistent in the consistency report should not be utilized for achieving NDC targets or other international mitigation purposes;

(b) **Option 2**: ITMOs that are categorized as materially inconsistent in the consistency report may be employed to achieve NDC targets or other international mitigation purposes, but the reports produced by the Article 6 TERT and Article 13 TERT will include a caveat to highlight these inconsistencies.

129. Regarding Option 1, this would fully avoid double counting since ITMOs with inconsistencies not resolved cannot be used towards NDC achievements.

130. Regarding Option 2, possible double counting is reported, and the public is made aware of it, but it is not fully avoided since it is still claimed by using Parties (with a caveat note from the TER review).

131. Guidance in respect of this business rule does not currently exist, and it is recommended that Parties consider the need for such a rule to help guide the Article 6 TERT in evaluating the reports under review pursuant to decision 2/CMA.3, paragraph 23.

2. Inconsistencies identified in Article 6 technical expert reviews

132. The Article 6 database identifies inconsistencies and produces synthesis reports for the Article 6 TERT. These synthesis reports comprehensively document the cross-check of actions and holdings reported by Parties within a submission against previous submissions, annual information provided as per regular reporting, and also against submissions from other Parties. The purpose of these synthesis reports is to assist the Article 6 TERT in evaluating the data reported pursuant to decision 2/CMA.3, paragraph 23, with the exception of 23(j). Notably, 23(j) is not housed within the Article 6 database and is not subject to consistency checks by the secretariat.

133. Regarding the synthesis reports provided to the Article 6 TERT for the assessment of the quantitative data submitted by Parties, it should be noted that inconsistencies identified in ITMO data as a result of the consistency checks are a matter for participating Parties to resolve through mutual agreement and resolving such inconsistencies lies outside of the scope and capacity of the Article 6 TERT to resolve. Once the identified inconsistencies have been resolved by the involved Parties, the information on the Article 6 database needs to be updated by the resubmission of the AEFs, the re-run of the consistency checks, and the generation of new synthesis reports.

134. When an inconsistency in aggregate quantitative information is identified between the Article 6 database synthesis report and the quantitative data for ITMO adjustments in table 4 of the structured summary, the Article 6 TERT will raise an inconsistency to the Party during the Article 6 TER by considering the business rule contained in paragraph 128 above, if it is agreed. In the absence of such guidance, the Article 6 TERT will raise an inconsistency (or not) at their own discretion.

135. These inconsistencies may be resolved by Parties during the review, where this is practical, or when the Party submits its next BTR. These resolved inconsistencies will be reported in the secretariat's report to CMA as per decision 2/CMA.3, annex, paragraph 36.

136. When an inconsistency in quantitative information remains unresolved, it will be reported into the Article 6 TER report, which will be annexed to the Article 13 TER report, and considered in the facilitative multilateral consideration of progress, and for any persistent inconsistencies by the Article 15 Committee in accordance with decision 20/CMA.1, annex, paragraph 22(a)(iii) and 22(b). These unresolved inconsistencies will also be reported in the secretariat's report to the CMA pursuant to decision 2/CMA.3, paragraph 13.