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Item 3(b) of the provisional agenda

Reports of the subsidiary bodies

Report of the Subsidiary Body for Implementation

**Report of the administrator of the international transaction
log under the Kyoto Protocol**

Summary

This nineteenth annual report of the administrator of the international transaction log provides information to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on the activities of the administrator in the reporting period from 1 October 2022 to 30 September 2023.



Abbreviations and acronyms

AAU	assigned amount unit
CDM	clean development mechanism
CER	certified emission reduction
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
COP	Conference of the Parties
ERU	emission reduction unit
EUTL	European Union transaction log
ITL	international transaction log
ICER	long-term certified emission reduction
RMU	removal unit
RSA	registry system administrator
RSA Forum	Registry System Administrators Forum
SBI	Subsidiary Body for Implementation
SEF	standard electronic format
SIAR	standard independent assessment report
tCER	temporary certified emission reduction
true-up period	additional period for fulfilling commitments for the second commitment period of the Kyoto Protocol

I. Introduction

A. Mandate

1. CMP 1 requested the secretariat to establish and maintain the ITL to verify the validity of transactions proposed by registries established under decisions 3/CMP.1 and 13/CMP.1.¹ The ITL is essential for implementing the mechanisms under Articles 6, 12 and 17 of the Kyoto Protocol.
2. In addition, COP 10 requested the secretariat, as the ITL administrator, to report annually to the CMP on organizational arrangements, activities and resource requirements and to make any necessary recommendations to enhance the operation of registry systems.²
3. Further, CMP 1 requested the SBI to consider, at its future sessions, the annual reports of the ITL administrator with a view to requesting the CMP to provide guidance, as necessary, in relation to the operation of registry systems.³

B. Scope of the report

4. This nineteenth annual report of the ITL administrator to the CMP, covering the reporting period from 1 October 2022 to 30 September 2023,⁴ contains information on the implementation of the ITL and its operational status, including the facilitation of cooperation with RSAs through the RSA Forum and the independent assessment of registry systems. It also contains information on transactions of Kyoto Protocol units, organizational arrangements and resources.

C. Possible action by the Subsidiary Body for Implementation

5. The SBI may wish to take note of the information in this report and to request the CMP to provide guidance to the secretariat and Parties, as necessary, concerning the implementation of registry systems and the future operation of the ITL.
6. The SBI may also wish to provide guidance to the ITL administrator with regard to the expiry date of tCERs issued for the second commitment period of the Kyoto Protocol.
7. The SBI may further wish to provide guidance to the ITL administrator on finalizing the data exchange standards,⁵ as divergent views on implementing the carry-over process for Parties included in Annex I⁶ without quantified emission limitation or reduction commitments for the second commitment period have meant that the work could not be completed.

II. Work in the reporting period

8. Activities related to the fifteenth annual assessment of national registries and the accounting of Kyoto Protocol units were conducted, including processing the SEF tables contained in the national inventory reports for 2022.
9. Preparations for the true-up period assessments were carried out.
10. The ITL administrator continued to support the operations of the ITL. Detailed information on its operational activities and performance is provided in chapter II.B below.

¹ Decision 13/CMP.1, annex, para. 38.

² Decision 16/CP.10, para. 6(m), endorsed by decision 12/CMP.1, para. 3.

³ Decision 12/CMP.1, para. 11.

⁴ Financial information is reported until 30 September 2023.

⁵ See decisions 24/CP.8, para. 3, and 12/CMP.1, para. 2.

⁶ As defined in Article 1, para. 7, of the Kyoto Protocol.

A. Implementation activities

1. Software release

11. One release of the ITL software was produced in September 2023 to support the forthcoming upgrade of the ITL application servers to WebLogic 14. The release was necessary to ensure compatibility of the ITL administration application with the new WebLogic version.

2. Standard electronic format reporting application

12. Parties included in Annex I report, in the SEF tables, information on AAUs, ERUs, RMUs, CERs, ICERs and tCERs from their national registry transferred or acquired in the calendar year preceding the reporting year.⁷

13. The ITL administrator continues to make available to Parties the SEF reporting application (version 3.8.3), which they successfully used to generate their SEF tables for the 2022 reporting cycle.

3. Common operational procedures

14. No changes were made to the common operational procedures as they were deemed to be well established and still relevant.

4. Maintenance and technology refresh

15. The consolidated certificate authority, which is maintained by the ITL administrator to issue and manage the client, server and virtual private network digital certificates needed for the ITL and registry system infrastructure issued 135 digital certificates to registry systems during the reporting period.

16. To maintain the ITL service and protect against cybersecurity threats, regular software patching was carried out on the ITL components, including operating systems, application and database servers, and network components. Endpoint detection and response solution and vulnerability assessment agents protect the ITL servers against cyberthreats.

17. To comply with industry security standards, up-to-date versions of the Transport Layer Security encryption protocol are required for communication between the ITL and registries. Support for version 1.3 of the protocol is being tested by the registries.

5. Data centre hosting and infrastructure

18. Following completion of the migration of the data centre hosting of the ITL infrastructure to a cloud-based environment in February 2019, the availability of the ITL has remained stable and its service well within agreed levels.

19. The ITL administrator, jointly with the cloud service provider, successfully carried out testing of the resilience and failover capacity of the network components forming the ITL infrastructure.

20. The secretariat continues to monitor the quality of the ITL service and identify areas for enhancing and optimizing service delivery by keeping abreast of new developments and products emerging in the cloud technology landscape.

6. Preparations for the true-up period

21. Following decision 1/CMP.17 regarding the date of completion of the expert review process under Article 8 of the Kyoto Protocol for the second commitment period,⁸ the necessary preparations for the true-up period have started in relation to the ITL and supporting processes.

⁷ As per decision 15/CMP.1, annex, para. 11.

⁸ See document FCCC/SBI/2022/10/Add.1, p.11.

B. Operational activities

1. Provision of support for registry testing

22. The ITL administrator supported operational activities and changes for five national registries, including coordinated functional testing, service migrations and disaster recovery testing, and provided connectivity support at application and virtual private network level.

2. Disaster recovery testing

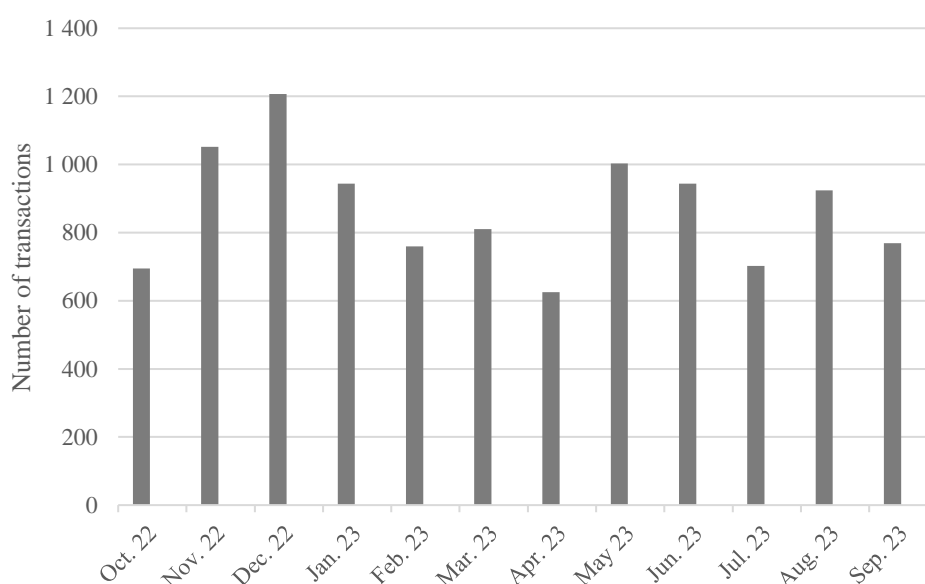
23. Disaster recovery testing of the ITL infrastructure was carried out in December 2022. The test was successful and the restoration of the service on the secondary site was achieved well within the recovery time objective of three hours. Lessons learned from the previous testing were taken into account and related adjustments verified during the testing. The next such exercise is scheduled for the first quarter of 2024.

3. Transaction data and their analysis

24. The level of activity in the ITL can be measured using transactional and operational metrics. Figure 1 shows the number of transactions proposed to the ITL in the production environment⁹ each month. Breakdowns by registry of the number of transactions and the number of Kyoto Protocol units subject to transactions proposed to the ITL are shown in annexes II and III respectively.

Figure 1

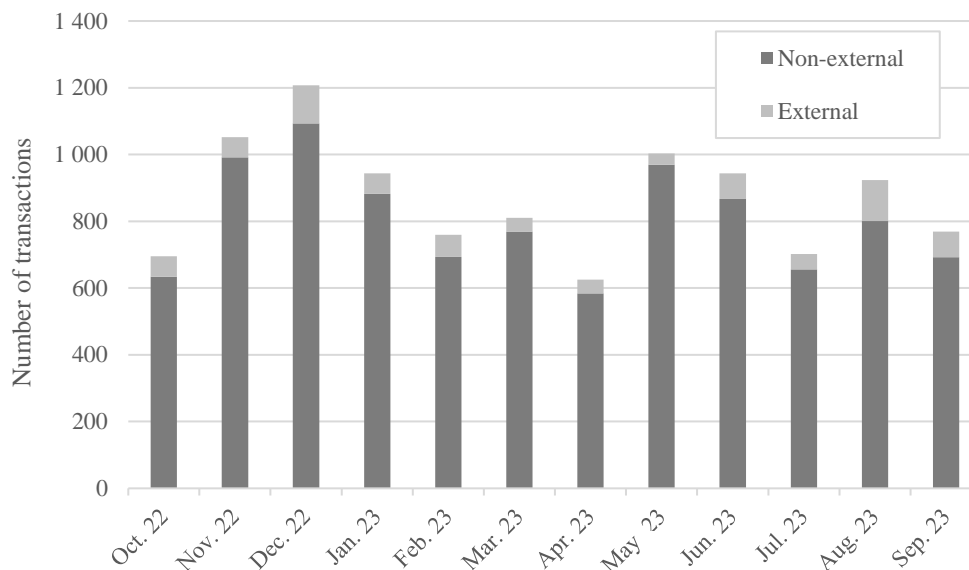
Number of transactions proposed to the international transaction log



25. External transactions, in which the units involved leave the originating registry and arrive at a different registry, and non-external transactions, in which the units stay in the same registry, take place in the registry systems and the ITL. Figure 2 shows the evolution of the breakdown of external and non-external transactions in the ITL.

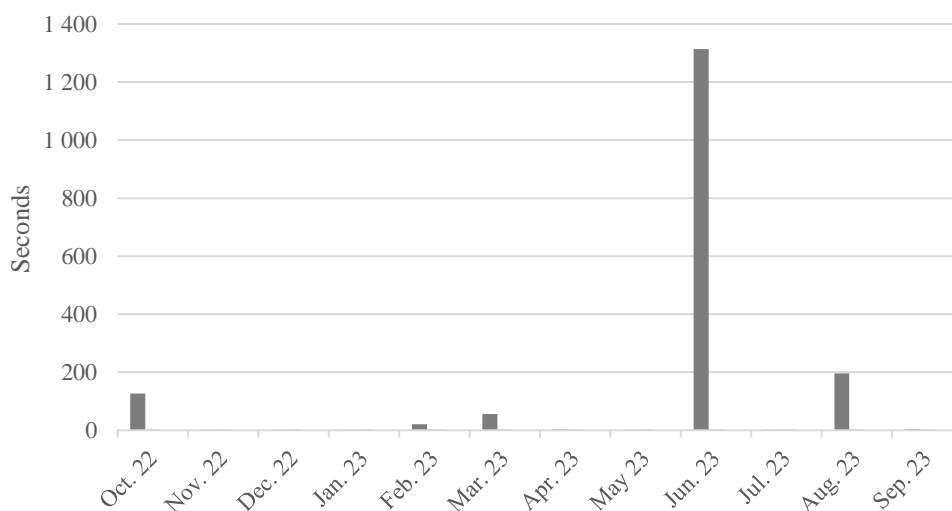
⁹ The live system of the ITL used to support emissions trading under the Kyoto Protocol.

Figure 2
Number of external compared with non-external transactions in the international transaction log



26. The transaction completion time includes the latency incurred as a result of the travel time of messages through the registry network and the processing time within registries, the ITL and the EUTL (if a European Union Emissions Trading System registry is involved in the transaction). Monthly average transaction completion times are shown in figure 3.

Figure 3
Monthly average completion times of transactions proposed to the international transaction log



27. All the longer average transaction completion times observed are due to unexpected national registry downtime, which caused some ongoing transactions to take longer to complete. The annual median completion time for a transaction to complete was 3.1 seconds.

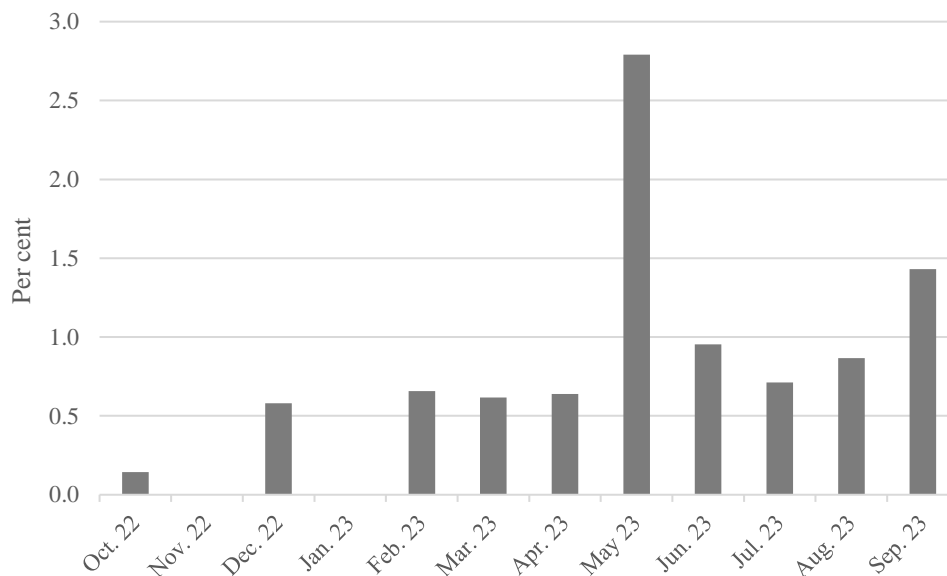
28. Transactions that are not compliant with the data exchange standards are terminated by the ITL. The transaction termination ratio, an indicator of the level of internal checking performed by registries to ensure that the proposed transaction is accurate, is obtained by dividing the number of terminated transactions by the number of transactions proposed in a given time frame. The evolution of the termination ratio is shown in figure 4.

29. If a transaction has not reached a final status within 24 hours, it is automatically cancelled by a clean-up mechanism. The transaction cancellation ratio, an indicator of the

extent of communication problems in registry systems, is obtained by dividing the number of cancelled transactions by the number of proposed transactions in a given time frame. There were no cancelled transactions in the reporting period.

Figure 4

International transaction log transaction termination ratios

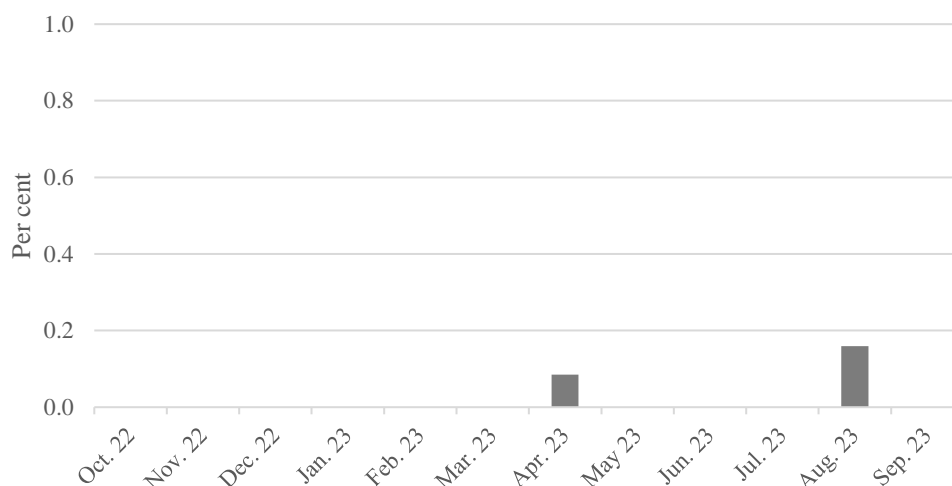


30. The higher transaction termination ratios observed from May 2023 onward are due to net source cancellations initiated by Parties with incorrect recipient account details.

31. The reconciliation process ensures that holdings of Kyoto Protocol units are consistent between registries and the ITL. The occurrence of a reconciliation inconsistency indicates a discrepancy between the ITL and a registry’s records. The inconsistent reconciliation ratio is obtained by dividing the number of inconsistent reconciliations by the number of reconciliations initiated in a given time frame. The ratio is an indicator of the capacity of registries to maintain accurate records of their Kyoto Protocol unit holdings (see figure 5).

Figure 5

International transaction log inconsistent reconciliation ratios



32. The ITL facilitates communication between registries in performing their transactions. The ITL can become unavailable during planned maintenance windows, of which RSAs are informed in advance, or during unplanned outages caused by operational incidents. The availability of the ITL service was 100 per cent. The availability of the ITL taking into account planned outages was 99.37 per cent.

33. The ITL started to receive units applicable to the second commitment period in April 2013, when the first issuance of CERs for the second commitment period was made in the CDM registry. As at 30 September 2023, 933,854,318 CERs for the second commitment period had been issued for 1,809 CDM projects.

4. Status of carry-over

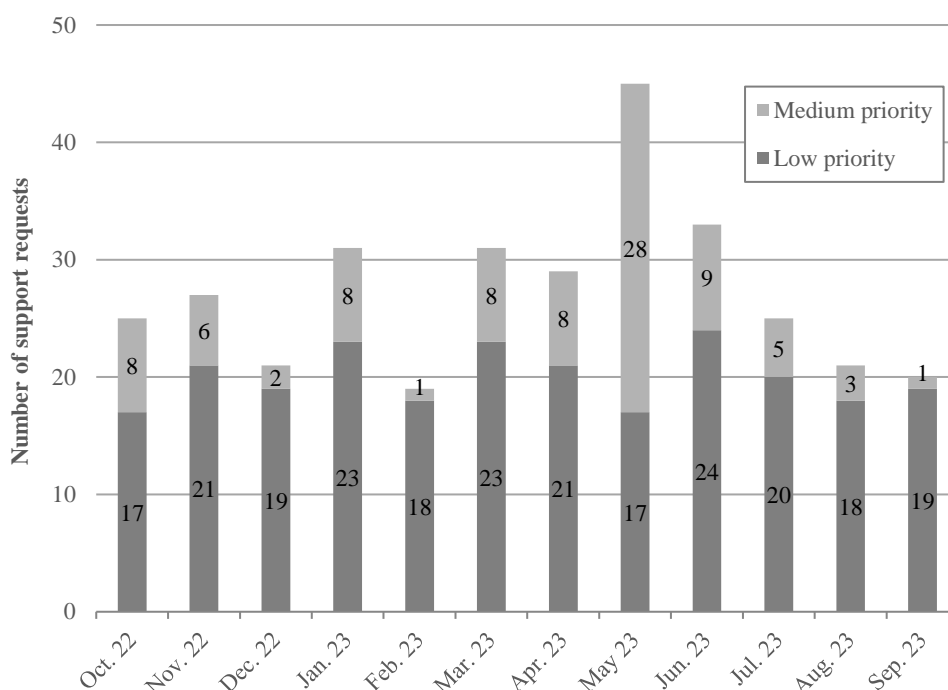
34. From 14 December 2016 to 30 September 2023, 23 Parties carried over units issued for the first commitment period to the second commitment period. A total of 140,740,883 CERs, 171,964,728 ERUs and 3,874,674,797 AAUs were carried over, including 2,333,231 CERs, 44,169 ERUs and 137,491,013 AAUs in the reporting period. As at 30 September 2023, 2,621,605,788 units valid for the first commitment period were available for carry-over.

5. Service desk

35. The ITL service desk is the focal point for all support provided to RSAs for operating and testing their registries. The service desk carries out technical activities related to the initialization and go-live processes under the supervision of the ITL administrator. The service desk also provides continuous support to RSAs from 8 p.m. on Sundays until midnight on Fridays (Coordinated Universal Time).

36. Figure 6 shows the number of support requests handled by the ITL service desk, categorized by priority. High-priority support requests are initiated when the processing of transactions from one or more registries cannot be performed. Medium-priority support requests are related to the performance or stability of the ITL, which may affect transaction processing. Low-priority support requests are related to information items or performance issues that do not directly affect transaction processing.

Figure 6
Number of support requests handled by the international transaction log service desk



6. Change management activities

37. Since the go-live of the ITL, the administrator has established a change management procedure for making changes to the data exchange standards and common operational procedures governing various processes.

38. During the reporting period, no change requests were submitted and the ITL administrator continued to maintain the data exchange standards in collaboration with RSAs.

39. Owing to divergent views on implementing the carry-over process for Parties included in Annex I without quantified emission limitation or reduction commitments for the second commitment period, it has not been possible to issue a final version of the data exchange standards in order to provide support for all processes in relation to the second commitment period. The SBI may wish to provide guidance to the ITL administrator on this issue, the resolution of which is essential to ensuring accurate accounting of Kyoto Protocol units.

40. The SBI may also wish to provide guidance to the ITL administrator on the expiration date of tCERs issued for the second commitment period. Some RSAs have noted a lack of clarity in this regard, with tCERs due to expire at the end of the commitment period following the one in which they were issued.

7. Communications

41. The ITL administrator continues to facilitate collaboration among RSAs to ensure the accurate, efficient and secure operation of registry systems. To support this process, the ITL administrator uses and maintains a number of communication channels, including pages on the UNFCCC website and the RSA extranet collaboration platform.

42. The turnover in RSAs is relatively high, and the registry system and accounting of Kyoto Protocol units are complex matters, leading to a steep learning curve for newcomers. Since a large body of documentation and presentations, covering over 15 years of operations, is available on the RSA extranet, the ITL administrator continues to explore efficient ways of providing the most relevant presentations and documents to newcomers so that they may familiarize themselves quickly with the registry system processes and procedures and the Kyoto Protocol accounting framework.

C. Independent assessment of national registries and go-live activities

1. Annual assessment activities

43. The process of preparing the SIARs¹⁰ relies on an independent assessment of national registries. The process is followed by RSAs when reporting annually on changes in national registries and providing information on accounting of Kyoto Protocol units, and guides the activities carried out by assessors when reviewing reported changes and accounting information. Once the SIARs are finalized, they are forwarded to the expert review teams for consideration as part of the review of national registries and accounting of Kyoto Protocol units under Article 8 of the Kyoto Protocol.¹¹

44. The ITL administrator continues to encourage and promote engagement of RSAs in the SIAR process¹² with a view to stimulating the sharing of information on national registry related reporting and review and thus improving the quality of the information on national registries in Parties' annual submissions and optimizing the ITL cost structure.

45. During the reporting period, 36 Parties submitted their national inventory reports with information on changes in their national registries and their SEF tables with information on transactions applicable to the second commitment period.

46. During the reporting period a simplified approach compared with the previous one was applied, with a focus on ensuring that the SEF tables submitted by Parties are consistent with ITL records.

47. A total of 28 Parties initially submitted SEF tables for the first and second commitment periods that were consistent with ITL records. Having identified discrepancies, the ITL administrator worked with the eight affected Parties to address them. Identified discrepancies were related to carry-over information and replacement of tCERs upon expiry.

¹⁰ See decision 16/CP.10, para. 5(a).

¹¹ As per decision 16/CP.10, para. 6(k).

¹² As per decision 16/CP.10, para. 6(c).

2. Activities related to the true-up period assessment

48. The true-up period report procedure, which provides guidance on requirements for the true-up period, was updated for the second commitment period. The document defines the procedures and timelines involved in the true-up period assessment and identifies the responsibilities of the various actors.

49. The true-up period assessment report template was created with a view to optimizing the work of external assessors and providing consistent input for assessing information reported upon the expiration of the true-up period.

3. Go-live activities

50. Since no go-live processes were initiated by registries during the reporting period, the ITL administrator did not need to provide relevant support. As at 30 September 2023, 38 national registries and the CDM registry were connected to the ITL (see annex I).

D. Registry System Administrators Forum

51. The ITL administrator convenes the RSA Forum to coordinate the technical and management activities of RSAs, to provide a platform for RSAs to cooperate with each other and to provide input to the development of common operational procedures, recommended practices and information-sharing measures for registry systems.¹³

52. Participation in the RSA Forum is open to all national registry administrators, the CDM registry administrator and the EUTL administrator. Several experts from Parties to the Kyoto Protocol that are not included in Annex I to the Convention are also invited to attend.

53. The 25th RSA Forum was planned to take place in hybrid format on 24 October 2023.

54. The purpose of the security working group is to elaborate options for enhancing information security controls in systems supporting emissions trading under the Kyoto Protocol, as requested at SBI 40.¹⁴

55. The security working group did not meet during the reporting period as there were no specific matters to discuss. It may meet in the future to discuss and coordinate the approach to implementing Transport Layer Security version 1.3 in registry systems.

56. The ITL administrator continues to monitor the negotiations under Article 6 of the Paris Agreement for any potential impacts on the ITL.

III. Organizational arrangements and resources

57. The functions of the ITL administrator are performed by the Mitigation division of the secretariat. The Information and Communication Technology subdivision is responsible for software delivery and supporting the secretariat's information technology infrastructure, including the infrastructure sustaining the ITL.

A. Resource requirements and expenditure

58. The resource requirements for activities relating to the ITL and the ITL administrator for 2006–2007, 2008–2009, 2010–2011, 2012–2013, 2014–2015, 2016–2017, 2018–2019, 2020–2021 and 2022–2023¹⁵ were identified in the proposed programme budgets for the respective bienniums.

¹³ As per decision 12/CMP.1, para. 5.

¹⁴ FCCC/SBI/2014/8, para. 72.

¹⁵ See documents FCCC/SBI/2005/8/Add.2, FCCC/SBI/2007/8/Add.2, FCCC/SBI/2009/2/Add.3, FCCC/SBI/2011/2/Add.3, FCCC/SBI/2013/6/Add.3, FCCC/SBI/2015/3/Add.3, FCCC/SBI/2017/4/Add.2, FCCC/SBI/2019/4/Add.2 and FCCC/SBI/2021/4/Add.2 respectively.

59. The ITL budget for 2022–2023 is EUR 3,851,948, including a working capital reserve of EUR 161,030.¹⁶

60. CMP 3 requested the Executive Secretary to provide a breakdown of expenditure on developing and operating the ITL with a view to optimizing its cost structure.¹⁷ Table 1 shows the expenditure of the ITL in 2022–2023 as at 30 September 2023.

Table 1

Expenditure of the international transaction log in 2022–2023 as at 30 September 2023

	<i>Amount (EUR)</i>
Staff costs	809 930
Contractual and consultancy services	1 007 349
Expert groups	–
Staff travel	6 982
General operating expenses	6 757
Contributions to common services	85 410
Programme support costs	180 595
Total	2 097 023

61. Table 2 shows the expected percentage breakdown of estimated expenditure on contractors and consultants in 2023. Operational services are performed by the developer and operators of the ITL to sustain all its operations, such as infrastructure maintenance and the service desk. Software maintenance services are performed by the developer of the ITL to support any relevant software implementation activities, including those outlined in this report. Consultancy expenditure is incurred when the secretariat needs to consult experts in specific fields.

Table 2

Expected percentage breakdown of expenditure of the international transaction log on contractors and consultants in 2023

	<i>Share of total expenditure (%)</i>
Operational services	89
Production and disaster recovery environments	57
Cloud platform	11
Cloud management services	34
Licences	12
Service desk	21
Registry developer support	3
Security and disaster recovery testing	8
Software maintenance services	8
Consultancy	3

62. CMP 4 requested the ITL administrator to report on planned activities and the related resource requirements with a view to ensuring that adequate means are available to perform those activities.¹⁸

63. In 2023, ITL activities have focused on ensuring that registry systems operate securely and reliably, and on optimizing delivery of all operational activities.

64. Owing to the low level of operational activities during the reporting period, the staffing level of the ITL was below the requirements included in its budget.

¹⁶ See decision 9/CMP.16, paras. 1–2.

¹⁷ Decision 11/CMP.3, para. 14.

¹⁸ FCCC/KP/CMP/2008/11, para. 72.

65. The ITL staff:

(a) Provide technical services through the ITL to enable national registries and the CDM registry to perform transactions of Kyoto Protocol units;

(b) Ensure reliable hosting for the ITL and perform upgrades to the hardware and software of the ITL infrastructure, as necessary;

(c) Support national registries, the consolidated system of European Union Emissions Trading System registries, the EUTL, the CDM registry, the joint implementation and CDM information systems and the compilation and accounting database in order to maintain their connections and operations with the ITL;

(d) Initialize, perform and support go-live events for registries not yet connected;

(e) Support changes to the data exchange standards and new releases of ITL software and the SEF reporting application resulting from operational experience and changes adopted under the common operational procedure for change management;

(f) Facilitate annual reporting on and review of national registries and accounting of greenhouse gas emission units under Articles 7–8 of the Kyoto Protocol;

(g) Administer and maintain the RSA extranet;

(h) Facilitate cooperation among RSAs through the RSA Forum and its working groups to ensure that registry systems are accurate, efficient and secure;

(i) Support testing of the ITL and registry systems, including through disaster recovery testing and security audits, with a view to enhancing the reliability and security of the ITL;

(j) Make available to RSAs and relevant experts from Parties to the Kyoto Protocol that are not included in Annex I to the Convention online training and guidance materials on the general functioning of the ITL and registry systems, the common operational procedures and other relevant knowledge areas;

(k) Support the ITL administrator in meeting its obligations in accordance with all applicable decisions of the COP and the CMP;

(l) Monitor and support the negotiations under Article 6 of the Paris Agreement to identify potential impacts on the ITL, and contribute knowledge and skills relevant to registry systems and greenhouse gas emissions trading to help advance the negotiations on those matters.

B. Income for activities

66. The scale of ITL fees and status of fee payments for 2022–2023 as at 30 September 2023 are shown in annex IV. The status of fees and shortfalls as at 30 September 2023 are shown in annex V. No Parties were credited with advances towards their ITL fees for 2024. The secretariat would like to express its gratitude to the Parties that have paid their fees and remind those Parties with outstanding fees to pay them without delay.

67. Delays in receiving user fees from Parties have been noted in previous annual reports of the ITL administrator. As at 30 September 2023, EUR 5,177 was still due for 2022 from one Party and a total of EUR 198,026 was still due from Parties for 2023 (15 per cent of the fees budgeted for 2022–2023).

68. CMP 13 requested the ITL administrator to disclose in its annual report the unspent balance of the Trust Fund for the International Transaction Log from the previous biennium as at the time of publication of the report.¹⁹

69. As at 31 December 2022, the unspent balance of the Trust Fund for the International Transaction Log was USD 7,591,704, not including the operating reserve of USD 171,491.²⁰

¹⁹ Decision 7/CMP.13, para. 7.

²⁰ Preliminary figures.

C. Optimization of cost structure

70. In seeking ways to optimize the ITL cost structure, the ITL administrator is considering or continuing:

- (a) Optimizing the data hosting, technology refresh, and licence and third-party support costs of the required software and hardware;
- (b) Systematizing, documenting and addressing typical incident, user error and user problem scenarios, while providing proactive guidance to registry systems, to minimize their reoccurrence and associated remedial costs;
- (c) Simplifying registry testing arrangements, registry contact management and digital certificate management with the goal of minimizing associated costs;
- (d) Engaging RSAs in the centralized annual review of national registries, thereby avoiding the cost of consultants and minimizing travel costs;
- (e) Providing options for virtual participation and remote meetings with the goal of reducing travel and meeting costs;
- (f) Identifying ways to employ secretariat staff instead of consultants or contractors, where possible, including options for consolidating activities related to the ITL service desk, software development and application support.

71. Optimizations resulting from the review in the previous reporting period of the processes and functions underpinning the ITL have led or will lead to significant efficiency gains:

- (a) The SIAR process has been simplified for the true-up period by focusing on the information on accounting of Kyoto Protocol units carried in the SEF tables, which continue to be assessed on an annual basis under the SIAR process, and ensuring proactive communication with Parties in order to minimize discrepancies between reported information and the ITL records before commencing the expert review process under Article 8 of the Kyoto Protocol. These simplifications save staff time, enabling them to perform tasks that would otherwise be carried out by consultants or contractors, such as managing digital certificates;
- (b) The management of digital certificates has been streamlined: the certificates are now created and managed by the ITL administrator and the processes for their issuance, renewal and revocation have also been internalized, thereby saving the costs of involving external contractors;
- (c) The frequency of security audits and/or disaster recovery testing will be adapted in line with the decrease in operational support needed for the future.

Annex I

Registry status as at 30 September 2023

<i>Registry</i>	<i>Issue date of independent assessment report</i>	<i>Date of live connection to the ITL</i>
CDM	Not applicable	14 November 2007
Australia	19 December 2008	19 December 2008
Austria	12 July 2007	16 October 2008
Belarus	–	–
Belgium	7 December 2007	16 October 2008
Bulgaria	10 April 2008	16 October 2008
Croatia	30 April 2008	11 December 2009
Cyprus	1 February 2017	4 November 2016
Czechia	1 August 2007	16 October 2008
Denmark	16 October 2008	16 October 2008
Estonia	12 November 2007	16 October 2008
European Union	1 February 2008	16 October 2008
Finland	16 November 2007	16 October 2008
France	9 November 2007	16 October 2008
Germany	23 November 2007	16 October 2008
Greece	27 September 2007	16 October 2008
Hungary	8 August 2007	11 July 2008
Iceland	3 January 2008	6 May 2010
Ireland	19 September 2007	16 October 2008
Italy	5 December 2007	16 October 2008
Japan	9 July 2007	14 November 2007
Kazakhstan	–	–
Latvia	13 November 2007	16 October 2008
Liechtenstein	7 December 2007	21 October 2008
Lithuania	29 October 2007	16 October 2008
Luxembourg	7 December 2007	16 October 2008
Malta	22 February 2017	4 November 2016
Monaco	9 April 2008	30 July 2015
Netherlands (Kingdom of the)	19 September 2007	16 October 2008
New Zealand	27 July 2007	3 December 2007
Norway	27 September 2007	21 October 2008
Poland	5 December 2007	16 October 2008
Portugal	24 October 2007	16 October 2008
Romania	30 April 2008	16 October 2008
Russian Federation ^a	12 November 2007	4 March 2008
Slovakia	13 September 2007	16 October 2008
Slovenia	25 October 2007	16 October 2008
Spain	8 October 2007	16 October 2008
Sweden	9 November 2007	16 October 2008
Switzerland	8 August 2007	4 December 2007
Ukraine	10 December 2007	28 October 2008
United Kingdom	16 August 2007	16 October 2008

^a Disconnected from the ITL on 30 December 2015 in accordance with decision 8/CMP.11.

Annex II

Number of transactions proposed to the international transaction log between 1 October 2022 and 30 September 2023

<i>Registry</i>	<i>Acquisition^a</i>	<i>Transfer^b</i>	<i>Forwarding^c</i>	<i>Internal transfer^d</i>	<i>Issuance^e</i>	<i>Retirement^f</i>	<i>Cancellation^g</i>	<i>Total</i>
CDM	7	14	215	0	446	0	4 701	5 383
Australia	85	72	0	0	9	2	1 012	1 180
Austria	5	3	0	0	2	3	4	17
Belarus ^h	0	0	0	0	0	0	0	0
Belgium	3	0	0	0	2	1	2	8
Bulgaria	2	2	0	0	1	3	4	12
Croatia	2	0	0	0	2	1	1	6
Cyprus	1	0	0	0	2	1	1	5
Czechia	2	3	0	0	1	2	2	10
Denmark	4	3	0	0	19	2	10	38
Estonia	1	0	0	0	2	1	2	6
European Union	8	160	0	0	0	1	372	541
Finland	10	0	0	0	2	3	11	26
France	37	6	0	0	1	1	81	126
Germany	82	27	0	0	3	2	662	776
Greece	2	0	0	0	2	1	1	6
Hungary	1	2	0	0	15	2	8	28
Iceland	1	0	0	0	3	1	1	6
Ireland	4	1	0	5	3	2	4	19
Italy	11	0	0	0	4	2	38	55
Japan	0	0	0	0	0	0	0	0
Kazakhstan ^h	0	0	0	0	0	0	0	0
Latvia	2	0	0	0	2	1	1	6
Liechtenstein	0	0	0	0	1	0	2	3
Lithuania	2	0	0	0	2	3	1	8
Luxembourg	1	0	0	0	2	1	1	5
Malta	17	1	0	0	1	3	19	41
Monaco	10	0	0	0	0	2	1	13
Netherlands (Kingdom of the)	57	42	0	0	2	2	204	307
New Zealand	0	0	0	0	0	0	145	145
Norway	9	2	0	0	3	5	40	59
Poland	1	0	0	0	2	2	1	6
Portugal	1	0	0	2	3	3	2	11
Romania	2	1	0	0	3	1	2	9
Russian Federation ^h	0	0	0	0	0	0	0	0
Slovakia	6	4	0	0	1	1	4	16
Slovenia	14	14	0	0	0	2	5	35
Spain	64	3	0	1	3	1	92	164
Sweden	4	3	0	1	2	1	55	66
Switzerland	53	106	0	236	1	4	526	926
Ukraine	0	0	0	0	0	0	0	0
United Kingdom	36	92	0	27	4	1	55	215
Total	547	561	215	272	551	64	8 073	10 283

Note: Completed transactions of AAUs, ERUs, RMUs, CERs, ICERs and tCERs have been accounted for.

^a Acquisition from another national registry. See decision 13/CMP.1, annex, para. 30.

^b Transfer to another national registry. See decision 13/CMP.1, annex, para. 30.

^c Forwarding from the CDM registry to a national registry. See decision 3/CMP.1, annex, para. 66(b). Transfers from the CDM registry to a national registry in support of the Adaptation Fund are excluded.

^d Transfer within the registry. See decision 13/CMP.1, annex, para. 30.

^e See decisions 3/CMP.1, annex, paras. 64–66; 5/CMP.1, annex, paras. 36–37; and 13/CMP.1, annex, paras. 23–29. Issuance of ERUs by converting AAUs or RMUs is included.

^f See decision 13/CMP.1, annex, para. 34.

^g See decision 13/CMP.1, annex, para. 33.

^h Not currently connected to the ITL.

Annex III

Number of Kyoto Protocol units subject to transactions proposed to the international transaction log between 1 October 2022 and 30 September 2023

<i>Registry</i>	<i>Acquisition^a</i>	<i>Transfer^b</i>	<i>Net transfer^c</i>	<i>Forwarding^d</i>	<i>Internal transfer^e</i>	<i>Issuance^f</i>	<i>Retirement^g</i>	<i>Cancellation^h</i>
CDM	45 792 646	1 314 415	-44 478 231	39 541 749	0	113 577 224	0	30 384 625
Australia	14 000 395	8 378 505	-5 621 890	0	0	632 036 348	4 316 006 920	997 522 340
Austria	13 438 913	12 868 000	-570 913	0	0	24 137 192	396 956 300	4 085 719
Belarus ⁱ	0	0	0	0	0	0	0	0
Belgium	20 469 521	0	-20 469 521	0	0	4 730 722	573 098 344	4 971 523
Bulgaria	126 141 099	5 261 509	-120 879 590	0	0	8 836 858	201 162 256	18 151 869
Croatia	7 182 633	0	-7 182 633	0	0	9 552 114	126 825 797	193 896
Cyprus	1 568 619	0	-1 568 619	0	0	311 571	33 089 406	1 980
Czechia	133 267 103	3 869 509	-129 397 594	0	0	4 979 889	485 382 500	40 245 978
Denmark	13 258 396	195 025	-13 063 371	0	0	49 427 287	260 699 600	5 171 295
Estonia	50 771 706	0	-50 771 706	0	0	13 031 984	48 668 825	4 728 072
European Union	20 136 364	2 231 946 083	2 211 809 719	0	0	0	13 552 734 341	1 803 198
Finland	9 390 841	0	-9 390 841	0	0	24 382 727	240 726 800	44 320 442
France	102 350 540	73 495	-102 277 045	0	0	110 315 337	2 763 701 567	190 729 161
Germany	212 687 591	1 663 773	-211 023 818	0	0	397 774 879	3 597 811 703	42 993 027
Greece	15 894 130	0	-15 894 130	0	0	3 863 685	356 720 000	395 926
Hungary	107 256 218	3 867 009	-103 389 209	0	0	27 203 353	335 550 700	3 694 449
Iceland	3 409 949	0	-3 409 949	0	0	4 302 343	23 030 200	3 217
Ireland	18 424 293	2 919 913	-15 504 380	0	2 931 001	29 811 058	350 213 300	4 494 554
Italy	79 925 662	0	-79 925 662	0	0	137 995 820	2 160 408 200	16 509 151
Japan	0	0	0	0	0	0	0	0
Kazakhstan ⁱ	0	0	0	0	0	0	0	0
Latvia	40 100 861	0	-40 100 861	0	0	9 261 412	71 363 359	7 739 905
Liechtenstein	0	0	0	0	0	2 672	0	50 746
Lithuania	70 430 898	0	-70 430 898	0	0	11 383 472	109 302 000	2 821 176
Luxembourg	2 406 891	0	-2 406 891	0	0	44 072	70 101 409	30 874
Malta	5 354 623	20 000	-5 334 623	0	0	110	10 723 300	244 930

<i>Registry</i>	<i>Acquisition^a</i>	<i>Transfer^b</i>	<i>Net transfer^c</i>	<i>Forwarding^d</i>	<i>Internal transfer^e</i>	<i>Issuance^f</i>	<i>Retirement^g</i>	<i>Cancellation^h</i>
Monaco	38 194	0	-38 194	0	0	0	675 830	16 900
Netherlands (Kingdom of the)	38 957 890	4 432 357	-34 525 533	0	0	8 155 292	797 946 200	10 632 037
New Zealand	0	0	0	0	0	0	0	28 030 459
Norway	207 801	69 274	-138 527	0	0	23 192 508	421 856 184	24 393 046
Poland	298 687 162	0	-298 687 162	0	0	32 387 569	1 591 793 501	16 046 798
Portugal	13 296 395	0	-13 296 395	0	2 377 400	69 957 094	320 455 827	45 936 983
Romania	490 413 095	171 350	-490 241 745	0	0	81 738 507	598 268 601	16 736 486
Russian Federation ⁱ	0	0	0	0	0	0	0	0
Slovakia	75 020 383	7 714 177	-67 306 206	0	0	4 303 708	161 986 300	30 663 332
Slovenia	18 160 310	1 287 216	-16 873 094	0	0	0	85 834 000	27 046 506
Spain	60 027 428	90 011	-59 937 417	0	446	79 353 700	1 584 862 377	9 497 884
Sweden	13 244 827	83 213	-13 161 614	0	41 605	28 719 374	261 305 427	88 711 064
Switzerland	12 344 464	11 339 020	-1 005 444	0	22 443 935	6 031 921	382 788 033	15 987 036
Ukraine	0	0	0	0	0	0	0	0
United Kingdom	184 505 633	22 314 035	-162 191 598	0	2 745 663 102	36 729 506	2 610 978 300	21 591 420
Total	2 318 563 474	2 319 877 889	1 314 415	39 541 749	2 773 457 489	1 987 531 308	38 903 027 407	1 756 578 004

Note: Completed transactions of AAUs, ERUs, RMUs, CERs, ICERs and tCERs have been accounted for.

^a Acquisition from another national registry. See decision 13/CMP.1, annex, para. 30.

^b Transfer to another national registry. See decision 13/CMP.1, annex, para. 30.

^c Net transfer is equal to transfer minus acquisition.

^d Forwarding from the CDM registry to a national registry. See decision 3/CMP.1, annex, para. 66(b). Transfers from the CDM registry to a national registry in support of the Adaptation Fund are excluded.

^e Transfer within the registry. See decision 13/CMP.1, annex, para. 30.

^f See decisions 3/CMP.1, annex, paras. 64–66; 5/CMP.1, annex, paras. 36–37; and 13/CMP.1, annex, paras. 23–29. Issuance of ERUs by converting AAUs or RMUs is included.

^g See decision 13/CMP.1, annex, para. 34.

^h See decision 13/CMP.1, annex, para. 33.

ⁱ Not currently connected to the ITL.

Annex IV

Scale of international transaction log fees and status of fee payments for 2022–2023 as at 30 September 2023

Party	Scale of fees (%)	2022				2023			
		Budgeted (EUR)	Balance of fees after credit from unspent balances (EUR)	Received (EUR)	Outstanding (EUR)	Budgeted (EUR)	Balance of fees after credit from unspent balances (EUR)	Received (EUR)	Outstanding (EUR)
Australia	2.841	56 204	19 726	19 726	0	56 204	19 726	19 726	0
Austria	1.588	31 422	11 029	11 029	0	31 422	11 029	11 029	0
Belarus ^a	0.073	–	–	–	–	–	–	–	–
Belgium	1.973	39 035	13 700	13 700	0	39 035	13 700	13 700	0
Bulgaria	0.036	703	247	247	0	703	247	247	0
Croatia	0.079	1 572	552	552	0	1 572	552	552	0
Cyprus	0.061	1 207	424	424	0	1 207	424	424	0
Czechia	0.503	9 950	3 492	3 492	0	9 950	3 492	3 492	0
Denmark	1.323	26 168	9 184	9 184	0	26 168	9 184	9 184	0
Estonia	0.028	559	196	196	0	559	196	196	0
European Union	2.685	53 122	18 645	18 645	0	53 122	18 645	18 645	0
Finland	1.009	19 962	7 006	7 006	0	19 962	7 006	7 006	0
France	10.667	211 061	74 078	74 078	0	211 061	74 078	74 078	0
Germany	15.350	303 714	106 597	106 597	0	303 714	106 597	106 597	0
Greece	1.065	21 079	7 398	7 398	0	21 079	7 398	6 126	0
Hungary	0.437	8 647	3 035	3 035	0	8 647	3 035	3 035	0
Iceland	0.737	14 584	5 119	5 119	0	14 584	5 119	5 119	0
Ireland	0.797	15 763	5 532	5 532	0	15 763	5 532	5 532	0
Italy	9.090	179 847	63 122	63 122	0	179 847	63 122	63 122	0
Japan	14.939	295 585	103 744	0	0	295 585	103 744	0	103 744
Kazakhstan ^a	0.157	–	–	–	–	–	–	–	–
Latvia	0.032	641	225	225	0	641	225	225	0
Liechtenstein	0.188	3 724	1 307	1 307	0	3 724	1 307	1 307	0
Lithuania	0.055	1 096	385	385	0	1 096	385	385	0
Luxembourg	0.153	3 020	1 060	1 060	0	3 020	1 060	1 060	0
Malta	0.021	416	146	146	0	416	146	146	0
Monaco	0.181	3 579	1 256	1 256	0	3 579	1 256	0	0
Netherlands (Kingdom of the)	3.352	66 320	23 277	23 277	0	66 320	23 277	23 277	0
New Zealand	0.961	19 011	6 672	6 672	0	19 011	6 672	6 672	0
Norway	2.319	45 882	16 104	16 104	0	45 882	16 104	16 104	0
Poland	0.896	17 728	6 222	6 222	0	17 728	6 222	6 222	0
Portugal	0.943	18 659	6 549	6 549	0	18 659	6 549	0	6 549
Romania	0.125	2 482	871	0	0	2 482	871	871	0
Russian Federation ^a	2.743	–	–	–	–	–	–	–	–
Slovakia	0.113	2 234	784	784	0	2 234	784	784	0
Slovenia	0.171	3 393	1 191	1 191	0	3 393	1 191	1 191	0
Spain	5.311	105 086	36 883	36 883	0	105 086	36 883	36 883	0
Sweden	1.917	37 938	13 316	13 316	0	37 938	13 316	13 316	0
Switzerland	2.760	54 611	19 167	19 167	0	54 611	19 167	19 167	0

<i>Party</i>	<i>Scale of fees (%)</i>	<i>2022</i>				<i>2023</i>			
		<i>Budgeted (EUR)</i>	<i>Balance of fees after credit from unspent balances (EUR)</i>	<i>Received (EUR)</i>	<i>Outstanding (EUR)</i>	<i>Budgeted (EUR)</i>	<i>Balance of fees after credit from unspent balances (EUR)</i>	<i>Received (EUR)</i>	<i>Outstanding (EUR)</i>
Ukraine	0.745	14 749	5 177	0	5 177	14 749	5 177	0	5 177
United Kingdom	11.888	235 221	82 556	82 556	0	235 221	82 556	0	82 556
Total	–	1 925 974	675 974	566 182	5 177	1 925 974	675 974	530 691	198 026

^a Not currently connected to the ITL but will be subject to ITL fees in case of connection or reconnection to the ITL in accordance with decision 5/CMP.15, paras. 11–13.

Annex V

Fees for international transaction log activities and cumulative shortfall

Table V.1

Fees for international transaction log activities in 2007–2009 and cumulative shortfall as at 30 September 2023

(United States dollars)

	2007	2008	2009
Fees budgeted	2 500 000	4 518 060	4 745 741
Fees received	1 963 788	4 518 060	4 745 741
Shortfall	536 212	0	0
Cumulative shortfall	536 212	536 212	536 212

Table V.2

Fees for international transaction log activities in 2010–2016 and cumulative shortfall as at 30 September 2023

(Euros)

	2010 ^a	2011	2012	2013	2014	2015	2016
Fees budgeted original	3 014 423	3 014 423	2 885 010	2 885 010	2 740 760	2 740 760	2 675 679 ^b
Fees budgeted revised	–	–	–	–	–	–	2 602 275 ^c
Fees received	3 014 423	3 014 423	2 885 010	2 759 483	2 740 760	2 740 760	2 602 275
Shortfall	0	0	0	125 527 ^d	0	0	0
Cumulative shortfall	374 812	374 812	374 812	500 339	374 812	374 812	374 812

^a The shortfall for 2009 in United States dollars was carried over to 2010 in euros using the average exchange rate of EUR 0.699 applicable on the day of conversion.

^b The amount of fees budgeted for the biennium 2016–2017 as per decision 8/CMP.11.

^c The amount of fees budgeted for the biennium 2016–2017 decreased resulting from the disconnection of a Party from the ITL in 2015.

^d Canada's shortfall of EUR 125,527 was not carried over to 2014 and the following years owing to Canada's withdrawal from the Kyoto Protocol and the resulting disconnection of its registry from the ITL.

Table V.3

Fees for international transaction log activities in 2017–2023 and cumulative shortfall as at 30 September 2023

(Euros)

	2017	2018	2019	2020	2021	2022	2023
Fees budgeted original	2 675 675	1 352 260	1 352 260	1 055 388	1 055 388	675 974	675 974
Fees budgeted revised	2 602 275	–	–	–	–	–	–
Fees received	2 602 275	1 352 260	1 352 260	1 025 918	1 036 814	670 797	477 948
Shortfall	0	0	0	0	0	5 177	198 026
Cumulative shortfall	374 812	374 812	374 812	374 812	374 812	379 989	578 015