



## OPERATIONS AND TECHNOLOGY COMMITTEE

*Original: English*

**PAPU/ATC/OTC/01/2025 - Doc No. 04**

**SUPPLY CHAIN WORKING GROUP  
18<sup>TH</sup> JUNE 2025**

### **REPORT ON THE ANALYSIS OF THE STATUS OF THE QUESTIONNAIRE ON THE GLOBAL MONITORING SYSTEM (GMS) PARTICIPATION IN AFRICA**

**Agenda Item 4b.**

<b>1. Subject:</b> <ul style="list-style-type: none"><li>• <b>Analysis of GMS Questionnaire</b></li></ul>	<b>References/Paragraphs</b> <ul style="list-style-type: none"><li>• PAPU Circular REF: CL/PAPU/GS/OT/QSO/003</li><li>• GMS Questionnaire</li></ul>
<b>2. Decisions Expected:</b> <ul style="list-style-type: none"><li>• Adopt the Report on the Analyses of the GMS Questionnaire.</li><li>• Take note of the Recommendations.</li></ul>	

## **1.0 INTRODUCTION**

The Global Monitoring System (GMS) is a quality-of-service measurement system for the untracked letter post service managed by the UPU International Bureau. Its primary objective is to provide Designated Operators with accurate, high-quality operational results that can be used to make informed decisions on operational matters and quality improvement. The results can also be used to determine terminal dues performance bonus remuneration for the Quality-of-Service Link to Terminal Dues System.

The PAPU General Secretariat circulated a questionnaire on the Global Monitoring System (GMS) Participation in Africa in pursuit of implementing the Operations and Technology Action Plan for 2022-2025. Since the PAPU 4-Year and the UPU Congress Cycles are ending, this is the opportune time to reflect on what has been achieved to draw appropriate programmes and plans for the forthcoming period.

The questionnaire aimed to elicit and collate information on GMS participation by Designated Operators to ascertain the status, identify shortcomings, proffer solutions, and chart the way forward.

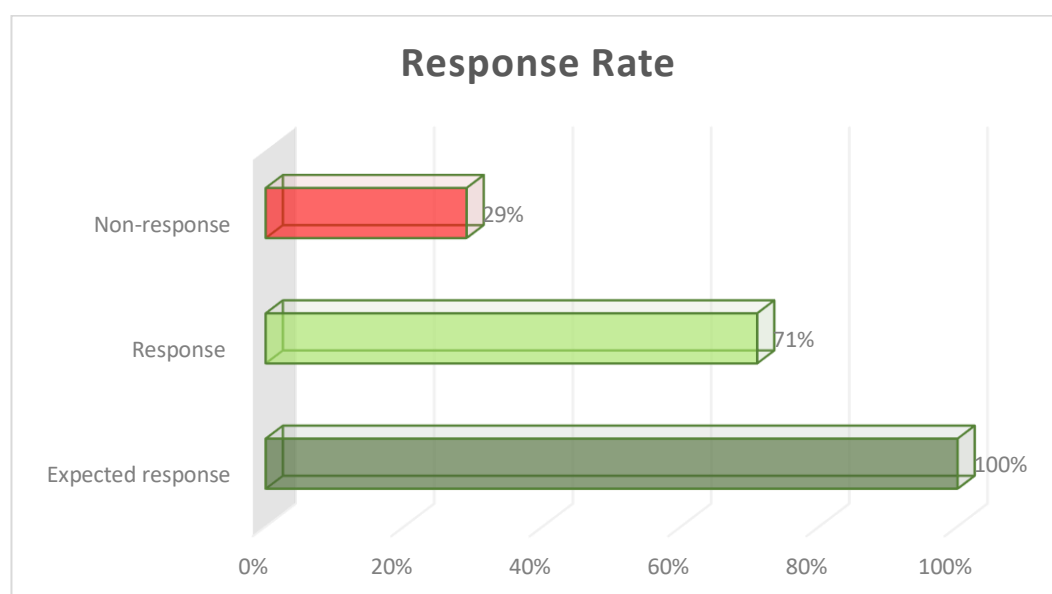
## **2.0 QUESTIONNAIRE ON THE STATUS OF GMS PARTICIPATION**

The questionnaire was sent to Member States via a Circular Letter under Ref/ CL/PAPU/GS/OT/QSO/017 on 17<sup>th</sup> March 2025, setting 9<sup>th</sup> May 2025 as the deadline for submitting responses. Reminders and follow-ups were conducted to ensure that more Designated Operators submitted their responses.

## 2.1 Response Rate

The diagram below shows the response rate for the GMS questionnaire.

**Diagram 1: Response to the GMS questionnaire**



Thirty-two (32) responses to the questionnaire were received from PAPU Member States, representing 71% of the membership. The responses were received from the following Members: **Algeria, Angola, Benin, Botswana, Burkina Faso, Cameroon, Comoros, Cote d'Ivoire, Democratic Republic of Congo, Egypt, Eswatini, Ethiopia, Gambia, Ghana, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Morocco, Namibia, Nigeria, Senegal, South Africa, Sudan, Tanzania, Tunisia, Uganda, Zambia, and Zimbabwe.**

South Sudan also responded to the questionnaire as an observer.

## 3.0 ANALYSIS OF RESPONSES TO THE GMS QUESTIONNAIRE

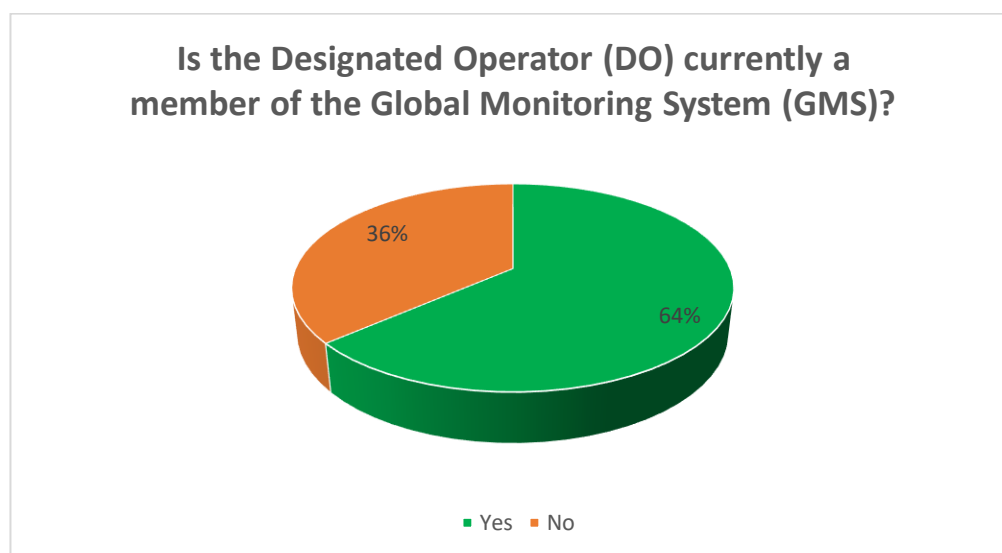
- The responses to the questionnaire were analyzed, and the responses are summarized in this report.
- The detailed responses from each Designated Operator are contained in **Annex 1**.

### 3.1 Is the Designated Operator (DO) currently a Global Monitoring System (GMS) member?

3.1.1 The Global Monitoring System (GMS) is a measurement system that uses Radio Frequency Identification (RFID) technology to monitor the quality of service for untracked items. Its primary objective is to provide Designated Operators (DOs) with accurate, high-quality operational results. The results can be used to determine remuneration for the Quality-of-Service Link to terminal dues and to contribute to timely, informed, and decisive decisions on operational and quality improvement issues.

- 3.1.2 A reporting system, GMS Statistical System for Analysis and Reports (**GMS STAR**), was developed by the Postal Technology Centre of the UPU to provide the test results. GMS STAR executes calculations on the test data, performs analyses, and produces reports on the delivery performance of each DO.
- 3.1.3 The graph in Diagram 2 below shows how African Designated Operators use GMS to monitor the quality of service for letter post items.

**Diagram 2: Current GMS Membership**



- Twenty-one (21) Designated Operators, representing 64% of the respondents, are current members of GMS.
- The current members are **Benin, Botswana, Burkina Faso, Cameroon, Comoros, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Eswatini, Ghana, Kenya, Lesotho, Malawi, Mali, Morocco, Nigeria, Senegal, Tanzania, Tunisia, Uganda, and Zimbabwe.**
- Twelve (12) DOs are currently not members of GMS.
- The varied deployment of GMS across the PAPU Membership may imply different intervention capabilities for situations relating to international mail delays, making the whole mail exchange pipeline susceptible to poor quality of service.

### **3.2 If the Answer to Question 1 above is NO, has the DO Ever Been a Member of the GMS?**

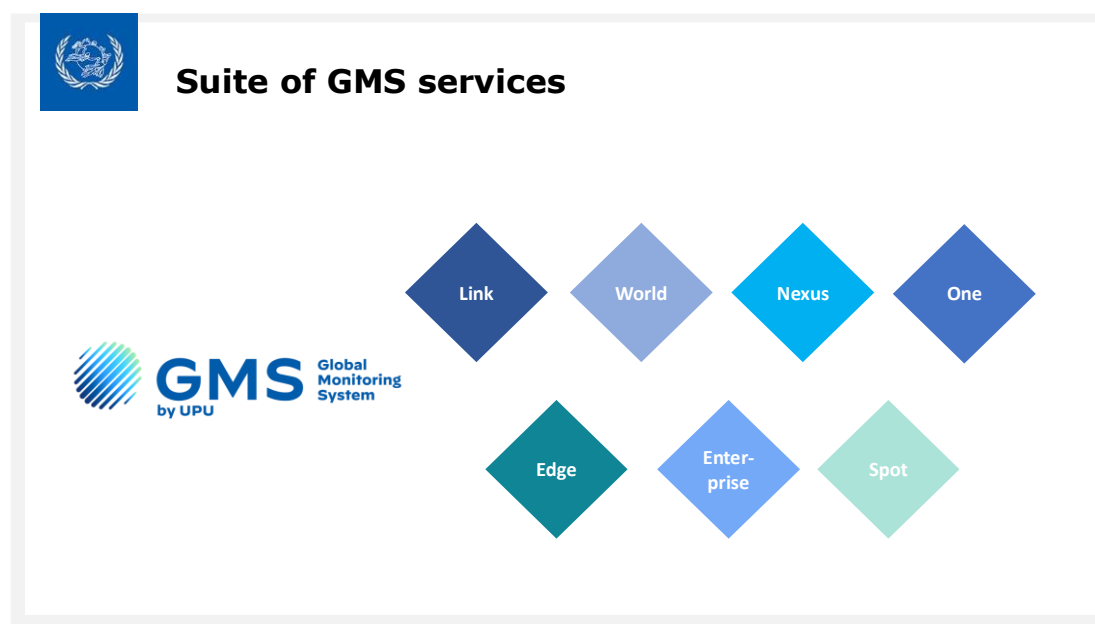
- 3.2.1 Of the twelve DOs not current members of GMS, five (5), namely Angola, South Africa, Madagascar, Namibia, and Zambia, have been members before.

### **3.3 Has the Designated Operator Participated in the Following GMS Services:**

- GMS World**
- GMS Link**
- GMS Edge**

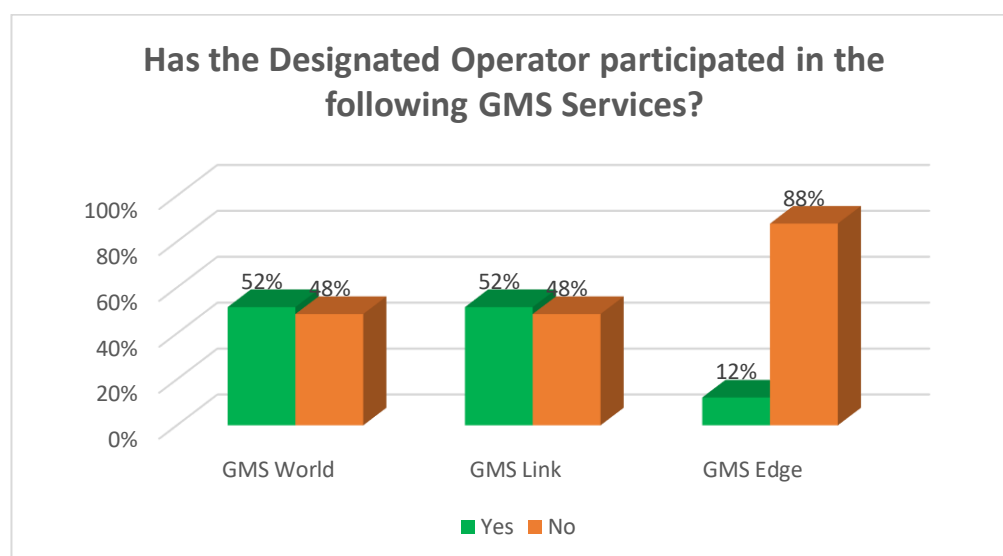
- 3.3.1 The Global Monitoring system has different services to measure service quality for different segments of the supply chain. They are in the diagram below:

**Diagram 3: GMS Services**



- 3.3.2 Over the years, DOs have utilized GMS World and GMS Link. GMS World measures end-to-end quality of service for ordinary letter post service, while GMS Link measures performance for inbound letter post items. GMS Link can be a performance measurement for Quality Link to Terminal Dues. GMS one tests the quality of service in the domestic network.
- 3.3.3 In 2019, the POC approved the GMS Business Plan, which promotes the use of RFID infrastructure to monitor and track physical receptacles in real time, in combination with electronic data interchange (EDI) barcodes, to enhance visibility in the exchange of international mail receptacles across the global network.
- 3.3.4 The POC further extended the GMS Business Plan to the Dubai Cycle with various new services. Apart from monitoring only ordinary items, such as mail containing documents, GMS will also be extended to items containing goods.
- 3.3.5 GMS Edge was launched in 2024 to monitor performance at the dispatch level. The UPU deployed several pilots and a pre-implementation project using GMS Edge. In the future, GMS Edge will also be used to monitor the quality of service for e-commerce items.
- 3.3.6 The graph in Diagram 4 below shows the utilization of the three main services for monitoring international mail by Designated Operators in Africa.

**Diagram 4: Participation in GMS Services**



- i) Seventeen (17) DOs representing 52% have participated in GMS World.
- ii) Seventeen (17) DOs representing 52% have also participated in GMS Link.
- iii) Four (4) DOs, namely, Comoros, Eswatini, Mali, and Uganda, representing 12%, have participated in GMS Edge.

### 3.4 For How Long has the DO been a Member of the GMS?

The UPU sends out circulars annually requesting Designated Operators to join the system. Once a DO opts to join the programme, they become members, and membership is renewable annually.

The table below shows the duration of each Designated Operator's GMS participation.

**Table 1: GMS Membership**

S/N	Designated Operator	Duration		
		Years	From	To
1.	Benin	16	2009	2025
2.	Burkina Faso	17	2008	2025
3.	Cameroon	15	2010	2025
4.	Comoros	1	2024	2025
5.	Cote d'Ivoire	8	2017	2025
6.	DRC	6	2019	2025
7.	Eswatini	9	2016	2025
8.	Ethiopia	15+	No data	2025
9.	Ghana	15	2010	2025
10.	Kenya	13	2012	2025
11.	Lesotho	6	2015	2020

12.	Madagascar	No data	No data	2023
13.	Namibia	10	2013	2023
14.	Nigeria	11	2015	2025
15.	Senegal	6	2018	2024
16.	South Africa	3	2011	2014
17.	Tanzania	7	2018	2025
18.	Tunisia	16	2009	2025
19.	Uganda	15	2010	2025
20.	Zambia	2	2013	2015
21.	Zimbabwe	13	2012	2025

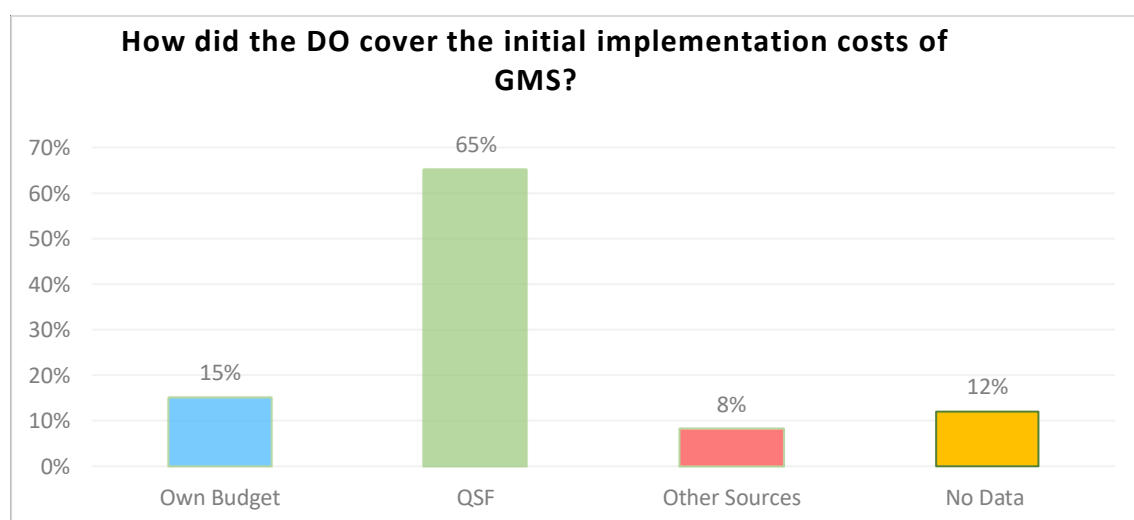
- i) Angola, Botswana, Mali, Malawi, and Morocco did not provide information on when they joined GMS, and the duration of their membership.
- ii) Burkina Faso, Benin, Tunisia, Ethiopia, Uganda, Cameroon, and Ghana have participated in GMS for more than fifteen years, having joined between 2008 and 2010.
- iii) Madagascar, Zambia, and South Africa joined the system for only a year, two years, and three years, respectively.

### 3.5 How Did the DO Cover the Initial Implementation Costs of GMS?

3.5.1 Participation in the GMS measurement programme requires installing RFID equipment at the mail units and offices of exchange. Designated Operators may finance the equipment's initial installation using various funding sources at their disposal. They may use their resources or Quality of Service Fund (QSF) resources to fund the Project if they have enough available balances in the fund. DOs eligible for funding from the QSF Global Project prepared on their behalf by the International Bureau each year may also finance their participation costs from the project.

3.5.2 The graph in Diagram 5 below shows how the participating DOs in Africa funded the initial implementation costs.

**Diagram 5: GMS Initial Implementation Funding**



- Four DOs representing 12% of the DOs that have participated in GMS, namely Senegal, South Africa, Tanzania, and Zimbabwe, financed their GMS participation using their budget resources.
- Seventeen (17) Designated Operators representing 65% of DOs participating in GMS utilized Quality of Service Fund resources to cover GMS costs.
- Angola and Cameroon funded their GMS participation neither from their budget nor QSF, implying they used other resources.
- Botswana and Madagascar did not provide information on their sources of funding.

### 3.6 What was the Amount for the Initial Implementation Cost?

The table below shows the initial GMS implementation costs paid by DOs.

**Table 2: Initial Implementation Costs**

S/N	Designated Operator of	Amount (USD)
1.	Cote D'Ivoire	8 958.00
2.	DRC	30 015.00
3.	Eswatini	41165.00
4.	Kenya	14 000 .00
5.	Ghana	101 200.00
6.	Namibia	17 886.00
7.	Nigeria	37 980.00
8.	Tunisia	119 000.00
9.	Zimbabwe	45 313.00

- Only nine (9) DOs, representing 38% of the DOs that participated in GMS, provided information on their initial GMS implementation costs.
- The cost ranged from USD 9,000.00 to USD 119,000.00.
- Tunisia participated in GMS Domestic, which cost an **extra USD 320,950.00**.

The observation is that the cost of GMS participation is relatively high and steep for the Posts.

### 3.7 How Much were the Annual Subscription Fees for the Past Three (3) Years?

Designated Operators who have implemented GMS to measure quality of service pay the Postal Technology Centre (PTC) annual subscription fees to use the system.

The table below shows the annual GMS subscription fees paid by DOs in the past three years.

**Table 3: Annual Subscription Fees**

S/N	Designated Operator	2024 (USD)	2023 (USD)	2022 (USD)
1.	Benin	8 699.64	8 470.25	8 470.25
2.	Botswana	10 343.00	11 425.00	11 425.00
3.	Cote d'Ivoire	19 726.00	-	-
4.	Eswatini	12 863.00	12 863.00	11 803.00
5.	Ethiopia	-	12 1275.00	12 125.00

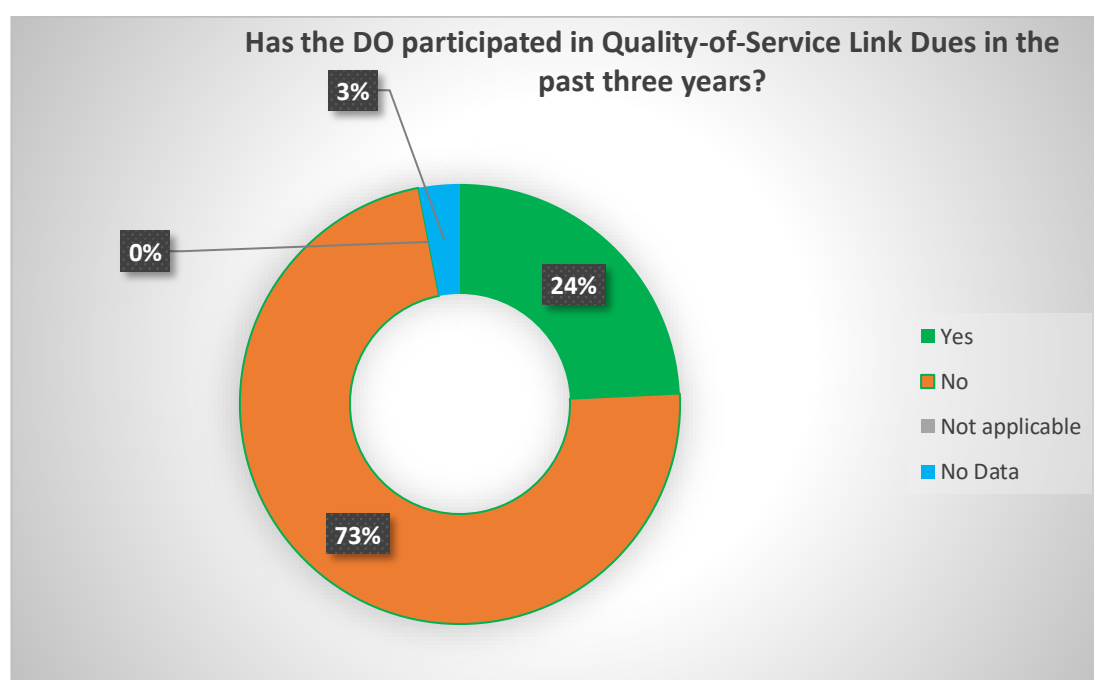
6.	Kenya	14 000.00	14 000.00	14 000.00
7.	Ghana	36 140.00	35 070.00	34 952.00
8.	Namibia	-	22 850.00	22 850.00
9.	Nigeria	0.00	0.00	37 980.00
10.	Tunisia	27 023.00	26 675.00	26 975.00

- i) Ten (10) DOs representing 42% of the DOs participating in GMS provided information on the subscriptions paid in the last three years.
- ii) From the submissions, GMS annual subscriptions are generally high, ranging from USD 8,000.00 to USD 38,000.00.
- iii) The subscriptions vary per country depending on their mail volumes.

### 3.8 Has the DO participated in Quality-of-Service Link to Terminal Dues in the Past Three Years?

- 3.8.1 The UPU International Bureau sends out a Circular each year requesting Designated Operators to indicate their participation in the Quality-of-Service Link to Terminal Dues system.
- 3.8.2 After the 28<sup>th</sup> UPU Congress, **'remuneration shall be based on quality performance in the country of destination'** as per Congress Proposal 20.27 B.1. DOs shall base their terminal dues on quality-of-service performance and participate in a UPU-agreed quality measurement system compliant with the UPU Global Monitoring System (GMS) technical design.
- 3.8.3 Exceptionally, DOs whose total annual inward mail volume is less than 100 tons may request exemption from the quality link to terminal dues, which means they opt to receive and pay all DOs the base terminal dues without the adjustment based on quality-of-service performance.
- 3.8.4 The graph below shows the DOs' participation in the Quality-of-Service Link to Terminal Dues.

**Diagram 6: Quality of Service Link to Terminal Dues Participation**





- i) Eight (8) DOs representing 24% have participated in the quality of service on an optional basis, namely, Benin, Botswana, Burkina Faso, Côte d'Ivoire, Eswatini, Ghana, Nigeria, and Tanzania.
- ii) 74% of the DOs have not participated in the Quality-of-Service Link to Terminal Dues, opting to be exempted from the participation due to inbound low volumes below the 100-ton threshold.

### 3.9 If Participating in the Quality-of-Service Link to Terminal Dues using the GMS Link, has the DO ever achieved the Target and received the Additional Bonus Payment?

- 3.9.1 Out of the eight (8) DOs above that have participated in Quality-of-Service Link to Terminal Dues, only Eswatini indicated that they have achieved the target and received the additional bonus payment.

### 3.10 How Much Bonus has the DO Received Per Year from Quality-of-Service Link to Terminal Dues for the Last Three Years?

- i) The Designated Operator of Eswatini that has qualified for the quality-linked performance bonus did not specify the amount they received from the Quality-of-Service Link to Terminal Dues.
- ii) None of the other DOs received any bonus since they did not meet the performance targets.

### 3.11 What were the Inbound mail volumes for the past three years?

For Designated Operators to be exempted from the mandatory participation in Quality-of-Service Link to terminal dues, their inbound mail volume should be less than 100 tons.

The table below shows the inbound mail volumes for the DOs in Africa.

**Table 4.1: Inbound Mail Volume (kg)**

S/N	Designated Operator	2024 (kg)	2023 (kg)	2022 (kg)
1.	Angola	92 829.00	76 822.00	93 163.00
2.	Benin	668.47	522.70	551.38
3.	Burkina Faso	74 154.00	70 393.00	38 768.00
4.	Cameroon	13 637.00	11 691.00	10 410.00
5.	Comoros	6 232.63	2 737.20	2 091.45
6.	Cote d'Ivoire	58 829.00	76 839	5 629
7.	DRC	1 737.00	1 094.00	727.00
8.	Egypt	49 379.58	41 103.64	22 011.87
9.	Eswatini	2 532.75	3 814.23	4 408.70
10.	Ethiopia	<b>294 328.00</b>	17 362.00	14 634.00
11.	Kenya	18 566.00	11 715.00	17 810.00
12.	Lesotho	3 339.40	2 375.14	3 973.78
13.	Liberia	6 096.30	7 402.7	7 706.8
14.	Ghana	47 541.10	44 997.23	51 717.50
15.	Madagascar	<b>232 932.44</b>	<b>223 720.54</b>	34 973.79
16.	Malawi	76 668.00	63 768.00	89 448.00
17.	Mali	100.00	105.00	95.00
18.	Morocco	137 296	154 965	326 214
19.	Namibia	50 066.09	24 641.96	31, 125.42
20.	Nigeria	71 867.82	74182.81	<b>105 002.13</b>

21.	South Africa	101 894.00	125 294.70	147 133.50
22.	South Sudan	96 000.00	95 000.00	95 000.00
23.	Tunisia	62 000.00	58 000.00	62 000.00
24.	Uganda	31 394.30	30228.50	36633.00
25.	Zimbabwe	17 929.39	12 005.79	22 058.60

- i) Only three DOs, Ethiopia, Madagascar, and South Africa, whose volume is above the 100-ton threshold, will not qualify for the exemption.
- ii) Botswana and Senegal provided their mail volumes in the number of items as indicated in Table 4.2 below.

**Table 4.2 Inbound Mail Volume (items)**

S/N	Designated Operator	2024 (items)	2023 (Items)	2022 (Items)
1.	Botswana	38 404	22 311	9 545
2.	Senegal	22 346	31 877	28 846

- i) The volume of items makes it difficult to compare with the 100-ton threshold. However, the number of items for both countries is surely below the threshold.

### **3.12 Please specify the DO's reason (s) for joining the GMS.**

The DOs provided an array of reasons for joining GMS, which are summarized below:

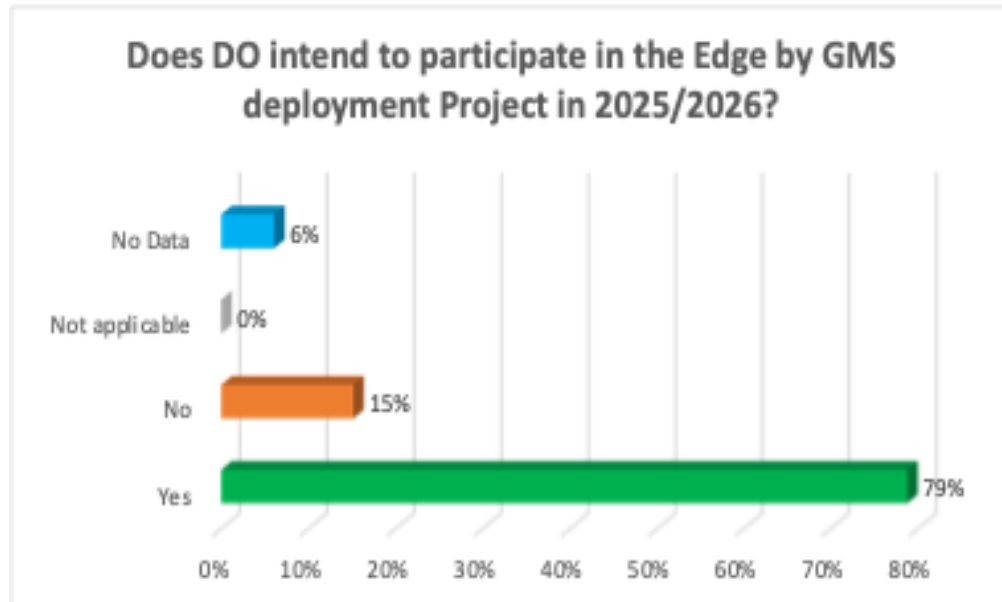
- a) Measure the quality-of-service performance of ordinary mail and ensure continuous quality improvement.
- b) Monitor and evaluate end-to-end delivery performance across the international mail network.
- c) Monitor performance levels and initiate corrective strategies for enhancing the quality performance of international mail.
- d) Increase visibility of mail operations on the international postal network.
- e) Achieve accurate, high-quality operational results for decision-making purposes.
- f) Ascertain quality of service delays and delivery time bottlenecks, and improve quality of service.
- g) Improve letter-post mail service quality to strengthen the worldwide postal network.
- h) Get ready for the quality performance-linked terminal dues remuneration.
- i) Earn additional funds from the Quality-of-Service Link to Terminal Dues system by participating in the GMS Link.
- j) Increase customer confidence and ensure supply chain reliability.
- k) Ensure compliance with quality standards and targets set by the UPU.
- l) Determine the best transport for international mail.
- m) Access technical support and training provided by the GMS team.
- n) Enhance tracking to support internal monitoring and customer service by combining barcodes with RFID data captured automatically from letter-post receptacles.
- o) Improve the quality of service and tracking of items, thereby enhancing customer satisfaction.
- p) Monitor and measure leg 3 lead times, particularly in the last-mile delivery.
- q) Measure how long it takes to process mail at the office of exchange.

### **3.13 Does DO Intend to Participate in the Edge by GMS Deployment Project in 2025/2026?**

- 3.13.1 In April 2024, the QSF Board of Trustees approved the Common Fund Project to deploy Edge to track receptacles. The Project will commence in September 2025, and the QSF Common Fund will bear the costs of participation for a two-year period.
- 3.13.2 The UPU sent an invitation requesting DOs to indicate if they would like to participate in the Edge by GMS Deployment Project in 2025/2026. DOs were expected to respond, express their interest, and nominate a Project Manager. The DOs would also support the UPU installation of equipment with the involvement of their internal IT teams.
- 3.13.3 Participation in GMS Edge to monitor dispatch level operations will address the challenges experienced by DOs as follows:
- i) For outbound mail, DOs experience logistical handover challenges to monitor if consignments were handed over as requested. RFID records the exact moment of handover, which can be compared to existing Service Level Agreements (SLAs) with the carrier and contrasted with electronic messages.
  - ii) For inbound mail, electronic messages are often derived from related events without reflecting the actual handover times. RFID readers installed at handover points provide trustworthy data to pinpoint the exact moment of handover.
  - iii) It is difficult for DOs to monitor operations to determine whether postal operations are aligned with peak hours and seasons. Automated data capture provides objective information about volumes, times, and dates of mail operations that can be used to make operational decisions.
- 3.13.4 GMS Edge will, therefore, ensure leg 2 monitoring, real-time tracking of dispatches, ease contact management with carriers, and effective resource allocation, among other things. It enhances tracking and operations monitoring by providing additional information on grey areas to the existing barcode scans.

The graph in Diagram 7 below shows the DOs who would like to participate in this project.

#### **Diagram 7: Edge by GMS Deployment Project Participation 2025/2026**



- Twenty-six (26) DOs representing 79% indicated they intend to participate in the project.
- Five (5) DOs, namely, Algeria, Egypt, Kenya, Senegal, and Sudan, do not intend to participate in the project.
- Angola and Morocco did not express their position on participation in the project.

Based on the responses above, GSM Edge is highly recommended, and DOs are interested in participating in the programme. Since the QSF Common Fund will fully cover the project's costs, DOs should ensure participation.

### **3.14 If the DO is not yet a member, are there any plans to join GSM? Please Specify the Reasons.**

- Six (6) DOs, namely, Algeria, Gambia, South Sudan, and Zambia, that are not yet members of GSM, indicated that they would like to join the system.
- Namibia, South Africa, and Madagascar would like to rejoin GSM, having discontinued the service.
- The DOs gave the reasons below for joining/rejoining GSM:
  - To improve mail quality performance and achieve the Quality-of-Service Link to Terminal Dues target.
  - To monitor and control inbound mail letters and boost service quality.
  - To join the GSM members list and contribute to strengthening the postal network.
  - Gambia indicated that they would join once their financial position improves.
  - South Sudan stated they have not installed the GSM equipment due to financial constraints.
  - Algeria, Egypt, Liberia, Sierra Leone, and Sudan are not yet members of GSM and have indicated they do not intend to join the system.

### **The reasons given for not joining GSM were as follows:**

- Egypt Post indicated they require complex security approvals to join the system.
- Liberia has no financial capacity to join GSM.

- iii) Sierra Leone cited non-affordability because they pay for other PTC systems annually. The high GMS installation costs and annual subscriptions against the DO's low volume will not be viable.

### **3.15 Is the DO Considering Using Other Systems for Measuring Its Quality of Service for Ordinary Letter Post? Please Specify the System.**

3.15.1 Designated Operators can use alternative systems to monitor and measure the quality of service for international mail. In response to the question, DOs proposed the use of the following systems:

- i) Quality Control System (QCS).
- ii) Integrated Quality Reporting System (IQRS).
- iii) International Postal System (IPS/ IPS.POST).
- iv) Domestic Quality of Service Monitoring System (GMS ONE)
- v) External measurement of delivery times by a service provider.
- vi) A system to measure the quality of service for trackable ordinary small packets.

3.15.2 Egypt Post believes that measuring the quality of service for ordinary mail is no longer necessary due to the decline in mail volumes. Therefore, the quality of service for ordinary mail does not reflect the Operator's performance. There is no longer a need to invest in measuring quality for these items.

3.15.3 The current and future focus should be on monitoring the quality of service for e-commerce items containing goods. These items have barcodes, which make them trackable; hence, quality can be monitored and measured using available UPU tools. Therefore, investment should be channeled towards tracking e-commerce items.

## **4.0 SUMMARY OF HIGH-LEVEL OBSERVATIONS**

The following observations can be drawn from the responses to the questionnaire:

- i. Not all Designated Operators are keen to implement GMS.
- ii. Some Designated Operators who were members of GMS withdrew membership because of the high membership costs.
- iii. The bonuses are difficult to attain, as only one country, Eswatini, has benefited once, which could indicate the unrealistic nature of the bonus system.
- iv. DOs are interested in measuring their quality of service and improving their services to improve their earnings.
- v. Letter mail volumes, on average, have been in continuous decline, requiring an affordable system for measuring the service.
- vi. Resources that are deployed for the measurement of quality of service on untracked letter post items are best utilized in funding projects or efforts on measuring e-commerce items

## **5.0 RECOMMENDATIONS**

In light of the declining letter post business and the opportunities being presented by e-commerce, which is on the increase, the following are the recommendations:

- i. DOs should consider using alternative, less costly quality of service monitoring tools in place of GMS.

- ii. DOs should focus their investment efforts on monitoring the quality-of-service projects for items containing goods, since e-commerce is the future of the post.

## **6.0 CONCLUSION**

The high response rate achieved on the GMS Participation in Africa Questionnaire is highly commended. Member States and their Designated Operators are encouraged to continue implementing quality monitoring systems for the different product portfolios and ensure continuous quality and reliability of the postal network for the benefit of their customers.

## **7.0 DECISIONS EXPECTED**

- Adopt the Report on the Analyses of the GMS Questionnaire.
- Take note of the Recommendations