



## QUARTERLY SECTOR STATISTICS REPORT

3<sup>RD</sup> QUARTER  
JAN-MAR 2009/2010

Any queries to this report contact;  
Director/Competition Tariffs and Market Analysis  
[Tel:+254-20-4242000](tel:+254-20-4242000)  
Email: [info@cck.go.ke](mailto:info@cck.go.ke)  
Website: [www.cck.go.ke](http://www.cck.go.ke)

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## LIST OF ABBREVIATIONS

SMS.....	Short Messaging Service
MOU.....	Minutes of Use
ICTs.....	Information Communications Technologies
Mbps.....	Megabits per second
SIM.....	Subscriber Identification Module

## 1. TRENDS AT A GLANCE

The number of mobile subscribers in the country increased from 19.4 Million at the end of Dec-09 to 19.9 Million at the end of the quarter under review, Mar-10, registering a growth of 2.7 per cent.

The total number of fixed lines saw a decline of 0.5 per cent, having decreased to 245,791 in the quarter under review down from 247,082 in Dec-09. At the same time the number of fixed wireless subscriptions experienced a decline of 41 per cent from 551, 132 in Dec-09 to 325,022 in Mar-10.

Overall tele-density rose to 52.5 per cent in Mar-10, with mobile penetration accounting for 51 per cent.

There was an increase in MOU per subscriber per month for mobile from 79.36 minutes in the previous quarter to 89.32 minutes in the quarter under review. This represents a 12.6 per cent increase. At the same time the number of SMS per subscriber per month was reported at 14.1 up from 13.2 SMS in the previous quarter.

Internet subscriptions registered a 33.6 per cent growth from 2 million in the previous quarter, Dec-09, to 2.7 million in the quarter under review. The number of internet users was estimated at 6.4 million during the quarter under review from 4 million users in the previous quarter.

Broadband<sup>1</sup> subscriptions represented 0.2 per cent of the total internet subscriptions during the quarter under review with a total of 6,529 subscriptions.

The international internet bandwidth increased by 10 per cent from 17,194 Mbps in the previous quarter to 18,910 Mbps in the quarter under review.

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<sup>1</sup> In Kenya broadband is defined as speeds greater than or equal to 256Kbps in one or both directions.

## 2. MOBILE TELEPHONE SERVICE

### a) Subscriptions

The period under review recorded an increase in mobile subscriptions to 19.9 million up from 19.4 million in the previous quarter. This represents a 2.7 per cent increase compared to the previous quarter and a 14.6 per cent increase compared to the same quarter of the previous year. The growth in the number of mobile subscriptions can be attributed to multiple SIMs ownership and increased number of service providers offering attractive promotions. The summary of mobile subscriptions is table 1.

Table 1: Mobile Subscriptions

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
Number of subscriptions	19,885,258	19,364,559	2.7	17,359,041	14.6
Prepaid subscriptions	19,685,497	19,178,185	2.6	17,179,072	14.6
Post paid subscriptions	199,761	186,374	7.2	179,969	11.0

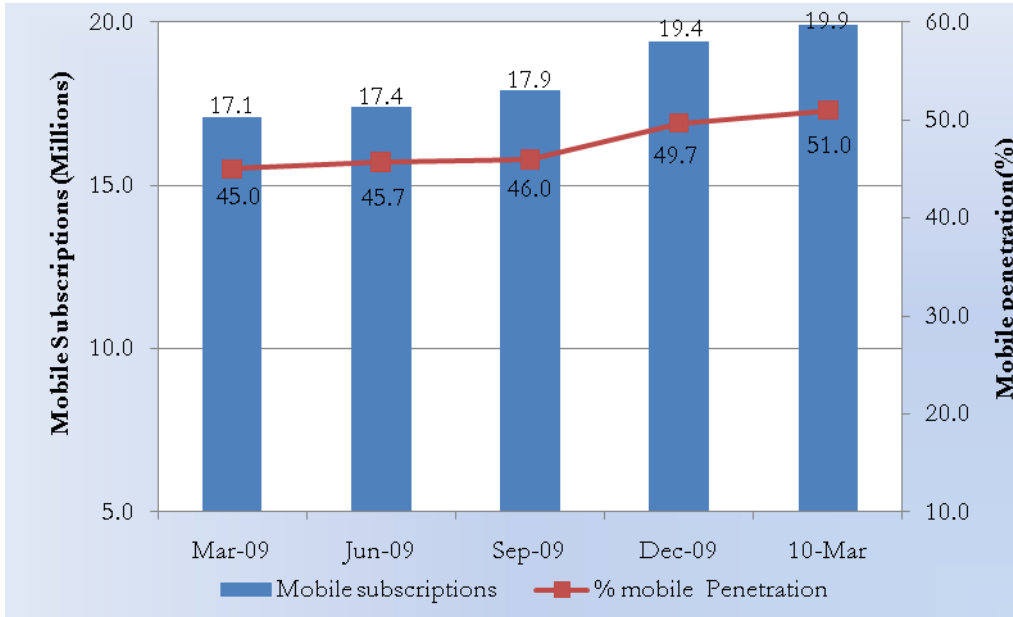
Source: CCK, operators returns

The number of prepaid subscriptions grew by 2.6 per cent during the quarter under review compared to 7.2 per cent growth in the number of post paid subscriptions. The number of prepaid subscriptions however still dominates the overall mobile subscriptions representing 99 per cent of the total mobile subscriptions.

This is consistent with the trends in developing countries where prepaid service is preferred due to the ease and convenience of subscription compared to postpaid which has requirements that are not within the reach of the majority of the population. The reduction of the value of prepaid calling cards to as low as KES 5.00 has made prepaid services a choice for most low income subscribers.

During the quarter under review, mobile penetration increased from 49.7 per cent in the previous quarter to 51.0 per cent. This is an increase of 1.3 percentage points. The growth in mobile penetration is as shown in the figure 1.

Figure 1: Mobile Penetration



Source: CCK, Operators' returns

At the end of the quarter under review, the population under mobile coverage stood at 86 per cent against a land coverage of 35 per cent. This represents 1.5 and 1 percentage point growth in population and land coverage respectively compared to the previous quarter. At the same time the growth in population and land coverage increased by 3 and 2 percentage points respectively in the same period of the previous year. The summary of land and population coverage is as shown in table 2.

Table 2: Mobile coverage

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
Population coverage	86.0	84.5	1.5	83.0	3.0
Land coverage	35	34.0	1.0	32.0	2.0

Source: CCK, Operators' returns

**b) Mobile tariffs**

Over the period the mobile tariffs have been declining as a result of a more competitive landscape from the four mobile operators whose focus seems to be offering incentives as a way of subscriber acquisition and retention. During the quarter in review, charges within the same network were recorded at KES 5.66 per minute compared to KES 5.66 per minute in the last quarter. This is as shown in table 3.

Table 3: Mobile tariffs KES per minute

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
Charges to same network	5.0	5.66	-11.7	9.0	-44.4
Charges to another mobile network	11.0	13.0	-15.4	13.3	-17.3
Charges to fixed network	11.0	11.7	-6.0	11.7	-6.0
International call charges	31.7	31.7	0	43.4	-27.0
SMS same network	1.8	2.3	-21.70	3.0	-40.0
SMS to another network	3.5	3.5	0	3.7	-5.4
International SMS	10.0	10.0	0	10.0	0

Source: CCK, Operators' returns

At the same time the SMS to the same network declined by 21.7 per cent from the previous quarter and 40 per cent decline compared to the same period of the previous year. The international charges did not record any change during the period. However a decline of 27 per cent was recorded in the same period of the previous year.



### c) Mobile Traffic and usage pattern

Over the period, mobile traffic has continued to grow steadily. This could be attributed to growth in mobile subscriptions as well as increased calling frequencies possibly due to the various attractive tariff promotions by the operators.

During the quarter under review, the total number of mobile traffic grew by 19.9 per cent from 4.2 million minutes in the previous quarter to 5.1 million minutes. This is an increase of 118.6 percent compared to the same period of the previous year.

Notably, the mobile to fixed line traffic experienced an annual decline of 14.3 per cent, a pattern that is consistent with the declining trend of the number of fixed line subscriptions. A summary of the mobile traffic is as shown in table 4.

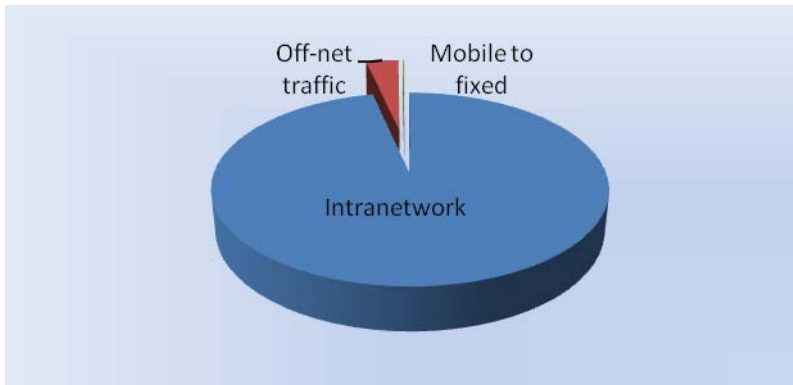
Table 4: Mobile Traffic in minutes

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
Own network traffic	4,976,959,347	4,292,402,416	15.9	2,194,324,594	126.8
Off-Net traffic	169,258,558	143,452,296	18.0	153,411,658	10.3
Mobile to fixed	8,405,955	6,886,757	22.1	9,806,824	-14.3
Total mobile minutes	5,154,623,860	4,299,289,173	19.9	2,357,543,076	118.6

Source: CCK, Operators' returns

As illustrated in the figure 2 below, the share of intra-network traffic contributes immensely to the total mobile traffic in the country. The intra-network traffic accounted for 97 per cent of the total traffic during the quarter under review. This could be explained by operators' focus on promoting on-net calls as well as possession of multiple SIM cards by subscribers.

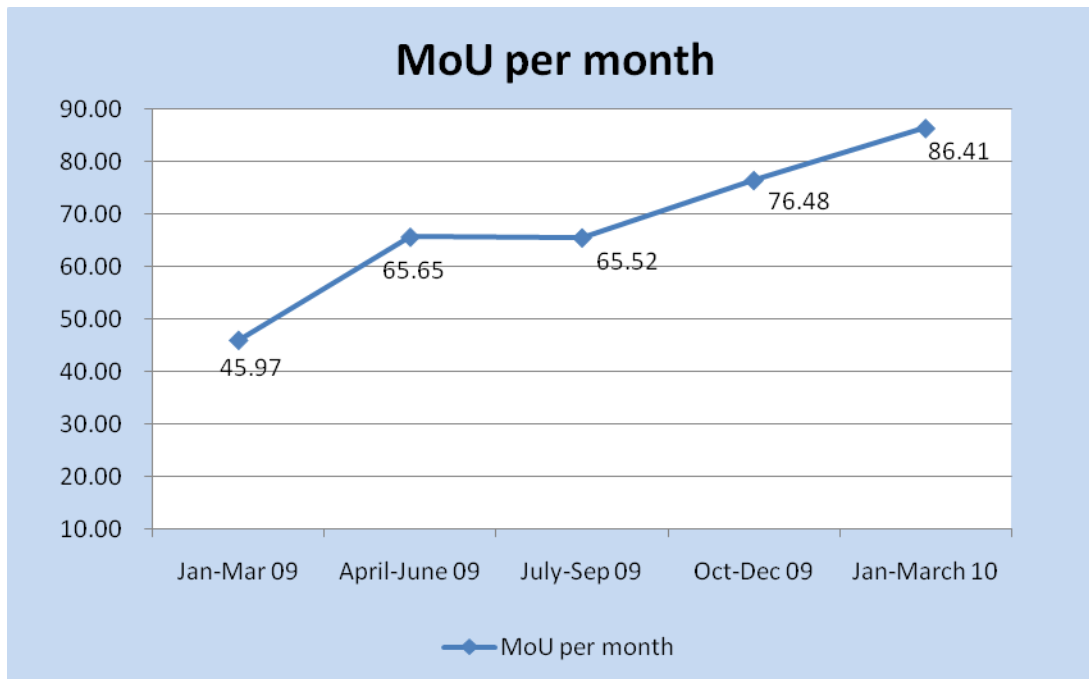
Figure 2: Mobile traffic



Source: CCK, Operators' returns

MOU per subscriber per month recorded 86.41 minutes compared to 76.48 minutes in the previous quarter. This represents a 13 per cent increase compared to 88 per cent increase in the same period of the previous year. The growth in MOU is in line with the increased mobile traffic and mobile subscriptions. The growth in MOU per subscriber per month is as illustrated in figure 3.

Figure 3: Minutes of Use per month



Source: CCK, Operators' returns

During the quarter under review Q3 09/10, the total number of text messages sent was reported as 839 million by all the operators. This figure is 9.1 per cent higher than the figure reported in the previous quarter. However, compared to the same quarter of the previous year, it is 21.1 per cent lower, an indication that the attractive calling rates offered by the

operators have influenced subscribers towards a preference of voice calls to SMS. The summary of the number of SMS is as presented in table 5.

Table 5: SMS

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
Total SMS	839,129,739	769,100,432	9.1	1,063,810,427	-21.1
SMS per subscriber per month	14.1	13.2	6.8	20.7	-31.9

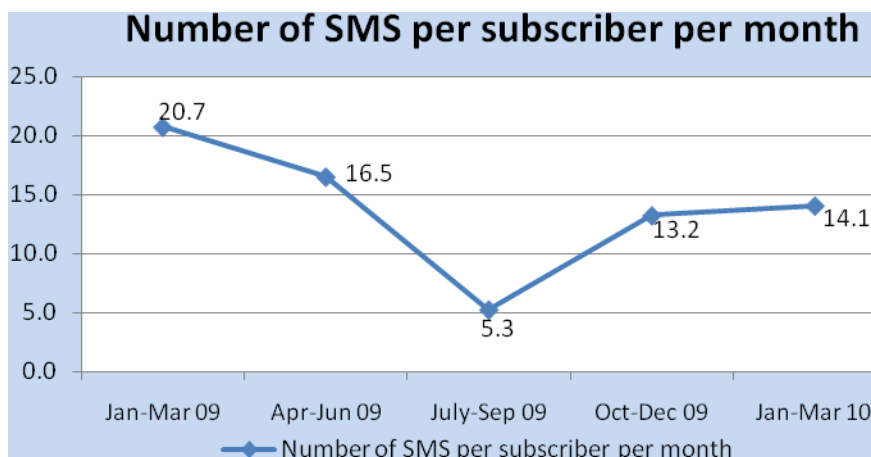
Source: CCK, Operators' returns

The trend of overall SMS usage is reflected in the number of SMS per subscriber per month. As illustrated in figure 4 below, this segment has experienced inconsistent growth over the period.

During the quarter under review the number of SMS per subscriber per month was reported as 14.1. This represents a 6.8 per cent increase compared to the previous quarter and a decline of 31.9 per cent compared to same quarter of the previous year.

As earlier indicated, this trend could be as a result of the impact of competitive tariffs on voice calls with some offers being as low as KES 3.0 on-net and KES 6.0 off-net based on per minute billing which would appear cheaper than an SMS of KES 1.8 and KES 3.5 on-net and off-net respectively depending on how long the call lasts.

Figure 4: Number of SMS per subscriber per month



Source: CCK, Operators' returns

In the quarter being reported, Q3 09/10, the number of minutes of subscribers roaming on foreign networks recorded a 7.2 per cent increase over the previous quarter and a 4.2 per cent increase in the same quarter of the previous year. This increase could be as a result of operators offering roaming services to pre-paid subscribers an offer that had hitherto been a preserve of the post paid subscribers.

At the same time, the number of minutes of foreign subscribers roaming on national networks declined by 25.1 per cent over the previous quarter and an increase of 55.0 per cent was reported for the same quarter of the previous year.

The balance of roaming traffic (Roaming in minus Roaming out) was negative (-) 11.8 million minutes. This traffic imbalance is as a result of subscribers of national networks receiving significantly more calls when abroad than those received by subscribers to foreign networks when in Kenya. The summary is as shown in table 6.

Table 6: Roaming traffic

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
Roaming voice minutes own subscribers on foreign networks	17,254,492	16,088,869	7.2	16,550,251	42.6
Roaming voice minutes foreign subscribers own network	5,477,090	7,309,398	-25.1	3,534,456	55.0
Roaming messages own subscribers on foreign networks	3,702,539	3,500,240	5.8	3,991,530	-7.2
Roaming messages foreign subscribers on own network	3,274,358	2,752,601	19.0	19,314,748	-83.0

Source: CCK, Operators' returns

The number of roaming SMS for subscribers roaming on foreign networks increased to 3.7 million messages representing a 5.8 per cent increase over the previous quarter but declined by 7.2 per cent in the same quarter of the previous period.

At the same time, the number of messages for foreign subscribers roaming on national networks increased by 19.0 per cent to record 3.3 million messages during the quarter under review. However a notable decline of 83 per cent was recorded during the same quarter of the previous year.

During the quarter under review, international incoming mobile voice minutes grew by 8.3 per cent from the previous quarter and 53 per cent increase compared to the same quarter of the previous year.

In addition, the international outgoing traffic increased by a margin of 1.4 per cent over the last quarter and increased by 15 per cent during the same quarter of the previous year.

The marginal growth in international outgoing traffic may be an indication of a shift towards VoIP in tandem with increased internet usage in the country. Table 7 below shows the summary of international mobile traffic.

Table 7: International traffic

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
International incoming mobile voice minutes	150,231,486	138,658,945	8.3	98,219,969	53.0
International outgoing mobile voice minutes	57,875,513	57,062,531	1.4	50,387,423	14.9
Incoming VoIP Minutes	1,263,820	123,352	924.6	9,526,885	-86.7
Outgoing VoIP Minutes	1,844,463	119,972	1437.4	547,195	237.1

Source: CCK, Operators' returns

The incoming VoIP minutes increased close to 10-fold from 123,000 minutes in the previous quarter to 1.3 million minutes in the quarter under review. This represents 86.7 per cent decline compared to the same quarter of the previous year.

At the same time the outgoing VoIP minutes increased significantly to 1.8 million minutes during the quarter under review from 120,000 minutes in the previous quarter. The increase could be attributed to the decline of roaming minutes for foreign subscribers on local networks.

### 3. FIXED TELEPHONY SERVICE

#### a) Subscriptions

During the quarter under review, the number of fixed lines declined by 1,291 lines which is a negative growth of 0.5 per cent compared to the previous quarter. Comparing to the same quarter of the previous period, a 0.6 per cent growth was recorded.

The number of fixed wireless was reported at 325,022 during the quarter under review down from 429,289 in the previous quarter, representing a 24.3 per cent decline.

Table 8: Fixed network subscriptions

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
Number of main fixed lines	245,791	247,082	-0.5	244,254	0.6
Fixed wireless subscribers	325,022	429,289	-24.3	408,564	-20.4

Source: CCK, Operators' returns

The decline in the number of fixed wireless subscriptions is detrimental to the growth of the fixed line services in the country as it has been a key contributor to the fixed service market, considering that there is a nationwide coverage of fixed wireless services coupled with its capacity to deliver data services, this is a concerning trend.

#### b) Fixed Network Traffic

As shown in table 9 below, the fixed network traffic experienced a quarterly decline of 8.9 per cent from the previous quarter compared to an annual decline of 12.5 per cent. This could have resulted from reduced subscription of fixed wireless and fixed line services.

Table 9: Fixed network traffic

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
Fixed to mobile	7,816,395	8,577,670	-8.9	9,806,824	-12.5
International incoming voice minutes	13,696,768	6,795,624	101.6	21,676,904	-36.8
International outgoing voice minutes	3,417,916	6,371,596	-46.4	3,858,449	-11.4

Source: CCK, Operators' returns,

The international incoming traffic increased significantly by 101.6 per cent from close to 6.8 million minutes in the previous quarter to 13.7 million minutes during the period under review. However a decline of 36.8 per cent was recorded during the same period of the previous year.

At the same time, international outgoing traffic declined by 46.4 per cent from the previous quarter. Compared to the same period of the previous year a decline of 11.4 per cent was recorded. This trend is an indication of the increase in international outgoing mobile traffic could have been the cause of decline in the international outgoing fixed line traffic.

#### 4. DATA AND INTERNET SERVICE

##### a) Subscriptions

At the end of the quarter under review there were close to 2.7 million internet subscribers in the country up from 2.0 million in the previous quarter. This represents a 33.5 per cent increase compared to the last quarter and a 55.7 per cent increase compared the same quarter of the previous year.

The increase in the number of internet subscribers is accelerated by the provision of data services through GPRS/EDGE and 3G networks of mobile operators. Mobile service contributed 99 per cent of the total internet subscriptions during the period under review. A summary of internet subscriptions is as shown in table 10.

Table 10: Internet subscriptions

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
<b>Total internet subscriptions</b>	<b>2,667,916</b>	<b>1,997,832</b>	<b>33.5</b>	<b>1,713,852</b>	<b>55.7</b>
Terrestrial mobile/data subscriptions	2,651,651	1,981,048	33.9	1,524,948	73.9
Terrestrial wireless data/internet subscriptions	6,050	8,435	-28.3	30,000	-79.8
Satellite data/internet subscriptions	1380	1,416	-2.5	-	-
Fixed DSL data/Internet subscriptions	8,800	8,349	5.4	-	-
Fixed fiber optic data/internet subscriptions	35	-	-	-	-
Estimated Internet users <sup>2</sup>	6,385,302	3,995,664	59.8	3,409,896	87.3

Source: CCK, Operators' returns, (-) data not available

As shown in table 10 above, the growth of internet users is in line with the growth of internet subscriptions. At the end of the quarter under review there were 6.4 million estimated internet users in the country, representing a 59.8 per cent increase compared to the previous quarter and an increase of 87.3 per cent in the same period of the previous year.

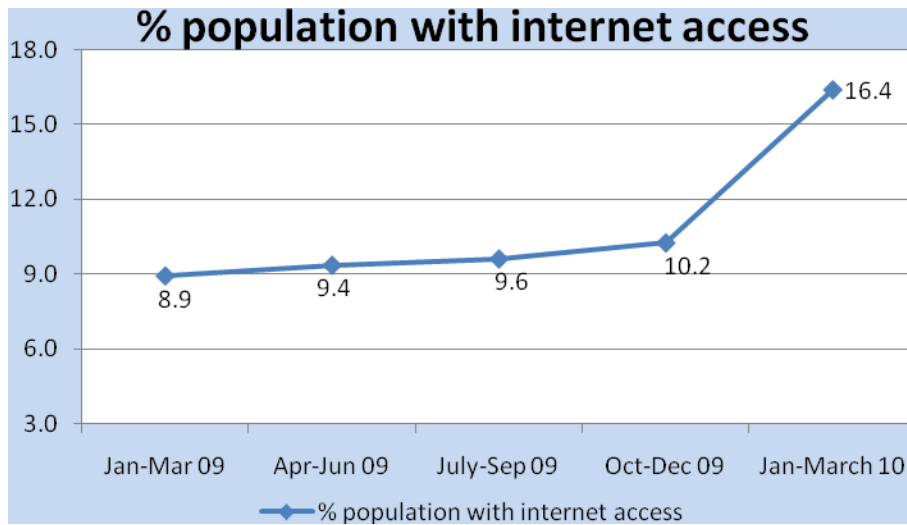
The increase in the number of internet users could also be attributed to innovative offerings such as connectivity to social networking sites through the mobile phones, a service that has gained popularity among young people in the country.

<sup>2</sup> Internet users is estimated by multiplying by 2 the number of mobile data/internet subscriptions, by 10 terrestrial wireless subscriptions, and by 100 fixed DSL, Fiber optic and satellite subscriptions. There is no scientific method of estimating internet users; for the purpose of this report the methodology adopted is borrowed from the internet market study 2006 of CCK.



The number of internet users represented 16.4 per cent of the total population. Even though this is an increase of 6.2 percentage points from the previous quarter, it is still way below the world average of 25.9 per cent (World telecommunication/ICT development report 2010). Figure 5 below shows the growth of internet penetration in the country.

Figure 5: Internet penetration



Source: CCK, Operators' returns

Broadband<sup>3</sup> is still at a nascent stage in the country. During the period under review, the number of broadband subscriptions was recorded at 6,529 from 2,601 subscriptions in the previous quarter. This represents 151 per cent increase during the period. It is to be noted that these figures do not include mobile broadband subscriptions whose information is yet to be availed.

#### b) International connectivity

During the quarter under review, Q3 09/10, the total international internet bandwidth was recorded at 18,910.02 Mbps. This is an increase of 10 per cent over the previous quarter and a 626.7 per cent compared to the same period of the previous year.

As presented in table 11 below, the noted increase in international internet bandwidth is largely due to the operationalisation of two submarine cables which account for 98 per cent of the total international internet bandwidth.

<sup>3</sup> In this report Broadband is defined as speeds greater than or equal to 256Kbps in one or both directions

Table 11: International internet bandwidth

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
International undersea bandwidth(Mbps)	18,485	16,775	10.2	0	100
International Satellite bandwidth(Mbps)	425	419	1.4	2,600.9	-83.7
Total international internet bandwidth(Mbps)	18,910	17,194	10.0	2,600.9	627.1

Source: CCK, Operators' returns

It is evident that the envisaged gains of the undersea cables are increasingly being experienced as operators shift their reliance from costly satellite connectivity.

## 5. POSTAL AND COURIER SERVICE

### a) Postal traffic

During the period under review the number of letters sent using postal services were recorded at 23 million down from 25 million letters posted the previous period. This represented a decline of 9.7 per cent. This decline could be as a result of a shift towards electronic communication and commerce.

Comparing the number of letters sent during the same period of the previous year, it represents a 22.8 per cent increase.

At the same total courier items sent using postal services declined from 393,571 during the previous period to 367,447 during the period under review. This represented a 6.6 per cent decline but a 2.1 per cent increase was recorded in the same period of the previous year. The summary of postal traffic is as shown in table 12.

Table 12: Postal traffic

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
Number of letters posted	23,315,224	25,810,533	-9.7	18,992,730	22.8
Total courier items sent	367,447	393,571	-6.6	360,003	2.1
International incoming letters	80,949	97,048	-16.6	108,872	-25.6
International outgoing letters	1,395,238	2,650,296	-47.4	2,402,320	-42.0

Source: CCK, Operators' returns

The international incoming letters experienced a decline of 16.6 percent during the period under review from the previous quarter and a 25.6 percent decline compared to the same period of the previous year. The decline is also recorded in the international outgoing letters by 47.4 per cent compared to the same period of the previous quarter and a decline of 42 per cent compared to the same period of the previous year. This trend is indicative of the impact of increased penetration of internet services on postal services.

**b) Courier traffic**

During the quarter under review the number of letters sent using courier services declined by 35.7 per cent from 113,781 letters during the previous quarter to 73,162 letters.

The number of courier items sent increased marginally by 0.05 per cent from the previous quarter but a significant growth of 306.8 per cent was recorded in the same period of the previous year. The summary of courier traffic is as shown in table 13.

Table 13: Courier traffic

	Q3 09/10	Q2 09/10	Quarterly % Change(+/-)	Q3 08/09	Annual % change (+/-)
Number of letters posted	73,162	113,781	-35.7	76,161	-3.9
Total courier items sent	1,323,577	1,322,879	0.05	325,332	306.8
International incoming courier	9,344	9,642	-3.1	10,872	-14.1
International outgoing courier	33,143	33,806	-2.0	34,143	-3.0

Source: CCK, Operators' returns

The international incoming courier items declined by 3.1 per cent from the previous period to record 9,344 courier items during the period under review from 9,642 courier items in the previous quarter. The same trend was observed during the same period of the previous year where a decline of 14.1 per cent was reported.

At the same time the international outgoing courier experienced a decline of 2 per cent from the previous period and a 3 per cent decline compared to the same period of the previous year. This trend is similar to the international postal traffic which signifies the overall effect the increased internet penetration has had on postal and courier services in the country.

## 6. CONCLUSION

The communication sector is still experiencing an upward trend as registered by the growth in subscriptions to all the telecommunications services.

Increased competition in the mobile sector has resulted in steady growth of this market segment as the services become more affordable. Consequently, the number of mobile subscriptions as well as mobile coverage patterns has continued to demonstrate a positive growth over the period. This trend is likely to continue in future as operators continue employing innovative ways of creating market niche and retaining customers.

The data and internet market experienced an exponential growth on the number of internet users increasing to 6.4 million, representing 16.4 per cent of the population with access to internet. This is a step forward towards bridging the digital divide in the country with mobile phones being the instrumental platform to accessing internet. The development has greatly

contributed in facilitating ease of doing business for small and medium enterprises as operators offer tailor made services for this market at increasingly affordable costs.

In addition, internet connectivity has been enhanced by the operationalisation of the submarine cables which has led to a reduction to the cost of bandwidth. This in effect has spurred growth in the data market as is witnessed with increased utilization of e-services. Some notable initiatives within the quarter include the development in e-transactions such as the Mobipay that enables customers buy and pay for goods through the internet, the introduction of e-ticketing services by some bus companies. There is opportunity for further growth with the expected connectivity through an additional cable in the next quarter.

The impact of e-commerce and other online applications on the postal and courier sector has been going by the declining trend of the traffic volumes.

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