

ANNUAL REPORT  
**2009**



Regulating water  
Electricity and  
Communications  
for a better Nation



Public Utility  
Regulatory Authority

*Equity in development*



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# Acronyms

AFUR	– African Forum for Utility Regulation
BTS	– Base Stations
CTO	– Commonwealth Telecommunications Organisation
CFL	– Compact Fluorescent Lamp
DOSCIT	– Department of State for Communications, Information and Technology
DOSEN	– Department of State for Energy
DOSFEA	– Department of State for Finance & Economic Affairs
DWR	– Director of water resources
EGSM	– Extended GSM
ECOWAS	– Economic Community of West Africa States
GBA	– Greater Banjul Area
GEG	– Global Electric Group
GPPA	– Gambia Public Procurement Authority
GRTS	– Gambia Radio and Television Services
GSM	– Global System for Mobile Communications
IEC	– International Electrotechnical Committee
ICT	– Information Communication Technologies
IP	– Internet Protocol
IP3	– Institute for Public Private Partnerships
IPP	– Independent Power Producers
ISP	– Internet Service Providers
IT	– Information Technology
ITU	– International Telecommunications Union
kV	– Kilo Volts
kWh	– Kilowatt Hour
NAWEC	– National Water and Electricity Company
NEA	– National Environment Agency
NCC	– National Communications Commission of Nigeria
POI	– Point of Interconnection
PPA	– Power Purchase Agreement
PPIAF	– Public Private Infrastructure Advisory Facility
PURA	– Gambia Public Utilities Regulatory Authority
SOS	– Secretary of State
SSHFC	– Social Security and Housing Finance Corporation
UNDP	– United Nations Development Programme
WAPP	– West African Power Pool
WATRA	– West African Telecommunications Regulatory Assembly

# INTRODUCTION

The Annual Report for 2009 complies with PURA's obligation under the PURA Act 2001 to report on its activities during the preceding year. It describes the achievements of the Authority, highlighting the challenges that were faced, while setting out the outlook for the coming year and beyond.

**The First Part** - the Corporate Governance and Human Resources Review - looks at the organizational structure of PURA. It identifies the regulatory capacity building activities embarked upon during the year. It also identifies the challenges that need to be addressed in terms of governance and human resource development to facilitate the effective implementation of PURA's regulatory mandate.

**The Second Part** - the Financial Review - looks at the financial status of the Authority during 2009. It highlights the incomes received against budgeted income and overall performance as regards PURA's operations during the year in review.

**The Third Part** - the Market Development Review – provides a detailed update on the activities of regulated utilities as well as providing an overview of their status during the course of the year. This year, this review also provides more insights into the work of the Authority in developing its capacity to regulate the Water sector in particular whilst strengthening its work in the Electricity and Telecommunications sectors.

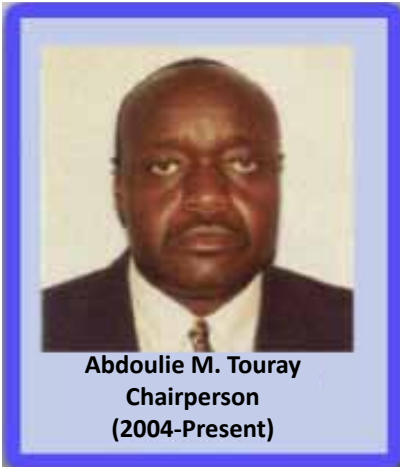
**The Fourth Part** - Consumer Affairs – focuses on cross-cutting activities used as vehicles and tools by PURA to engage its domestic and external stakeholders. The review of this area for 2009 also highlights progress on PURA's implementation of a Complaints Resolution Mechanism as part of its regulatory tools and interventions in monitoring and evaluating the performance of regulated utilities.

**The Fifth Part** - Legal and Compliance Review – highlights the impact and status of existing and impending legislation that empowers PURA by providing it with its legal basis to discharge its regulatory mandate. This part of the review also looks at the status of compliance of the regulated utilities in terms of their obligations under the regulatory process.

**The Sixth Part** - focuses on key regulatory activities embarked on by the Authority during the course of the year.

**The Seventh Part** - of the report provides an outlook for 2010 and beyond on the sectors being regulated.

# CHAIRPERSON'S STATEMENT



Another year has flown by and this is PURA's 2009 Annual Report. Keeping up with tradition PURA's Annual Report aims to provide a bird's eye view of the work carried out and challenges associated with carrying out its mandate as prescribed by the PURA Act 2001. The specific period covered in this report is 1st January, 2009 to 31st December 2009. The year was perhaps one of the busiest ever for PURA and hence a slightly longer statement to reflect this.

I am happy to report that 2009 saw PURA further consolidate its achievements in its approach towards utility regulation. Staff numbers remained the same as 2008 demonstrating that the institution was developing its existing personnel to manage diverse tasks. In the past telecommunications dominated previous years work whilst other sectors such as the energy sector took a somewhat silent second position. However the year 2009 witnessed a shift in focus and the bedding-in of energy utility regulation in The Gambia. PURA took a great leap in effectively working towards getting to grips with the challenges associated with the energy sector and delivery of important interventions.

Specifically, it is encouraging to report that the energy sector, having improved on the supply side in terms of increased distribution of electricity so as to catch up with demand, provided the ground for a flurry of regulatory interventions worthy of mention. For example, Electricity Engineers and Water Engineers from PURA embarked upon a number of collaborative national tours demonstrating our drive towards "equity in development through professionalism and partnership".

The first one was in January in the company of the Minister of Energy. The tour was conducted principally to assess the level of electrification and level of service delivery in the country. All power plants and electricity vending stations throughout the provincial regions of the country were visited. The main findings of the tour are referred to in more detail within this report but include challenges such as:

- The need for frequent safety training programmes for technicians and staff of the power plants
- High costs of meters for the rural population
- The need to facilitate the development and utilisation of alternative sources of energy, i.e. solar
- Increasing the number of vending stations to purchase pre-payment electricity units

As a follow up to developments in the electricity sector a second tour was conducted in October 2009. This tour brought out the serious challenges the regulatory authority, the service provider NAWEC and the Government had to deal with in the delivery of rural electrification.

Amongst noted findings by PURA were:

- a steady increased demand for electricity in the regions
- infrastructure required urgent upgrading and
- the need to provide interconnection between rural power stations as part of a wider scheme in delivering a fully integrated national grid network.

I am also happy to report that in November 2009 another national tour sponsored by the United Nations Development Programme (UNDP), the Ministry of Energy, NAWEC and NEA, made up of a team comprising representatives of all these institutions and PURA, toured all regions of The Gambia. The tour was conducted as a national sensitisation campaign on energy efficiency and conservation through the use of Compact Fluorescent Lamps (CFL).

The team engaged in a public information campaign to encourage consumers to change incandescent lamps with energy saving lamps. Consumers were successfully informed and educated as to the benefits of saving energy in this way thereby helping to extend availability of electricity to those consumers not connected to the national grid or distribution network. A key observation from these tours is that Universal Access to electricity is something that all relevant stakeholders, with both PURA and the Ministry of Energy taking the lead, will have to work towards improving the already referred challenges in this sector.

These activities and interventions also provided a platform for PURA to send clear signals to stakeholders of the intention of PURA in fulfilling its mandate under the PURA Act 2001. They were also a catalyst for change in the manner in which business was expected to be conducted both by operators and consumers in the energy sector. In 2009, in furtherance of PURA's drive to provide more regulatory interventions in the energy sector (especially in the area of electricity), research was conducted on efficient street lighting. This was because energy consumption of existing streetlights in the Greater Banjul Area (GBA) was a matter of concern to both the PURA and the Area Councils. The purpose of the research was to measure energy consumption and the light output from the lamps in lumens per square meter also referred to as Lux - a measure of the luminous intensity measured about one meter above the road surface.

In addition PURA also successfully organised a workshop for Area Councils and key stakeholders in early 2009. The theme of this workshop was to raise awareness of area council staff in respect of street lighting and the benefits of using efficient lighting like CFL's and LEDs. Further details on this research are contained in this report.

Another milestone in the year 2009 was the participation of PURA at the Gambia Chamber of Commerce and Industry (GCCCI) Trade Fair. PURA took up a space of two stalls and staged an exhibition of new and energy efficient streetlights in addition to a demonstration board of incandescent and CFL lamps for consumers to see the difference in consumption. Visitors to the PURA stall were also able to use an in-house developed model by PURA to estimate their energy consumption in kilo Watt hours (KWh).

Other notable developments in relation to regulatory interventions in the energy sector, further details of which are contained in this report, include:

- A Tariff Study on Electricity and Water services. The objective of the study was to carry out a tariff study and assist PURA in the implementation of tariff guidelines and models emanating from the study for unbundled generation, transmission, and distribution tariffs in line with the spirit of the Electricity Act 2005. Specifically on Electricity and Water Tariffs, the study categorically pointed out that Electricity Prices were too high and recommended a reduction tariffs for all classes of consumers. PURA successfully implemented this recommendation in November 2009.
- A National Electrotechnical Committee (NEC) has been established with key stakeholders and it has met several times during the course of the year. The work of the NEC is to participate in the work of the International Electro-technical Committee (IEC) and also towards adaptation of IEC standards. PURA aims to introduce standards to address the issue of sub-standard electrical material being sold in The Gambia. The work of the NEC was duly recognised by government and PURA has been invited to participate actively as a core stakeholder in the consultation towards establishing a National Standards Bureau by the Ministry of Trade Industry and Employment.



- Improved water, good sanitation and better health are strongly correlated as outlined in the UN Millennium Goals, goal number 7 (Ensure environmental sustainability): Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

To ensure that the Gambia meet the set goals and maintain its sustenance, benchmarking, standard monitoring, enforcement and compliance are vital roles to which regulatory interventions are imperative and in no small measures desirable. In this regard a memorandum of understanding (MOU) was signed with the Department of Water Resources in the field of cooperation for water quality testing on May 13th 2009. The key areas of cooperation contained in the MOU amongst others are further detailed in the body of this annual report.

- Annual tour of the NAWEC rural facilities was conducted during the year and a report was prepared and shared with the relevant authorities. During the tour, briefings were held with the staff on site and the role of PURA was explained to them. Other rural community water sites were visited.

On the telecoms front, the second part of the 2008 Interconnection Determination by PURA was implemented which saw a final reduction of interconnection charges to D0.50b/min. However a key milestone was registered when the fourth mobile operator – QCell - joined the market and commenced operations in July 2009. QCell's market entry was

facilitated by the low and uniform interconnection rates determined by PURA in 2008. They obtained a 3G licence and became the first operator to deliver 3G services in The Gambia.

The way forward for 2010, will be to further strengthen PURA's focus on institutionalising consistency in enforcement and compliance. Increased consultation with the regulated service providers will ensure that the institution's credibility is maintained.

Taking on the regulation of other sectors within PURA's mandate will be a key operational focus. It will require planning and organisation of required capacity and capability. This will challenge the institution further to maximise its potential and provide much needed regulatory interventions in the areas of post, broadcasting and transportation.

The guiding principles of Affordability, Accessibility and Availability of services to The Gambia repeatedly remain core to PURA's work and role. Especially in relation to its public interface with the Government and in a concerted drive towards national development.

I re-state, as I did last year and have indicated in previous years, that the ability to ensure that public regulated utilities deliver services based on these guiding principles will continue to be buttressed by adherence to, and improvement on PURA's core values of Professionalism and Partnership.

# BOARD OF COMMISSIONERS



**Abdoulie M. Touray**  
Chairperson  
(2004-Present)



**Alagi B. Gaye**  
Director General  
(December 2006-Present)



**Maleh Saine**  
Executive Director Technical  
Regulation  
(March 2007-Present)



**Anthony Carvalho**  
Non Executive Commissioner  
(2004-Present)



**Ida M.E Jallow**  
Executive Director Legal  
Licensing & Enforcement  
(March 2005-August2009)



**Amie Joof-Conteh**  
Non Executive Commissioner  
(March 2007-Present)



**Serign Cham**  
Permanent Secretary  
Ministry of Finance & Economic Affairs  
(ex-Officio)

# HEADS OF DEPARTMENTS



**Alagi B. Gaye**  
Director General  
(December 2006-Present)



**Maleh Saine**  
Executive Director Technical  
Regulation  
(March 2007-Present)



**Ida M.E Jallow**  
Executive Director Legal  
Licensing & Enforcement  
(March 2005-August2009)



**Gabriel Latjor Ndow**  
Director Policy Strategy and  
Consumer Affairs

# PART I: CORPORATE GOVERNANCE & HUMAN RESOURCE REVIEW

PURA has a governing Board appointed by the President of the Republic of The Gambia on the recommendation of the Minister of Finance and Economic Affairs. The Board comprises a Chairperson, two non-executive commissioners, two executive commissioners and the Director General. The Administrative and Human Resources Manager is the Secretary to the Board.

One of the Executive Commissioners, Mrs Ida M.E Jallow resigned from the Authority in August 2009 after getting an appointment with an international mobile company, Zain. During the year under review the Finance Assistant also resigned in September and took up appointment with the Ministry of Education.

The vacancy that ensued was filled by a Finance Supervisor. The year also saw the appointment of two extra drivers for the executive commissioners. The staff strength was fairly stable during the year, although few vacant positions are yet to be filled. The staff complement of the institution was 33 at the close of the year and the few added employees have significantly improved the performance and services delivery of the Authority.

In the year 2009, PURA hosted one international meeting, namely Annual General Meeting of the West African Telecommunications Regulatory Assembly (WATRA).

During the period under review, PURA in conjunction with ITU on a cost sharing basis secured the services of a Licensing Consultant, Mrs. Sofie Maddens Toscano to develop a licensing framework for the Communications market. The services of another consultant, Russell Southwood was also procured to develop a Public Private Partnership (PPP) proposal for the liberalisation of the international gateway, through support from USAID.

Apart from the recruitment of staff, the communication infrastructure of the authority was improved upon. Net Page Solutions was contracted through a tender process to supply and install Internet access and reconfigure the local area network.

## ORGANISATIONAL STRUCTURE

**Director General:** - Responsible for the day to day Management of PURA with the objective of improving the efficiency with which public utility services are provided and increasing the percentage of citizens having access to these services. He/she advises the PURA Board on the appropriate framework for regulation of public utilities in The Gambia, in accordance with relevant legislation.

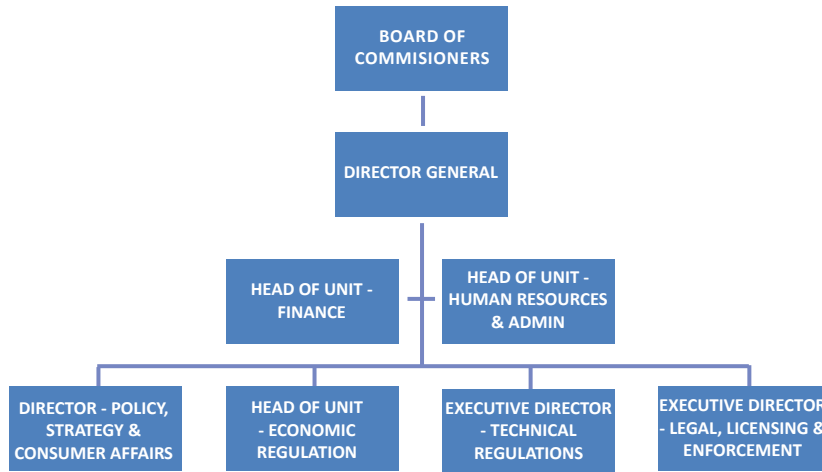
**Legal, Licensing and Enforcement Directorate:** – The Executive Director Legal, Licensing and Enforcement advises the Board and management on all legal matters affecting the Authority. This directorate drafts all legal instruments such as licenses, contracts and regulations of the Authority. This directorate also monitors compliance with regulations.

**Technical Directorate:** – Advises the Board (through the Director General) on issues relevant to the regulation of the water, electricity and telecommunications sector, including spectrum management, numbering administration.

**Economic Regulation Directorate:** – Advises the Board (through the Director General) on rates and tariffs; performs economic and financial analyses; conducts research and develops special studies and forecasts. The directorate also monitors investment programs.

**Administration and Human Resource Management Unit:** – Directly under the office of the Director General, oversees Human resources functions, welfare be hygiene of staff, coordinates administrative activities, and procurement functions of the institution.

**Figure 1: PURA Organisational Chart**



**Policy and Strategy and Consumer Affairs Directorate:** – Receives consumer complaints of utility services and reviews these with the relevant service providers. It monitors the level of consumer satisfaction with services provided by utilities and also PURA’s response to Consumer complaints. It evaluates the performance of the utilities against the respective quality of service standards and assists the Board in publishing information relating to PURA’s functions and activities. It also advises the Board (through the Director General) of the public’s perception of PURA’s performance, and, where appropriate, suggests actions to improve PURA’s image. It also manages the information technology functions. DPSCA also handles PURA’s sensitisation activities, organizes workshops, manages PURA’s internal and external communication and analyses government policies for the sector implementation.

**Finance Unit:** - Directly under the Office of the Director General, this unit oversees and manages the Budget and funds of the office as well as drawing of the monthly management accounts and giving the necessary financial advice. It is also responsible for the invoicing of regulatory fees and the follow up on the payment of the said invoices and subventions due to the office.

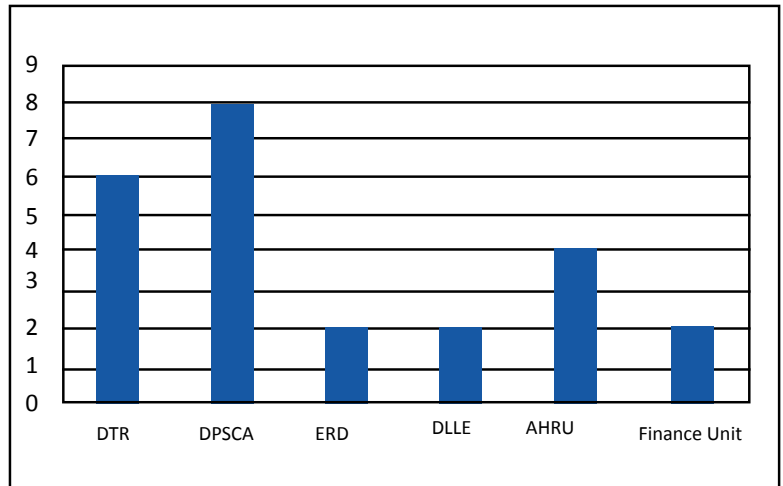
**TRAINING AND DEVELOPMENT**

During the year 2009, PURA was able to offer each and every professional staff at least one week training in his/her core operational area, in a world class institution, both within and outside the country. One job placement study was under taken during the year under review by the Senior Finance Manager.

As the recommendations of the Regulatory framework study made it mandatory for all professional staff to attend the fundamental course on utility regulation at the Public Utilities Research Center (PURC) of the University of Florida, by the end of the year 2009 six of the existing members of staff have been trained on this regulatory program.

The members of staff that attended the PURC training are Executive Director Technical regulations, Executive Director Policy Strategy and Consumer Affairs, Senior Communications Manager, Senior Economist, and Senior Finance Manager. While Legal, Licensing and Enforcement Manager and Water Engineer attended IP3 Training in their various areas. During the year, the Executive Director Technical Regulation attended a training hosted by the US Telecommunications Training Institute (USTTI) with the support of the American Embassy and the Spectrum Manager attended USTTI Training on USTTI partial fellowship. The Executive Director Legal Licensing and Enforcement also attended a training on Telecommunications Management at the Telecommunications Management Institute of Canada (TEMIC) on partial fellowship.

**Figure 2: Chart Showing Staff Training By Directorate**



## PART II: FINANCIAL REVIEW

PURA depends on two main sources for its income. These are regulatory fees from regulated utilities and government subvention.

The amount demanded from operators as regulatory fees is based on the annual budget of PURA, which is approved by the Board of Commissioners. The amount collectible as regulatory fees was pegged at a ceiling of 1.5% of the operators' turnover, which is one of the lowest rates charged by regulatory authorities in Africa. The ceiling was determined to ensure that operators do not incur exorbitant regulatory charges which are passed on to consumers. In the year 2009, 1.3% of operators' turnover was invoiced.

**Table 1: Budgeted vs. Actual Income in Dalasi (2009).**

SOURCE OF FUNDS	BUDGET (D)	ACTUAL (D)	AMOUNT OUTSTANDING (D)
Government	3,800,000	3,800,000	0.00
GAMTEL	11,761,542	8,821,157	2,940,385
AFRICELL	10,825,256	9,500,000	1,325,256
GAMCEL	8,162,856	8,162,856	0.00
COMIUM	742,316	742,316	0.00
G.E.G	4,465,402	2,000,000	2,465,402
QUANTUMNET	50,000	50,000	0.00
NETPAGE SOLUTION	50,000	50,000	0.00
NAWEC	6,448,608	5,000,000	1,448,608
GAMPOST	50,000	50,000	0.00
UNIQUE SOLUTION	50,000	0.00	50,000
<b>TOTAL</b>	<b>46,405,980</b>	<b>38,176,329</b>	<b>8,229,651</b>

Despite that consideration, the payment of regulatory fees by NAWEC and GEG has not been encouraging. Out of the amount of D42.606 million budgeted as regulatory fees income, only D34.376 million was collected and Government subvention budgeted was D3.8million and the amount collected was D3.8million, as shown in Table 1 above. Undoubtedly, the non compliance by NAWEC and GEG has continued to hamper the implementation of some of PURA's regulatory activities in the energy sector.

The status of regulatory fees payment and government subvention is depicted in Table 1 above. All the telecoms operators and ISPs have fully paid their regulatory fees for 2009, except GAMTEL, AFRICELL and UNIQUE SOLUTIONS; as shown in Table 1 above. GEG only paid D2,000,000.00 leaving an outstanding balance of D2.465 million, NAWEC did paid D5,000,000.00 leaving a balance of D1.448million, Africell paid D9.5million leaving a balance of D1,325million and GAMTEL paid D8.821million leaving a balance of D2.940million for 2009 regulatory fees invoiced.

The major expenditure of the Authority has been on staff cost; the same as of last year. The Authority has been very prudent in utilising its financial resources. However, with the recruitment of more staff, and the outlook for the next nine months it is envisaged that more resources would be spent on the procurement of essential Spectrum monitoring equipments and staff training, consumer outreach and sensitisation programmes, Consumer parliament sessions, consultancies and other staff incentive policies.

# Part III: MARKET DEVELOPMENT REVIEW

## MACRO ECONOMIC PERFORMANCE

The Gambian economy performed better in 2009 than was previously projected. Real GDP grew at a rate of about 5% in 2009, compared to 6.1% and 7% registered in 2008 and 2007 respectively. The growth rates though decelerating remain positively strong in a second consecutive year due to the strong growth in agriculture, largely because of good rains and the successful expansion of rice farming, helping to offset the negative impact of the global financial crisis, particularly on the rural poor. Tourism and residential construction, however, have taken a hard hit. A sharp drop in remittances from the Gambian Diaspora greatly limited financing for home building and purchases.

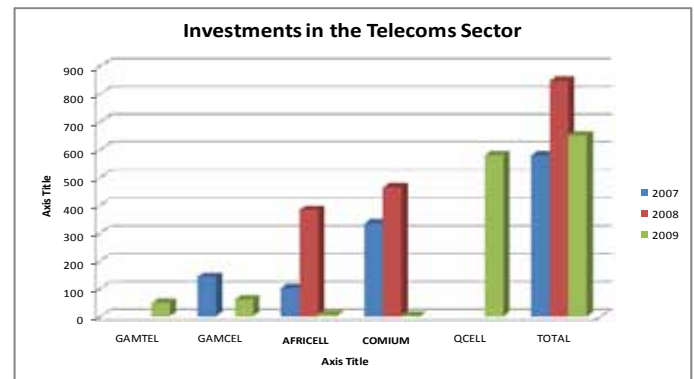
Agricultural output grew at a modest rate of 9.8 percent in 2009, down from a growth rate of 26.6 percent in 2008. Crop production is estimated to register 14.3 percent in real terms, Fishing 5.1 percent, Livestock 4.5 percent and Forestry 0.7 percent. The high rate of growth in agricultural output in 2008 was due to a rebound in agricultural output as a result of favourable rains after three consecutive drought years resulting in negative agricultural growth of 2.3 percent, 14.3 percent and 1.9 percent in 2005, 2006 and 2007 respectively.

The Service and Industrial sectors, which includes the regulated sectors, of communication, electricity and water accounted for 75% of national output, while the remaining 25% accounted for Agriculture. The Service sector remains fairly buoyant, with all service activities registering growth with the exception of Tourism, which registered a decline of about 25 percent as at end September 2009. Distributive Trade is projected to grow by 6 percent, Finance and Insurance Services by 11 percent, and Transport, Storage and Communication by 5 percent.

The growth rate of industrial output improved from -1.2 percent in 2008 to 3.5 percent in 2009. This is on account of sustained strong growth in Mining and Quarrying, Electricity, Gas and Water, and Construction.

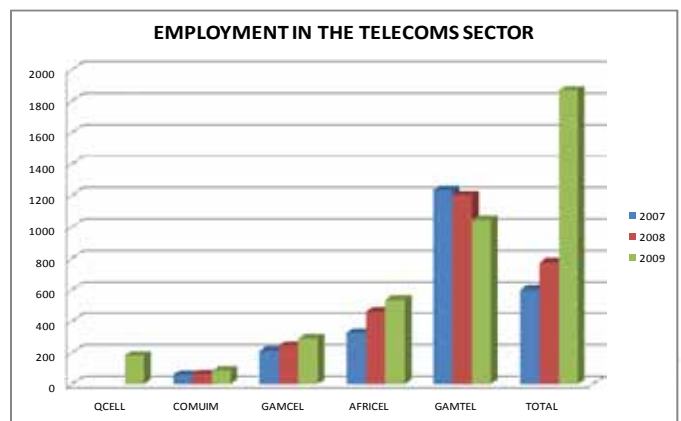
Annual Investment in the Telecommunication Sector reported was equivalent to D699.3 million in 2009 compared to the 2008 figures of D847 million. This shows a 17.4% fall in investment figures in the sector. The reported figures shows QCell with the highest investment figures in 2009 explained by the fact that they came into the market in mid 2009.

Figure 3: Investment In The Telecoms Sector



The sector reported that 2,139 people were employed at the end of 2009, from the 2007 and 2008 levels of 1976 and 1840 employees respectively. This shows that the sector has registered moderate 8.3% growth in employment during the period under review.

Figure 4: Employment in the Telecoms Sector



## THE TELECOMMUNICATIONS MARKET STRUCTURE

The Gambia Telecommunications industry comprises a fixed network operator; GAMTEL and four mobile operators GAMCEL, AFRICELL, COMIUM, and QCELL. The fixed network operator offers telephone, Internet, and to a limited extent telex and telegraph services. The mobile operators GAMCEL, AFRICELL, COMIUM and QCELL came into the market in May 2001, October 2001, April 2007, and July 2009 respectively to provide GSM cellular voice and data services.

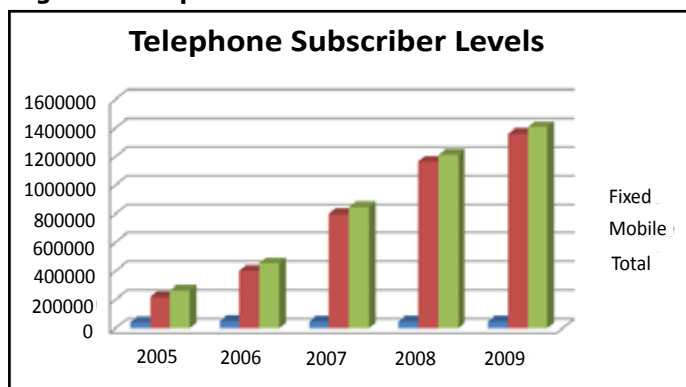
## THE VOICE MARKET

### Subscriber Figures

The telecoms sector reported 1,409,732 voice subscribers in 2009 a net addition of 194,732 voice subscriber to the 2008 figures of 1,215,004 voice subscribers, which represented 3.6% growth. Out of the reported 1,409,732 voice subscribers.

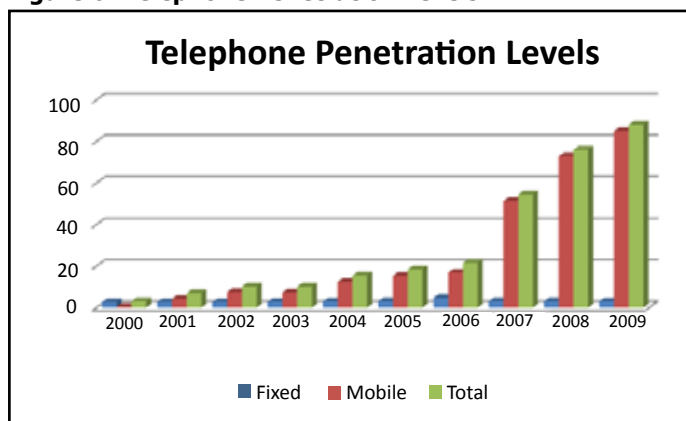
The number of reported mobile subscribers grew by 16.7% during 2009 compared to 45.9% recorded during 2008; whilst the fixed line subscribers had recorded a decrease in growth rate of -0.8%. The less impressive growth in the mobile subscriber numbers in 2009 could be as a result of the market reaching saturation.

**Figure 5: Telephone Subscriber Levels**



The telephone penetration level (tele-density) measured as the percentage of the population owning a fixed and or mobile service has been very impressive over the last three years, 2007, 2008 and 2009, registering, 54.47%, 76% and 88.11% respectively. This impressive performance in the penetrations level is as a result of the strong performance registered in the mobile subscriber base. The mobile penetration level constitutes about 94%, 96% and 97% of the total penetration levels in 2007, 2008, and 2009 respectively.

**Figure 6: Telephone Penetration Levels**



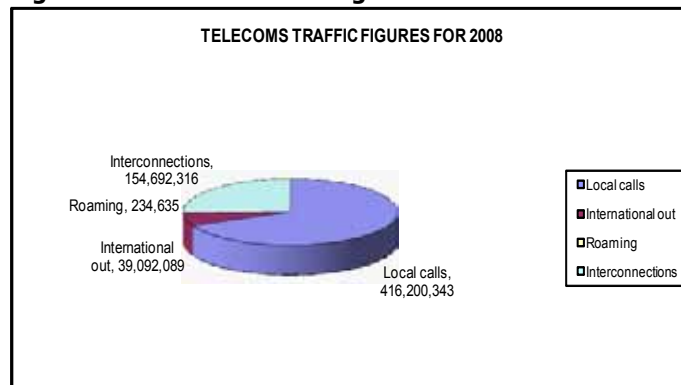
**Table 2 :Telephone Penetrations Level**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Fixed	2.65	2.71	2.66	2.81	2.99	3.05	4.72	3.08	3.05	3.03
Mobile	0.45	4.26	7.53	7.33	12.5	15.4	16.9	51.4	72.91	85.08
Total	3.09	6.97	10.19	10.14	15.5	18.4	21.6	54.5	76	88.11

## VOICE TRAFFIC FIGURES

Total volume of voice traffic reported for 2009 was 478,204,966 minutes of which 51.25% were local traffic and 2.18% were international traffic. The interconnection traffic generated constituted about 46.55%, while roaming constituted only 0.02% of the total traffic volumes in 2009.

**Figure 7: Telecoms Traffic Figures For 2009**



## TARIFFS

In 2009, like in 2008, the reported average mobile on-net local peak call charge was D2.88 per minute and the average fixed line on-net local call charge was D0.73. As a result of the determination made by PURA following the Interconnection Study by an ITU consultant in the last quarter of 2008, the off net local peak mobile and fixed call charges went down to D3.23 and D2.98 from D4.38 and D3.93 respectively, and these rates remain the same throughout 2009. The average peak international call charges for zones 1, 2, and 3 are D8.00, D14.60 and D17.90 respectively for 2009. With the Short Messaging Services (SMS) the on net average tariff is D0.46 and D1.00 off-net, whilst the international rate on SMS is D3.00.

## THE DATA MARKET

Data Services in The Gambia comprises of Internet Services provided by the commercial ISPs and text and picture messaging services provided by the mobile operators GAMCEL, AFRICELL, and COMIUM and QCELL. There were five commercial ISPs in The Gambia, GAMTEL's ISP, Net page Solution QuantumNet, GAMPOST and Unique solution. All the ISPs channelled their Internet traffic through the international gateway owned by GAMTEL.



## THE ELECTRICITY AND WATER MARKETS

The Electricity sector in The Gambia continues to be dominated by NAWEC as the sole distributor and transmitter. As a policy decision the deregulation of the generation component has continued to pay dividends as electricity supply during the period under review remained steady. The IPP in Brikama continues to be the main partner in the generation stream while that of the 150 KW in the Batokunku wind Power project is there mainly to showcase the country's potential in the provision of alternative sources of energy. PURA through its stakeholders consultations have continually clamoured for finding a way of exploring the use of renewable energy for sustainability and affordability.

In order to address the issue of affordability, PURA conducted a comprehensive tariff study with a view to coming up with cost based tariffs for the water and electricity sector. The study has since been completed and as part of the recommendation of the study electricity rates were reduced in November 2009 as shown in the table below.

**Table 3: Change In National Electricity Price**

Customer Class	kWh Consumption	Old Rate	Rate after PURA Determination	% change (reduction)
Domestic Credit Meters	0-40	2.20	2.20	0
	41-600	6.83	6.50	4.83
	601-1000	7.50	7.00	7.65
	above-1000	9.07	8.00	11.80
Cash Power	Flat rate	6.83	6.50	4.83
Commercial		9.43	8.00	15.16
Hotel/Industries		10.43	8.50	15.10
Agriculture		9.07	8.00	11.80
Area Councils		9.07	8.00	11.80
Central Government		9.07	8.00	11.80

A closer look at the table above will show that even though reduction in the domestic tariffs (average 8.1%) is not very significant, the industrial rates were greatly reduced by about 18.5%.

The challenge on the part of NAWEC was and continues to be that of access in the growth centres within the Greater Banjul Area. There are still greater part of the GBA that is still under served and non-existent infrastructure in some areas and studies have confirmed that there is high suppressed demand within the GBA. NAWEC is conscious of this fact and plans are on the way to have the network upgraded to be able to effectively expand their services to areas that are under-served.

## ELECTRICITY GENERATION

Electricity Generation in this country as explained earlier is deregulated and there are two principal players. NAWEC as the incumbent which has its generators at Kotu Power station for the GBA with an available output of 35MW at peak load and a number of stand alone power stations in the major provincial towns. The IPP in Brikama is the second principal player in the generation stream and has an available output of 16.5 MW at peak load as shown in the table below.

**Table 4: Power Stations, Number of Engines and Available Capacities**

Kotu Power Station		Installed	Available
Location/Unit	Type	MW	MW
KPS-G1	Mirrless	3.0	2.5
KPS-G2	Mirrless	3.0	2.5
KPS-G3	Mirrless	3.4	2.5
KPS-G4	Deutz	6.4	5.5
KPS-G6	BWSC	6.4	5.5
KPS-G7	Deutz	6.4	5.5
KPS-G8	Deutz	6.4	5.5
KPS-G9	Deutz	6.4	5.5
		41.4	35
IPP Brikama Power Station 2009		Installed	Available
Location/Unit	Type	MW	MW
BRK-G1	Deutz	6.4	5.5
BRK-G2	Deutz	6.4	5.5
BRK-G3	Deutz	6.4	5.5
BRK-G4	Deutz	6.4	5.5
		25.6	22

## TRANSMISSION AND DISTRIBUTION

Electricity is transmitted for distribution via five radial 11-kV feeders and three 33 kV feeders that form a ring in the GBA. The 33 kV feeders supply medium voltage substations where the voltages are transformed to 11 kV for further distribution.

By end of 2009, NAWEC had a total customer base of 86,349 in 990 customer demarcated zones grouped in seven categories as shown in Table in the tables following.

**Table 5: Number of Customers Per Category (2005 - 2009)**

Year	2005	2006	2007	2008	2009
Domestic	45,874	46,512	48,517	50,390	53,898
Commercial (NGO'S, Schools, etc)	6,050	6,139	6,159	6,177	6,262
Major Consumers (Industries, Banks, Supermarkets, etc)	521	568	598	636	683
Agriculture	54	55		54	54
Local Government Authorities	1,076	1,078	1,084	1,093	2,590
Central Government	1,401	1,391	1,409	1,415	40,396
Prepayment Customers	n/a	10,662	17,212	26,584	53,898
<b>TOTAL</b>	<b>54,976</b>	<b>66,405</b>	<b>75,034</b>	<b>86,349</b>	<b>103,883</b>

\*Based on 6MW increment in annual power demand

**Table 6: Status of The Electricity Market**

ITEMS	2005	2006	2007	2008	2009
Customer Population	54,976	66,405	75,034	86,349	103,883
Sales KWH - Credit	91,889,449	111,255,946	118,924,655	115,776,033	6,397,094
Sales KWH - Prepayment					59,024,679
Rev. Collection Credit	559,008,269	703,043,231	1,064,723,110	970,850,817	777,262,398
Prepayment sales	N/A	N/A	N/A	300,419,121	456,083,156
System Losses		41.25	40.8%	39%	33.34%
Power Demand MW	66	78	88	90	
Demand MWh	312210	368970	416280	473040	
Customer growth p/a %	35.7	20.7	7.5	15.1	
Energy Demand Growth rate %	7.4	18.18	N/A	N/A	
Power Demand Growth rate %	18	18	N/A	N/A	

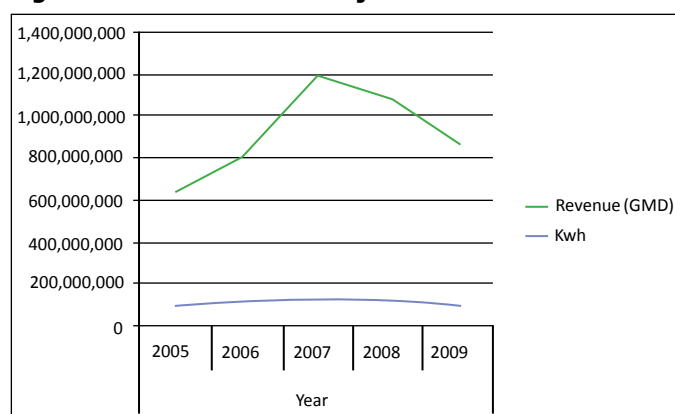
An analysis of the kilowatt sales from 2005 to 2009 indicates an initial increase in the first 3 years (2005-2007) but decline thereafter. The reason for the decline is as a result of the adoption of the prepayment system as opposed to the conventional credit meters. NAWEC favoured the prepayment system and has a policy of encouraging domestic consumers to migrate to the prepayment platform. When this scheme is successful the problem of unpaid bills will be drastically reduced and with an improved cashflow much of the expected improvement in the system will be eventually carried out.

Figure 8 below shows the revenue versus the kilowatt sales (Credit) and showed that even though the kilowatt-hour sales are almost constant revenue increased sharply from 2005 to 2007 and dropped thereafter. A closer look at Table 6 above will show a corresponding increase in the revenue realized from prepayment sales. From a figure of D300.42 million, the sales rose to D456.08 million in 2009 representing an increase of 52%. If this trend continues we should expect a bright future for the company.

## WATER SERVICE PROVISION

In the Gambia, the main source of Water is underground water and NAWEC continues to be the sole provider in both the urban and rural growth Centres. However in the rural Areas pipe borne water is provided through the Department of water resources in collaboration with donour agencies and NGOs. The stand alone water sources have greatly enhanced the well being and access to clean water for the Gambian populace.

**Figure 8: Credit Revenue Projections 2005 - 2009**



During the period under review NAWEC has greatly expanded the water supply network with the commissioning of the Greater Banjul Water Supply Project. This project could not have come at a better time considering the massive migration witnessed around the coastal area ushered in by the construction of the Kombo Coastal highway. The project added 14 new boreholes to the network and expanded the coverage up to Kombo South in the western region of the country.

**Table 7: Various Well Fields and The Number of Boreholes in Each Well Field.**

Well fields	No. of Boreholes		Status
	2008	2009	
Salagi & Jambur	15	15	Operating
Wellingara & Sukuta	11	11	Operating
Fajara	6	6	Operating
Brikama	2	16	Operating
Yundum	3	3	Operating
Kanifing	1	1	Operating
Kerr Sereign	1	1	Operating
<b>TOTAL (GBA)</b>	<b>39</b>	<b>53</b>	
Provinces	13	13	Operating

The provision of potable water in the 5 Administrative divisions still remains ad hoc even though the local governments have a legal mandate to provide the service. The provincial service is characterized by numerous actors with UN agencies and NGOs being the principal actors. Various technologies are used for providing water ranging from solar energy to wells fitted with hand pump.

## WATER QUANTITY SOLD AND REVENUE

The quantity of water sold and revenue generated during the period 2005 to 2009 is shown in Table 6 below.

**Table 8: Volume Of Water Sold And Revenue Collected**

Year	Quantity sold in (m3)	Revenue Generated (Dalasi)
2005	12,683,728	99,378,992.78
2006	12,746,884	106,182,076.05
2007	15,106,454	149,392,820.74
2008	13,939,154	139,037,861.72
2009	23,724,864	141,642,524.56

The table above depicts a very interesting scenario in that from 2005 the growth in revenue corresponds with the increase in cubic metres. However in 2009 the company nearly double the water supply but the increase in revenue was very insignificant. This development is very disturbing considering the fact a lot of expansion took place in the sector. NAWEC should look into these discrepancies and come up with a robust approach in dealing with the matter if they want to reap the benefits of the investment carried out in the sector. PURA expressed similar concerns in last year's report and suggested that the company address the issue of unmetered water in the system. That in our opinion in addition to revenue collection inefficiencies could be the problem because the tariff for the sector has remained unchanged during the period under review.

# PART IV: CONSUMER AFFAIRS REVIEW

## CONSUMER QUERY LOGGING DATABASE (148)

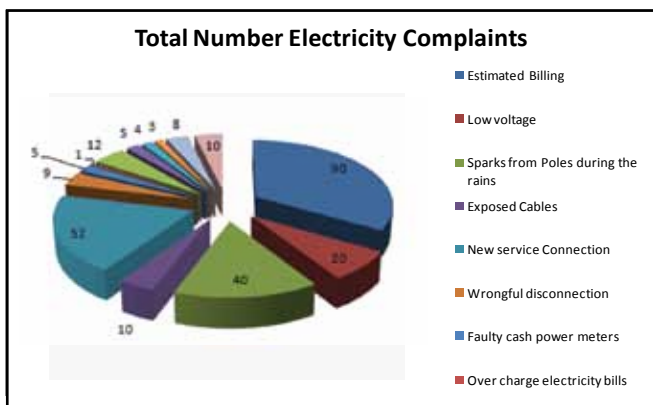
Since the launch of the Consumer Query Logging Database in 2008, the system has handled many complaints from consumers pertaining to the regulated utility services of electricity, water and telecommunications. It is in this vein that this report was compiled, so as to inform the general public as to progress made with regards to the consumer query data logging database in relation to its hot line (148), divided into sectors of regulated entities.

### ELECTRICITY

The electricity related complaints received during the period under consideration amounts to a total of 279, out of which 32% of complaints received were estimated billing related; hot on the heels of this is perhaps one of the new areas in terms of all complaints received from NAWEC; new service connections, which we have noticed is increasingly becoming an area of conflict between NAWEC and its costumers. This is reflected in its growing share as quantified by complaints received standing at 19%. However, another area which came as a surprise, accounting for 14% was the amount of complaints received during the period related to actual infrastructural problems of poles hanging on wires and or wires hanging dangerously.

This is followed by the usual dispute of disconnections, which stood at 3.23% whilst problems associated with reconnections stood at 2.87%. However, it needs to be noted that service connections done by 3rd parties was taken into account separately, and as such (BB Electrical) connection related complaints which was noted to be 1.43% of all complaints received during the period under review. Complaints related to overcharging on electricity bills was found to be a lowly 0.36%.

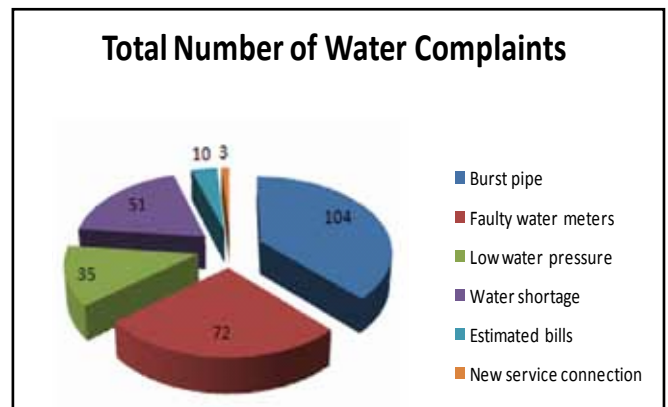
**Figure 9: Breakdown of Electricity Complaints**



### WATER

The water related complaints for the period amounts to 275, and true to popular belief, the review found that burst pipes are the most complained about issue for this period, as it stood at 38%, whilst 13% of complainants are more concerned with low water pressure. Faulty meters still disturbingly accounts for 26% which notwithstanding was not reflected as a direct result of complaints received about estimated bills, which encouragingly stood at 4%. Water shortage, on the other hand was identified by 18% of complainants during the period under review as an area of concern. Finally, cost of new service connections are said to be too high by 1% of complainants.

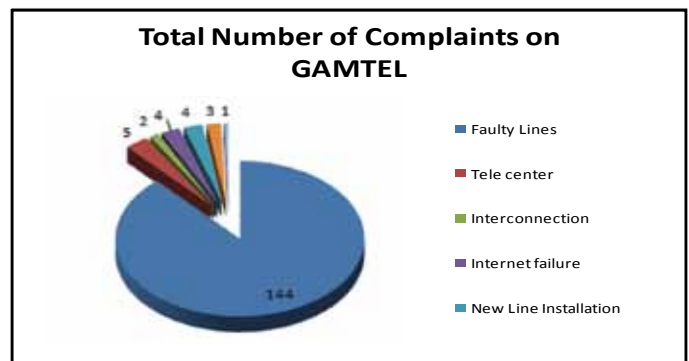
**Figure 10: Breakdown Of Water Service Complaints**



### GAMTEL

The review found that 88% of complaints received from their consumers are related to faulty lines. During the review it was also found that most of these complaints were recurring within a short spate of time; correspondingly the amount of billing related complaints was found to be on the low side at 2%, since one cannot bill one for a line that does not work. Force majeure accounted for 1% of the total complaints received.

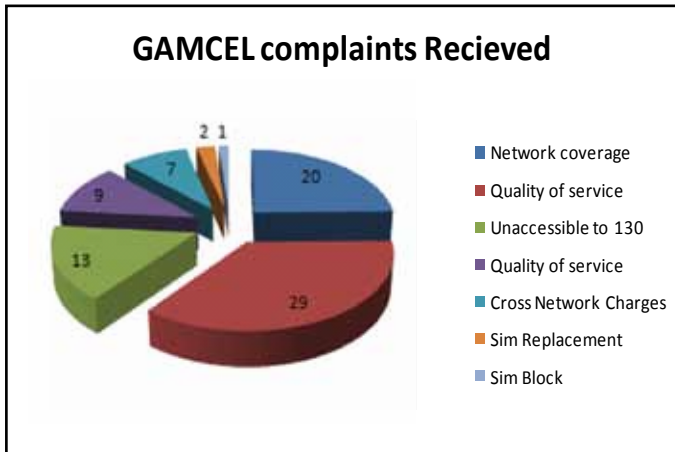
**Figure 11: Breakdown of Complaints on Gamtel's Services**



## GAMCEL

On the other hand has 36% of their customers complaining of their quality of service whilst 25% have a bone to pick with their network coverage. As shown below the reason associated with the high level of complaints regarding GAMCEL is one of inability of their customers to reach their customer care staffs on 130, which itself accounts for 16% of complaints received.

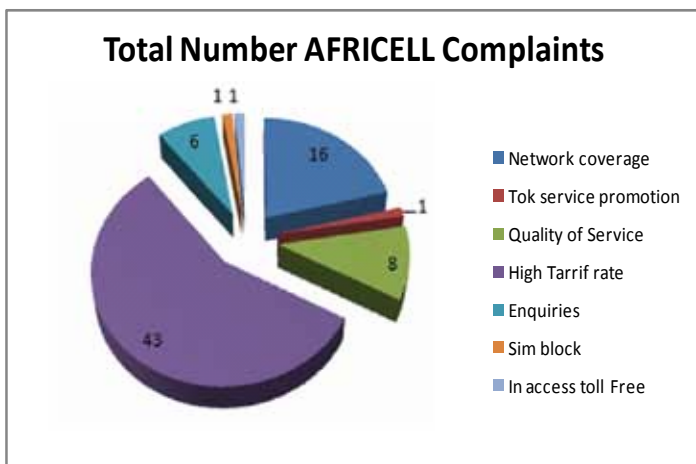
Figure 12: Breakdown Of Complaints On Gamcel's Services



## AFRICELL

The total number of complaints received during the period for Africell amounts to 76 out of which 57% of their complainants were tariff related, ranging from high cost of their calls and how quickly their credit runs out. Network coverage accounted for 21% of the total number of complaints received. However, it has to be noted that the remaining 22% is divided into SIM-block, inability to access their toll free number and network connectivity problems respectively.

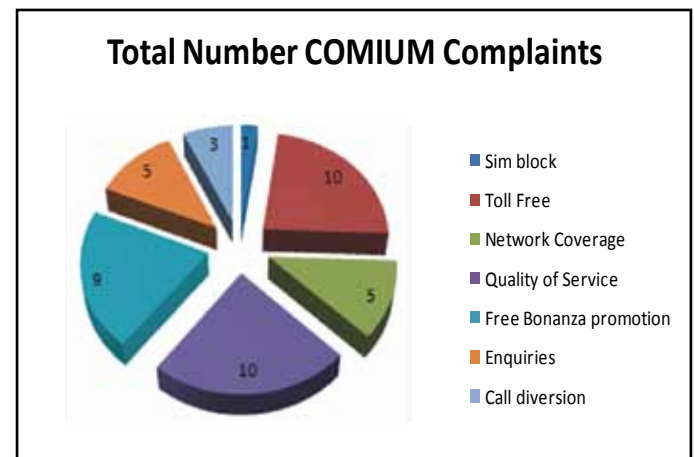
Figure 13: Breakdown of Complaints Related to Africell's Services



## COMIUM

Regarding Comium's services, the number of complaints received was 53. It has to be noted that out of all telecomm operators under review Comium had the least amount of complaints. However, 23% of complainants have concern about their inability to access both their customer care number and centres as these are limited in number especially for those of their customers living in the provincial areas, another 23% have a bone to pick with them regarding their quality of service, whilst 21% of complaints have an issue to raise with their free bonanza, while 12% complain about their network coverage. The rest of the complaints are shared between call diversion 7%, SIM block 2% and enquiries 1%, which are routine problems that could have been easily resolved by their customer care team if they could get hold of them.

Figure 14: Breakdown of Complaints Related to Comium's Services



## INTERNET SERVICE PROVIDERS

This group of operators, on the other hand have registered no complaints against them during the period under review. This is the kind of position that we as an Authority would like to be in, because it translates simply that they take care of all their complainants before they reach us. Therefore Unique Solutions, Net page, and QuantumNet respectively need to be commended for a job well done.

## SECOND AND THIRD CONSUMER PARLIAMENT

The 2nd and 3rd sessions of the Consumer Parliament of the regulated sectors of Public Utilities Regulatory Authority were convened under the umbrella of consumer advocacy, as envisaged by the PURA Act, which mandates the Authority to protect the interest of consumers. The Second Consumer Parliament was held at the Alliance Franco Gambian Centre along Kairaba Avenue on the 21st of March 2009 whilst the Third Consumer Parliament took place on the 5th of December, 2009 at The Gambia College Campus, Brikama. In both cases the format was the same with senior managers of all operators responding to questions from consumers directly.

**Figure 15: A Strong Representation by all Operators at the Consumer Parliament**



**Figure 16: Representatives of Operators answering questions. Translations in Wolof and Mandinka were also provided at the 3rd Consumer Parliament in Brikama**



The meeting which as its predecessors at Alliance Franco Gambia and Paradise Suites Hotel, based on its attendance and the importance attached to it by operators shows how it has within a short period of time gained wide acceptance in the country and at the international arena. Naturally this recognition stems from its effectiveness and it's on-the-spot dispute resolution capability.

The objectives of the program are as follows:

- To educate utility consumers on their rights and obligations
- To serve as an inexpensive and quick dispute resolution mechanism between operators and consumers
- To serve as an interactive forum for bridging the gap between operators and consumers
- To give consumers the platform to air their views and suggestions on how to move the industry forward
- To institutionalize public accountability on the part of the operators and PURA, thereby making reign transparency in the industry
- To get stakeholders views, reactions and inputs into regulatory policies and programs
- To provide reliable feedback to the Authority for effective regulation.

The parliament was a success based on the interventions that consumers made, regarding the services that they consume, and they include and are not limited to:-

- High cost of tariffs
- Electricity, Water & Sewage Services
- Poor service delivery
- Cost of calls
- Network problems
- Conduct of Advertisements by telecom operators
- Energy saving Concerns

**Figure 17: Consumers Having The Opportunity For A Detailed Explanation**



As envisaged by the concept of the consumer parliament all the above issues were tackled in one form or another by Parliamentarians who had the opportunity to ask questions while the Operators provided some answers to some of those questions on the spot, while other questions which could not be answered and needed reference and further consultations were noted by both the responding operator and PURA. The parliament which is the third of its kind ended, with full attendance registered from all the operators namely GAMTEL, GAMCEL, AFRICEL, COMIUM, QCELL, Quantumnet, NETPAGE, and NAWEC for electricity and water.

# PART V: LEGAL AND COMPLIANCE REVIEW

The sector specific legislation, the Information and Communication Act 2009 (IC Act 2009) was enacted by the National Assembly on the 29th day of May 2009 and subsequently signed by the President of the Republic of The Gambia. This legislation has harmonised all provisions from the ECOWAS supplementary Acts such as cyber crime, Computer misuse, Electronic records and signatures and Processing of personal data and protection of privacy. The IC Act 2009 also provides for Dispute Resolution, Ensuring Competition and Licensing of Broadcasting services. The Gambia is one of the three ECOWAS member states that completed the process of harmonisation. The Gambia is also one of the first African states to enact a legislation that encompasses technological convergence as a principle.

The IC Act 2009 has legally mandated the Authority to regulate the Information and Communication sector based on fundamental principles such as to:

a) fostering transparency and non-discrimination and protecting effective competition and a fair and efficient market between the organizations involved in the information and communications industry, duly taking into account the public interest and preventing distortion and restriction of competition in the information and communications sector

b) ensure that there are provided in The Gambia, except where the provision is impracticable, such information and communications services as will satisfy all reasonable demands for them, including, in particular, emergency services, public pay telephone services, and directory information services;

c) promote the interests of consumers, purchasers and other users in The Gambia, including in particular those who are disabled or of pensionable age, with regard to prices charged for, and the quality and variety of, Information and Communications services provided and Information and Communications apparatus supplied;

d) promote open network provision and effective competition among licensees in The Gambia;

e) to process license applications and to prepare and carry out licensing procedures by competitive bidding, and make licensing recommendations based on such procedures to the Minister, as well as to prepare and update for adoption by the Minister and in consultation with the Ministry, the texts for the licensing terms of reference that lay down the rights and obligations applicable to any authorisation

however so described, and returns and reports to be made to the Authority;

f) to advise the Minister on policy formulation and development strategies for the information and communications industry;

g) to develop regulations for adoption by the Minister in the Information and Communications field, after consultation of stakeholders in accordance with the Act;

## LICENSING

In line with the provisions of shared responsibility, the Ministry of Information and Communication Infrastructure officially handed over licensing responsibilities and all pending license applications to PURA on the 16th day of July 2009 for processing. All licenses are signed and issued by the Minister responsible for Information and Communication Infrastructure based on the recommendation of the Authority.

QCELL Company was issued with the first 3G GSM license on the 7th day of July 2009. Shortly thereafter, Africell Gambia was also issued a 3G license effective from the 17th day of November 2009. A third application for a 3G GSM license was also received from GAMCEL on the 16th day of December 2009.

The Authority also received and considered applications for FM commercial radio stations, FM community radio stations, VSAT network facilities, 5.8 MHz frequency bands, VHF operational license, mobile radio frequencies, marine communication licenses and amateur radio licenses. Broadcasting licenses are considered and evaluated on the following basis as provided for in the IC Act 2009.

- (a) capability, experience and expertise of the applicant in as far as carrying out such broadcast service is concerned
- (b) financial means and business record of the applicant
- (c) expected technical quality of the proposed service, having regard to the developments in the broadcasting technology
- (d) compliance with the prescribed technical broadcasting standards



- (e) the desirability or otherwise of allowing any person or association of person, to have control of a substantial interest in
  - i. more than one broadcasting service
  - ii. more than one radio station and one television station and one registered newspaper which a common coverage and distribution area or significantly overlapping coverage and distribution areas
- (f) the desirability of giving priority to community-based or national development broadcasts
- (g) whether the conditions of a broadcasting licence shall unjustly benefit one holder of a broadcasting licence above another
- (h) the allocation of spectrum resources in such a manner as to ensure the widest possible diversity of programming and the optimal utilisation of such resources, provide that priority may be given to broadcasters transmitting the maximum number of hours per day
- (i) the reservation of spectrum resources for future use
- (j) efficiency and economy in the provision of broadcasting services
- (k) the extent to which the applicant is determined and has planned to train local staff in matters concerning radio or television broadcasting.
- (l) any other matter as the Authority may consider necessary.

Under the IC Act 2009, all license holders are deemed to be interim license holders until the Authority provides them with new licenses which must take into account all the requirements under the new legislation.

Further to this provision, PURA enlisted an ITU consultant to assist with the establishment of a licensing regime which would include application processes and license documents. These services were enlisted in December 2009 and the process is expected to be completed August 2010.

## ENFORCEMENT

A legal notice was issued to GAMCEL on the 19th day of August 2009 for selling international calls at GMD 7.40 on the 22nd day of July 2009 which was not compliant with a determination issued by PURA on the 18th of September 2008. The determination stated that no GSM operator was to sell international calls at a rate lower than the wholesale rate. The legal notice stipulated that GAMCEL was to pay a fine of GMD 50,000 (fifty thousand Dalasi) in order to rectify the act of non compliance. GAMCEL complied with the legal notice by the stipulated deadline.

# PART VI: REGULATORY ACTIVITIES

## TELECOMMUNICATIONS

From 12-14 January 2009, PURA received a delegation led by the Chairman of the communications regulatory authority of Sierra Leone (NATCOM) embarking on a technical visit to learn and share experiences with PURA on issues pertaining to Spectrum management and monitoring, quality of service and legal affairs amongst other things. While in The Gambia, the delegation had an opportunity to meet with several stakeholders including the Minister of Communication, information, and Information Technology.

The optimism expressed and generated will not only be a source of inspiration that will bring new initiatives and opportunities in the telecoms sector in both countries but will help shape the socio-economic development in the two countries.

**PURA DG exchanges MOU documents with the NATCOM delegation**



A memorandum of understanding between PURA and NATCOM was signed with a view to strengthen cooperation in the areas of numbering, licensing, spectrum management and monitoring, interconnection, quality of service and knowledge sharing.

**PURA & NATCOM officials at the MOU signing ceremony**



As the liberalization of the telecom market progresses new technologies such as third generation mobile (3G) Wireless internet service that were not available using 3G phones/USB suddenly became available due to the well sustained intense competition in The Gambia. The deployment of Qcell's 3G services is however limited to the Greater Banjul Area, Farafenni and Basse where customers can access internet services at theoretical speeds of 2Mbps through their mobile phones or laptop/desktop devices.

It was therefore imperative for PURA to accommodate these technologies by issuing Qcell a technology neutral license taking cognisance of the following:

- i Education is seeing dramatic growth in online instruction worldwide, and thousands of digital libraries are now available via the Internet.
- ii Governments continue to adopt ICT to spur demand for their ICT sectors and deliver services more effectively and efficiently to businesses and citizens.
- iii Financial services are expanding but at a slower rate than information technology, which can be used to support the expansion. It is estimated that there are 1 billion people in the world who have mobile phones, but have no access to banking. Money sent from people in the Diaspora to The Gambia can be delivered more cost-effectively through the availability of rapid and advanced ICT services.
- iv Health services are expanding in innovative ways that lower costs and expand delivery through ICT. ICT devices can assist with monitoring community health and medicine inventories, serving to alert local authorities to potential disease outbreaks or shortages of medicine.
- v Business has been shown to benefit from the increased labour productivity following increased access to ICT services, by some estimates increasing by over 20%. A World Bank study has calculated that a 1% increase in Internet users increases total exports by 4.3%.

### **REVIEW OF CCS #7 SIGNALLING POINT CODES**

The Common Channel Signalling Number Seven (CCS#7) signalling point codes are utilized by the various components of the digital equipment to communicate among each other. These are also scarce numbering resources, which need to be planned and managed in order to adequately meet the requirements of all the operators. A review was done on the status of the Signalling Point Code assignment and a table of a national table of Signalling Point Code Plan and assignment was produced. The status and use of the CCS#7 signalling was finalized and streamlined following which Qcell was allocated CCS#7 codes to operate its 3G and GSM networks.

### **MONITORING**

The primary objective of the universal access is to expand and maintain availability of good quality and affordable telecommunications services to the public, including the under served as well as the un-served who would not normally be served (e.g. high cost service areas such as rural areas and lower income groups); the key features here being affordability, accessibility, and availability and acceptability of the service.

One of PURA's mandates is to ensure that there is sufficient provision of efficient and effective communication services in The Gambia. As such, it has to ensure that network operators and service providers comply with the quality of service indicators specified in the quality of service regulatory framework drafted by PURA.

Since deregulation of the telecommunications sector, all operators have been increasing their coverage by rolling out networks to the areas with services in addition to enhancing the capacity of already covered areas.

Operators in The Gambia have since made significant strides in fulfilling universal service obligations in the country without the required obligation to do so in their license conditions. This is indeed very much commendable.

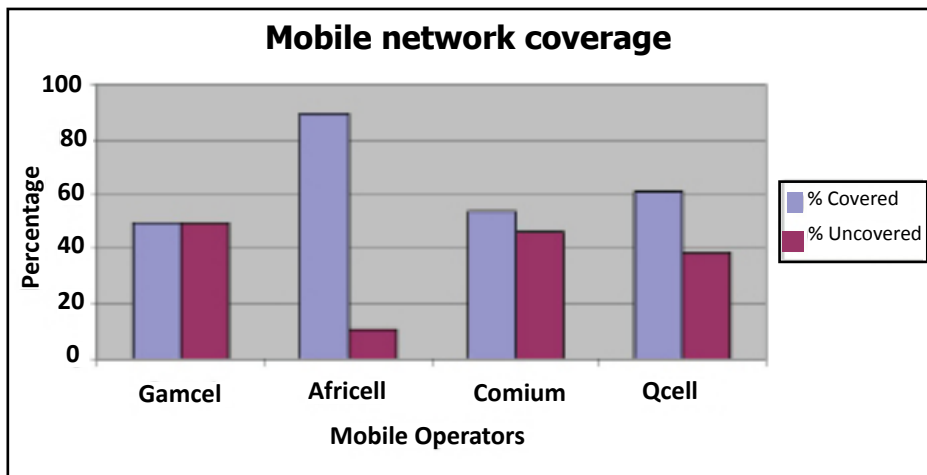
During the period under review, PURA engineers embarked on a countrywide trek to gauge the level of reliability and availability of ICT services countrywide. During the trek, mobile signal availability was checked in over 422 major towns and villages coupled with interviews with a view to know their expectations, service availability and their level of satisfaction.

**PURA engineers on a country wide trek**

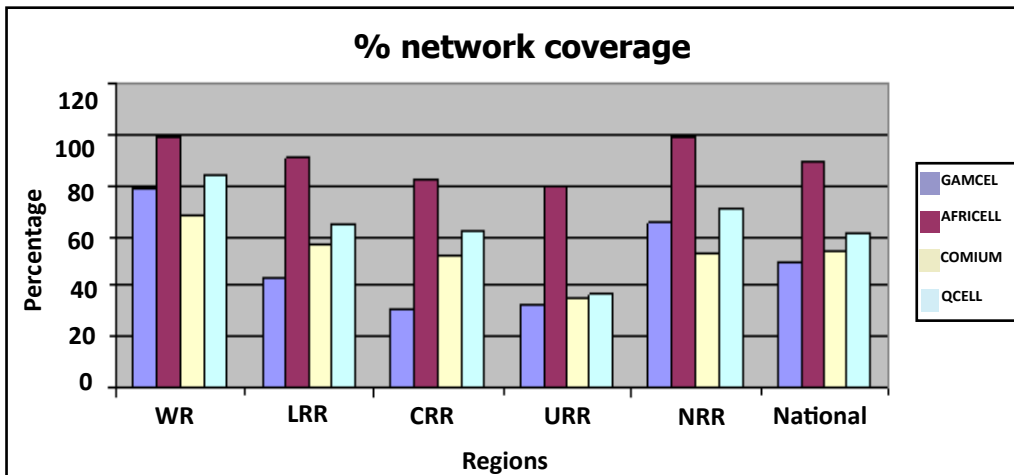


Of the 422 villages visited through out the country, only 6% of the population is not covered by any of the 4 operators' network signals. The network coverage by the operators during the period under review were Gamcel 50%, Comium 54%, QCell 61% and Africell 89%. This is depicted in Figure-18 below.

**Figure 18: Network Coverage By Operators**



**Figure 19: Network Coverage By Region**



The survey also revealed the following:

- i Of the total population of The Gambia, almost 93% of the population is covered with mobile networks in addition to availability of fixed and wireless local loop (WLL) services. Again more than 90% of cities/town and villages have mobile networks by one or all operators
- ii Compared to the survey done in April 2008, it was noticed that Africell has increased the number of villages covered from 78% to about 90% whilst others – Gamcel and Comium, in same period measured barely added any new villages to their network
- iii The areas most affected by unavailability of mobile signals are Kiang, Sandu and Kantora respectively. However, the other villages which were also found to be affected are remote and not clustered.
- iv Seamless communication from Banjul all the way to Basse was also noted in the South bank without losing network signals.
- v Seamless communication was again noted from Banjul through Janjangbury/ Barra all the way to Basse in the North bank without losing network signals.
- vi Most of the gaps/areas previously identified that did not have mobile network signals by any of the 4 operators are now covered by at least one network signals.
- vii Most operators have installed their own microwave transmission links to connect their Base Stations particularly in the rural areas. For this reason, even if Gamtel's fibre optic cable in the South Bank is faulty due to road works, lightning strike or accidental cuts by the public, customers in the provinces can receive mobile signals from at least three operators to be able to make and receive calls.
- viii All the new towers constructed by operators look very solid and capable of housing the antennas of others that want collocation.
- ix There was no interference of signals from any of the GSM operators in Senegal found on our networks with regards to all border villages visited. In the unlikely event that customers having a roaming facility do encounter such interference, they should either use the manual setting menu on their mobile phones to lock on to Gambian networks or call their service provider.
- x Gamcel had installed several cell sites in different parts of the country, some of which are in virgin areas (no mobile or strong signal). When these cell sites are commissioned in 2010, they will not only increase their network coverage but the national network coverage footprint.



**Customers go through great lengths in a bid to have good communication**

Results from the trek highlights that the GSM operators have increased their investment in infrastructure development by installing new cell sites in rural areas to ensure services are more available and reliable. This is despite the fact that 80% of their revenue comes from the urban areas compared to 20% in the rural area. In terms of expenditure (cost of maintaining generators, fuel, maintenance, transportation, wear and tear, road accessibility, low revenue, etc) 80% comes from the rural areas as opposed to 20% in the urban areas .

## SYSTEMS PERFORMANCE

The International Switching Centres achieved an average of 99.86% availability during the reporting period. The national switch at Serrekunda exchange achieved an average of 81.4% availability during the reported period. Although the switch is no longer supported by the vendor due to obsolescence, its reliability was reduced as a result of a major outage due to lightening that affected transmission and exchange cards. The outage also affected other remote exchanges parented to the main exchange contributed to the availability of the national switching network. The transmission backbone network from Banjul to Welingara in Dakar has been plagued by outages, due to frequent breakdowns in power systems, cuts in optic fiber cable due to wild fires, road construction, etc. Outage on this transmission link reduces the availability of Internet and international calling services as it is a major route for such traffic.



**Fibre cut at Bakadaji and Gamtel staff at work**

To improve availability, Gamtel needs new infrastructure to provide an alternative route to the fibre link between Basse in Gambia and Welingara in Senegal, which was implemented in 1996. Furthermore, such rollout will also increase international internet bandwidth and eliminate the serious problem of disruption to bilateral international traffic whenever the older fibre is cut.

## QUALITY OF SERVICE MONITORING NETWORK

PURA recognises that in order to be an effective regulator it ought to ensure that network operators comply with the quality of service indicators as stipulated in the quality of service framework developed by PURA and already circulated to all stakeholders and operators.

PURA has already drafted a quality of service guidelines after due consultations with operators. Furthermore, PURA has recently completed the procurement process and awarded a contract to Agilis International for the supply of a Quality of service monitoring network tool at a cost of seven million, six hundred and fifty thousand (D7.65 million) Dalasi. This equipment will allow PURA to be able to independently verify, evaluate and validate the quality of service rendered by each GSM operator for their consumers throughout the country in a bid to further increase the quality of service being provided by operators thereby further ensuring affordable, accessible and acceptable communication services. This tool would be able to provide measurements for GAMCEL, COMIUM, AFRICELL networks as well as QCELL's 3G networks.

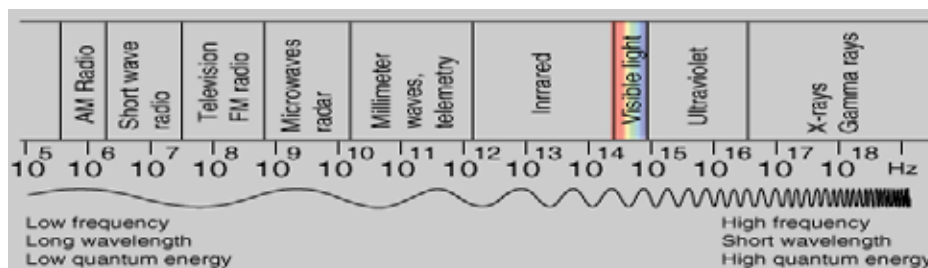
### **The key aims of the GSM QOS monitoring network are:**

- i To protect the interest of consumers of telecommunication services by ensuring that they become aware of the quality of service level for which they have the right to expect.
- ii To allow service providers to manage and improve the quality of the service they offer
- iii To support commercial contracts such as Service Level Agreement formulation and verification
- iv To facilitate the introduction of new and modern services and the expansion of existing services into modern and innovative quality service delivery at reasonable and affordable costs

- v To open the network to other service providers to earn more revenues and be more competitive in the telecommunication market
- vi To have unprecedented visual access (from cell site level all the way down to call messages) to GSM network data promoting efficient and effective network operation
- vii To have the ability to identify, analyze and accurately present network problems and be able to adopt a consumer-oriented approach that focuses on delivery of quality services at reasonable and affordable costs.

## SPECTRUM MANAGEMENT

### Introduction to Frequency Management, Allocation and Coordination



## THE ELECTROMAGNETIC SPECTRUM

The electromagnetic spectrum is an aspect of the physical world which, like land, water, and air, is subject to usage limitations. The electromagnetic spectrum is regulated by governments in most countries. The regulation of the electromagnetic spectrum is through the process of spectrum management and monitoring. This includes but not limited to spectrum allocation (frequency allocation) and assignment.

### 1. NATIONAL SPECTRUM DATABASE

In January 2009, we requested all the operators to furnish us with timely and accurate information and data. This is in line with the PURA Act 2001, Section 13 (1) (h) which mandates the Authority to – “collect and compile data on regulated public services and their provision necessary for the performance of the Authority’s functions”. We are happy to report that a database has been constructed and put in place. Below is a sample dataset of an FM radio station.

Assigned Date	Freq	Station Name	Owners	Transmitter Sites			POL. H/V/M	Transmit Power (W)	Transmit Power (dBW)	Sound System	Antenna Directivity D / ND / O	Antenna Hieght (m)
				Physical Location	Longitude	Latitude						
01/02/10	85.5	PURA FM	PURA	94 Kairaba Avenue	13°26' 00"	13°40' 00"	H	1,000	30	Stereo	ND	60

### 2. GSM BORDER INTERFERENCE

In January 2009, an interference complaint was received from Africell, on some of their Base Stations (BTS) using the Extended GSM (EGSM) frequency (880.20 MHz to 882.40 MHz). The interference was so severe that it led to poor quality of service and very high call drops on the Africell network in the affected areas. PURA and Africell together launched an investigation into the interference and the findings indicated that the interference was coming from a similar EGSM band used by an operator in Senegal.



**GSM & Microwave Antennas**



**CDMA & GSM Antennas**

In the spirit of coordination and the MOU signed between PURA and ARTP, the Regulator in Senegal, PURA and ARTP conducted a proper investigation through testing and monitoring and exchange of border frequencies. It was concluded that some spot frequencies / channels were the source of the interference. PURA in conjunction with MOICI reassigned Africell with twelve new channels which resolved the interference problem and improved the quality of service to customers in the affected areas.

### **3. 5TH AFRICAN SPECTRUM MANAGEMENT WORKSHOP**

The 5th African Spectrum Management Workshop was held at the Sandton Convention Centre, Johannesburg South Africa from the 15th to 18th April 2009. The Workshop was organised by Kemilinks International in collaboration with the Independent Communications Authority of South Africa (ICASA) with the support from the South African Department of Communications (DOC) and South African Communications Forum (SACF). It was attended by about 23 participants from The Gambia, Lesotho, Malawi, Mozambique, Nigeria, Rwanda, South Africa, Tanzania and Uganda.



**Pura's Mr Renner Inspecting an ICASA Spectrum Monitoring Van**



**Participants at the Workshop**

The ITU deadline of 16th June 2015 for Analogue to Digital Television Switchover by member countries to have a clear policy on transition from analogue to digital broadcasting was elaborated. Furthermore, there needs to be due considerations to the development of the required infrastructure, discouragement of dumping of obsolete analogue equipment, transitional measures for the dual illumination period, mechanisms for ensuring affordable access to set-top boxes such as providing incentives, consumer awareness, incentives to encourage local content and a clear implementation plan and associated timetable.



#### 4. STATUS OF BROADCASTING FREQUENCY (FM SOUND) IN THE GAMBIA

Presently in The Gambia, there are 20 FM sound (87.5 to 108 MHz) frequencies countrywide and 2 AM sound frequencies. Of these 20 FM frequencies, 7 are used by community radio stations, 5 are used by the public national radio and the rest are used by private commercial radio stations.

As can be seen below, a total of 24 frequencies were assigned by ITU to The Gambia since 1984 in Geneva, Switzerland, hence the name GE84 plan. Only 6 frequencies were assigned for the Greater Banjul Area as per the above list and all are in use. Some frequencies from other Regions were assigned to GBA radio stations (93.6 MHz – Kuntaur and 105.5 MHz – Mansakonko) and other frequencies assigned were not in the GE84 plan for The Gambia. These are 88.0, 96.0, 97.5, 98.0, 101.1, 101.7, 104.7, 100.5, 107.6 MHz. Due to the lack of coordination with neighbours prior to utilisation of these frequencies, some radio stations experienced some level of interference with certain radio stations in Senegal, Guinea Bissau and Mauritania, depending on the time, location, transmitter power, antenna height and the antennas directivity. A countrywide tour embarked upon by PURA revealed some level of interference with some stations in nearby countries. All the interferences were not caused by using none GE84 plan assignments, but due to the fact that our FM radio broadcaster's use lower power transmitters compared to neighbouring countries.

In a bid to accommodate the ever increasing commercial FM radio station applications, PURA has filed in a list of 38 additional FM radio frequencies to the ITU and coordinating with our sister regulators in the sub region in line with GE84 ITU-R recommendations.

##### Existing Fm Radio Stations in the Gambia as at December 2009

Radio Station	Location	Freq	Status
West Coast FM Ch1	Manjie Kunda	95.3	On-Air
W/Coast FM Ch2	Manjie Kunda	92.1	On-Air
City Limit FM	Kairaba Avenue	93.6	On-Air
N / Bank Community FM	Kerewan	100.5	On-Air
Yiriwa FM (now call Hill Top FM)	Brikama (now at Latrikunda Mampotokoto)	104.7	On-Air
KWT FM Radio	38 Kairaba Avenue (no at Fajara)	107.6	On-Air
Brikama Community FM	Birkama	98.0	On-Air
Radio One FM	Kairaba Avenue	102.1	Off-Air
GRTS Radio FM	Mile 7	96.0	On-Air
GRTS Radio AM	Bonto	648 KHz	On-Air
GRTS Radio AM	Basse	747 KHz	On-Air
GRTS Radio FM	Abuko	98.60	On-Air
GRTS Radio FM	Mile 7	102.60	On-Air
RFI Radio FM	Abuko	89.0	On-Air
Farafenni Community FM	Farafenni	99.9	On-Air
Paradise FM	Basse	105.8	On-Air
Mansakonko Community FM	Mansakonko	88.8	On-Air
Janneh-Koto Community FM	Gunjur	101.1	On-Air
Unique FM	Basse	101.7	On-Air
Unique FM	Bakau Newtown	101.7	On-Air
Paradise FM	Manjai	105.5	On-Air
Sinchu Alhagie Community FM (Tarranga)	Sinchu Alagie	97.5	On-Air
Birkama-ba Community FM	Birkama-ba	96.8	On-Air

On the other hand for television broadcasting, ITU-R has another plan called GE89 band plan which is the plan for analogue television assignments and was done in Geneva, 1989. GRTS, the only TV station in The Gambia is operating five transmitters countrywide. Each transmitter is assigned a frequency such that there is no interference between the transmitters. Notwithstanding, in the event of new assignments for television frequencies, coordination should be done with Senegal to avoid harmful interference. In The Gambia, we only use the VHF band III (174 MHz - 230 MHz) and not the UHF band (470 MHz - 960 MHz).

## INVESTIGATION OF AN INTERFERENCE REPORTED IN FARAFENNI

On the 3rd October 2009 PURA engineers embarked on a trek to verify a reported interference which was suspected to be caused by Paradise FM, a commercial radio station broadcasting on a frequency of 105.5 MHz in Farafenni, the North Bank Region.



**Paradise FM Farafenni VHF antenna**



**Control room and Studio**

This visit followed a complaint that their signals were tuned on different parts of the whole FM sound broadcasting band (87.5 MHz to 108 MHz). These signals were causing interference on some Senegalese radio stations received in the Region. These harmful interferences were intermittently experienced on 105.7, 106.0, 106.45, 106.65, 104.5, 103.9, 103.4, 102.7, 100.5, 100.3, 100.2, 99.4, 98.35, 97.5, 96.9, 96.6, 94.3, 92.6, 92.1, 91.2, 90.2 and 88.9. These findings were communicated to the proprietor of Paradise FM, who then dispatched engineers to diagnose and solve the interference problem. PURA's technical team revisited Farafenni and the surrounding areas and were able to confirm that the interference problem was resolved.

## TYPE APPROVAL REGIME

PURA secured technical assistance from ITU on a cost sharing arrangement to put in place a type approval regime. This will be developed in consultation with all stakeholders. After concluding consultations with the various stakeholders, the type approval regime will be completed and ready for implementation. Type approval is a process of quality assurance, conformity assessment and compliance to international standards. The ultimate objective of type approval is to ensure that all sub-standard materials will be banned from entering The Gambia.

### Electricity Services Monitoring Nationwide Treks



**2MWA Power Station in Basse**



**Outgoing Feeders to Fatoto**

As part of its mandate, PURA regularly conducts tours of all electrical facilities in the country to ensure compliance and also to keep itself fully abreast of project implementation.

PURA Electricity and Water Engineers went on treks twice in 2009. The first Trek in January was with the Minister of Energy in which the team paid a visit to all the power plants and electricity vending stations in the provinces all the way to Fatoto. This gave us the opportunity to assess the level of electrification and level of service delivery in the country.

**The main findings of the Treks were:**

- The need for regular Safety Training Programmes for staff
- The need to close gaps in the transmission system ( National Grid)
- High costs of meters for the rural population
- The need to use alternative sources of Energy, i.e. Solar Power Stations
- Limited vending stations to purchase pre-payment electricity units
- Water Quality issues in the Provinces.

A second Trek was conducted in October. It was discovered that the demand for Electricity in the provinces had increased steadily and there was urgent need to upgrade the infrastructure and in particular interconnect the rural power stations to realize a national grid.

PURA participated in another nationwide trek in November 2009 sponsored by UNDP together with Ministry of Energy, NAWEC and NEA in which a team of resource persons from the above named institutions toured all regions of The Gambia. The campaign was a national Sensitization on energy efficiency and conservation through the use of CFL lamps. Throughout, the team advised consumers to replace incandescent lamps with energy saving lamps and reduce wastage of energy thereby helping to extend availability of electricity to those consumers who are yet to be connected to the distribution network.

The team distributed Posters, T-shirts, and leaflets on energy saving tips through the use of CFL lamps. The benefits of using CFLs as well as the power rating energy consumption of typical home appliances were explained to each audience. In a bid to save the environment, save money and save energy, the environmental impacts were also explained to the public. During the campaign the team held meetings with Alkalos, District Chiefs, Government officials, villagers and a cross section of the society with the help of the Governors who were very instrumental in the course of the campaign.



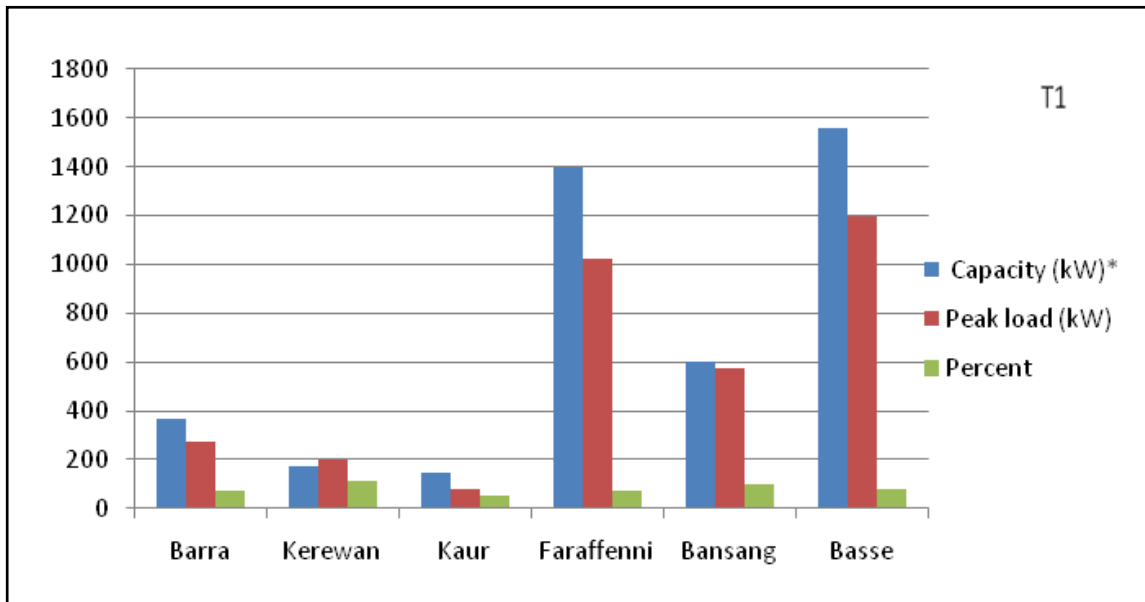
Incandescent	CFL	Savings
100	18W	82W
60W	11W	49W
40W	8W	32W
25W	5W	20W

**CFL Ratings to replace Incandescent Lamps**



The Figure below shows the increase in demand during the course of one year. A key observation from these treks is that Universal Access to electricity is something that both PURA, the Department of state for Energy and NAWEC will have to work towards.

**Figure 20: Peak Load vs Installed Capacity of Provincial Power Stations ( October 2009)**



## RESEARCH ON EFFICIENT STREET LIGHTING

The energy consumption of existing streetlights in the Greater Banjul Area is a matter of concern to both the authority and the area councils. Thus in a bid to move to more efficient street lighting PURA organised a workshop for Area councils and key stakeholders early 2009. PURA's Electricity Engineer, Moses G. Campbell gave a presentation on efficient streetlights and the huge savings involved. Existing street lights have a power rating of 250Watts but the lamps consume close to 275watts due to the ballast units.

PURA carried out a research on Efficient streetlights in early December 2009 in which three new samples of efficient streetlights were mounted on the existing lampposts for a period of one week, during which the kilo-watt-hour energy consumption of each lamp was metered with kWh meter for the period of the exercise. The Electrical Contractors BB Electrical was involved in the exercise by helping to provide the Crane truck and Electricians to connect the Lamps and kWh meters. The Lamps involved in the exercise were two LED streetlights from LED Solutions, with ratings 90W and 60W together with an Induction Lamp from USA rated 120 watts. The purpose of the research was to measure energy consumption and the light output from the lamps in lumens per square meter otherwise known as Lux which is a measure of the luminous intensity measured about one meter above the road surface.





**BB Electricians Changing The Lamps**



**KWH meters wired to each lamp**

## RESULT

**Table 9: Result Of Lamp Tests Mounting Height Of All Is 10 Metres**

	250watts SHP	60watts IED	90 watts LED	120 watts Ind.	Remarks
Consumption (kWh)	23	7	9	11	1 week Test
Luminance (lux)	20	10	22	45	1 week Test
Efficiency (lm/W)	90	120	120	90	1 week Test
Operating Temp (°C)	over 300	40	40	40	1 week Test
Lifespan	12,000hrs 3yrs	75,000hrs 17yrs	75,000hrs 17yrs	100,000hrs 21yrs	

The results clearly show that the existing HPS lamps failed the test in that they consumed the most energy at a very high temperature and have a very short lifespan of 3yrs. They also produce ultra violet radiation and infra red/heat thereby attracting insects. Their LED counterparts do not emit radiation and have a long lifespan of 20 years at 12 hrs / day usage and are eco-friendly. HPS Lamps produce 1100gms CO<sub>2</sub> for every 1 kilowatt hour of energy used.

## GCCI TRADE FAIR - DEC. 2009

One of the final activities of the year included participation at the trade fair which was held at the Independence Stadium at Bakau. PURA took up a space of 2 stalls and staged an exhibition of New and Efficient streetlights in addition to a demonstration board of Incandescent and CFL lamps for consumers to see the difference in consumption. An Excel model of the Electricity meter was also available for people to use to estimate their consumption in kWh.



**Demonstration Equipment**



**Explaining to the Public**



**PURA Stalls 2009 Trade Fair**

Participation in the trade fair, a first for PURA was an opportunity to meet the general public face to face and also to raise awareness about PURA.

## **BATOKUNKU WIND ENERGY PROJECT – PHASE II**

As reported in our 2008 Annual Report, the year began with the completion of the wind energy project in Batokunku. The turbine was successfully connected to the grid in late January. Thus the Village became the second licensed IPP, selling power to NAWEC. However the project was unique in not only providing electricity to the village for the first time but also buying electricity from the grid as well. The Public Utilities Regulatory Authority received an application for a licence to distribute electricity at Batakunku village, in Kombo South, in December 2007. PURA immediately dispatched its engineers on a fact finding mission to the village to gather all the necessary information to process the application.



**Ownership at Community level, resident of Batokunku explaining the Turbine to a group of visitors**



**The completed turbine**

The project comprises a 150 kVA generator using wind energy. The project continues to attract a lot of interest from the public and other organisations. It is hoped that it will showcase wind energy as a viable alternative and will help in our pursuit of energy diversity strongly focused on renewable energy.

## **TARIFF STUDY ON ELECTRICITY AND WATER SERVICES**

As mentioned in the Economic Regulation section, this is by far one of the longest and most expensive projects ever undertaken by PURA. The Government of The Gambia received credit from the International Development Association toward the cost of the Gateway Project. The Gambia Investment Promotion and Free Zones Agency (GIPFZA), the implementing agency of the Gateway Project had applied part of the proceeds of this credit to the payments under the contract for consultancy services for Electricity and Water Tariffs Study.

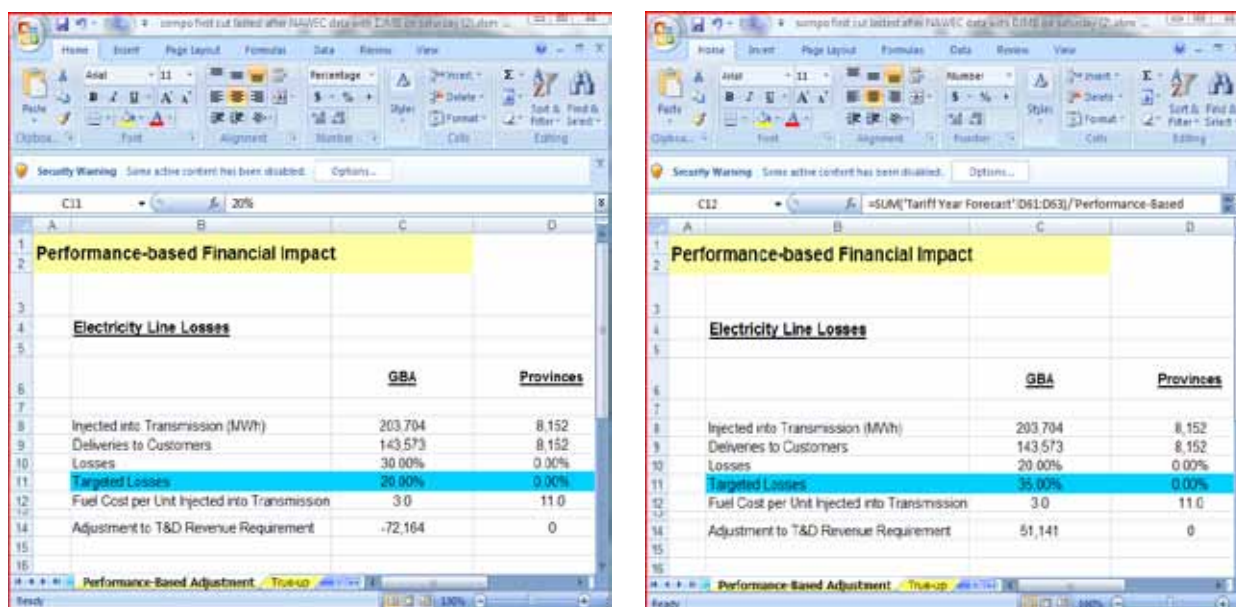
The objective of the study was to carry out a tariff study and assist PURA in the implementation of tariff guidelines and models emanating from the study for unbundled generation, transmission, and distribution tariffs in line with the spirit of the Electricity Act 2005, to ensure competition and sustainable supply of electricity. The study also did a similar exercise for Water and Sewage services in that a single utility, NAWEC has a monopoly over the provision of both services in the Gambia.

The Study lasted a period of six months starting from January 2009 to July 2009. During this period there were extensive consultations with all the key stakeholders in the sector including the Private Sector, and on June 2nd 2009 a national stakeholders' workshop was conducted to validate the report that emanated from the study. Consideration has been given to all the comments received during the consultations and the workshop.

Accompanying the report is an Excel-based tariff model concerned primarily with the data analytics associated with computing annual revenue requirements. The key components of the model are highlighted below;

- Use of an incentive mechanism focused on electricity losses along the transmission and distribution net works;
- Annual application of a 'true-up' mechanism to adjust systematically for forecasting errors embodied within the computations of revenue requirements in previous years; and
- Computation of a complete set of retail tariffs – for electricity, water and sewerage – within a defined tariff structure.

**Figure 21: Showing the in-built incentives in the EXCEL based model**



Thus, the model is in essence meant to provide PURA and NAWEC a fully automated tariff tool for computing tariffs based on defined data inputs. The Study comes with twenty one (21) point recommendations on NAWEC and the electricity market, key amongst which were:

- Government and NAWEC to settle arrears to each other through a write down of Government equity.
- Establish a compensation scheme for customers who finance line extensions.
- The cost of meters should be capitalized and recovered over time, rather than asking customers to pay up front.
- Institute an incentive mechanism to encourage NAWEC to reduce losses rather than pass it on to consumers
- Outline an application and review process to periodically adjust tariffs to sustain NAWEC and protect consumers and reflect changes in input costs.

Specifically on Electricity and Water Tariffs, the study categorically points out that NAWEC is a bundled corporate entity and there is lack of regulatory accounting of the different business units. Thus there is embedded across the different services and amongst different consumer classes cross subsidies mostly borne by electricity customers.

## IMPLEMENTATION OF RESULTS

The results show that electricity consumers especially the commercial and industrial/categories are being overcharged and are the main source of cross subsidies. Electricity prices were to be reduced by 13.6% overall and about 4% for domestic consumers 2009 as proposed above. The Board of PURA met in October and made a determination endorsing the recommendations of the Study. The Board approved new tariffs for Electricity as follows:

TABLE 10: SHOWING THE NEW ELECTRICITY TARIFF AS OF NOVEMBER 2009 (\*\*-NOV.2009.)

Customer Class	Current ** Tariff/D	Model Tariff/D	Proposed/D
Domestic	7.00	7.09	6.50
Commercial	9.43	7.09	8.00
Hotel/ club / Industries	10.43	7.09	8.50
Agriculture	9.07	7.09	8.00
Area Counsel	9.07	7.09	8.00
Central Government	9.07	7.09	8.00

Water tariff and sewage tariffs were also too low and will have to be adjusted. The only over charge in water was for the industrial category currently paying D24.01 against a model generated cost price of D12.52. However in line with best regulatory practice, all tariff increases should follow an exhaustive consultation process. Notwithstanding that, it was important to note that no regulator should also allow for tariff increases without any investment plan from the utility.

## STANDARDS & GUIDELINES

A National Electrotechnical Committee (NEC) has been established with key stakeholders and it has met several times during the course of the year. The work of the NEC is to participate in the work of the International Electro-technical Committee (IEC) and also towards adaptation of IEC standards.

PURA aims to introduce standards to address the issue of sub-standard electrical material being sold in The Gambia. The work of the NEC was duly recognised by government and PURA has been invited to participate actively as a core stakeholder in the consultation towards establishing a National Standards Bureau by the Ministry of Trade Industry and Employment.

The NEC standards received from the IEC have been circulated to stakeholders for review. It is hoped that PURA will adopt some of the standards and develop regulations to enforce them as part of its Type Approval Mandate.

Another area where PURA has engaged NAWEC on is network losses. Several meeting were held towards the end of the year towards developing a framework to incorporate an incentive rate making system to reduce losses.



## **WATER & SEWAGE**

Improved water, good sanitation and better health are strongly correlated as outlined in the UN Millennium Goals, goal number 7 (Ensure environmental sustainability):

- Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

To ensure that the Gambia meet the set goals and maintain its sustenance, benchmarking, standard monitoring, enforcement and compliance are vital roles to which regulatory interventions are imperative and in no small measures desirable.

### **MOU BETWEEN PURA AND THE DEPARTMENT OF WATER RESOURCES**

A memorandum of understanding (MOU) was signed with the Department of Water Resources in the field of cooperation for water quality testing on May 13th 2009.

The key areas of cooperation contained in the MOU amongst others are as follows:

- i to have PURA provide partial funding for testing of taps, wells, tanks, and other potable water points in the country;
- ii that DWR Abuko Laboratory will conduct quarterly tests nationally as determined and agreed to by both parties;
- iii to have DWR provide test results of the laboratory and their interpretations to PURA;
- iv to exchange technical assistance through the organisation of technical missions and short-and-medium duration training sessions;
- v to jointly work on building the capacities of both parties in the area of potable water quality management;

**Figure 22: Pura Director General and the Water Resources Director at the MOU signing**



### **WATER QUALITY TESTS**

Several tests on various water points nationwide were carried out on 82 sample points. The general objectives of the tests were:

- i To ensure that safe drinking water is supplied to the population.
- ii To ensure that the associated water facilities, i.e. tanks, boreholes, treatment plants are well maintained and protected from contaminants/pollutants. In performing the tests it is envisaged to:
- iii Set early warning and reporting of poor drinking water standard and hence reduce the risk of epidemics associated with poor water quality.

- iv Alert the water service provider on their water quality and also make comparative comparisons with their water quality test results.
- v Ensure the continuous availability of good water quality from source to end users.

**The test parameters engaged are:**

- 1) Bacteriological (Thermo-tolerant Fecal and total coliform)
- 2) Residual Chlorine.
- 3) Physico-chemical parameters (pH, Odour, Temperature, Electrical conductivity, Total dissolved solids and salinity)
- 4) Chemical parameters (Nitrate, Sulphate, Phosphate, Fluoride, Copper and Total iron)

**Analysis of the test result indicated the following observations:**

- i In general the test results did indicate the water supply meeting the minimum required standard as per WHO and African Forum for Utility Regulation guidelines on water standard.
- ii Disinfection (chlorination) plants in the rural centres are not functional and hence tend to disable the system in fighting possible coliform or other contaminants.
- iii Water is observed brown at the slow sand filters in Bansang due to its above national average total iron content. Tests did indicate a total iron content of 0.1mg/l and 0.06mg/l at and after sand filters respectively. This is within the allowed value of 0.3mg/l. However it envisaged that with the connection of a new borehole from a different location improvements will be achieved.

Conductivity as high as 1047µS/cm was recorded at Kerewan, with acceptable level set at 1300 µS/cm. This indicates the intrusion of salt water into the aquifer and is evident in the rust, corrosion and scaling on the water tank and its associated fixtures.

**TOUR OF NAWEC WATER FACILITIES**

An annual tour of the NAWEC rural facilities was conducted and a report prepared and shared with the relevant authorities. The observations are summarized:

- Work on the provision of a new borehole (EDF9, project) at Saba, to replace the salt intruded one at Kerewan is well in progress. Connections are to be made linking it to the reservoir.
- New boreholes were also drilled to replace faulty ones at Barra and Basse.
- Bansang also has a new borehole at Mabally to supplement the existing one which has high ferrous concentration.
- The sinking of an additional bore in Janjangbureh was deferred due to the logistical difficulties in getting the drilling equipment to the Island.
- The need to improve on the disinfection system (chlorination) in the provincial services was noted.
- Concerns on the leaking water tanks were raised and NAWEC did indicate that their repairs were part of the ongoing EDF 9 project on the water services.

During the tour, briefings were held with the staff on site and the role of PURA was explained to them. Other rural water community water sites were also visited.



**New borehole at Basse**



**PURA Engineer with NAWEC staff at Mabally borehole**

**FIGURE 17** Fatoto community replacing faulty water distribution pipe through community work



**BRIKAMA WATER PROJECT**

The Brikama water project was completed and duly inaugurated in July 2009.

The project comprises of well fields of 19 boreholes and 4 elevated tanks with water mains as summarised below:

- 17 boreholes under Brikama treatment plant.
- 2 boreholes under Mandinary stand alone system.
- One treatment plant at Brikama (capacity 350l/sec).
- 4 x 500m<sup>3</sup> elevated tanks at Brikama, Farato, Old Yundum and Mandinary.
- 25.3Km UPVC raw water mains connecting borehole to treatment plant.
- 63.9Km transmission mains and spurs connecting treated water to the tanks and distributions.

**BANJUL WATER AND SEWAGE SERVICE**

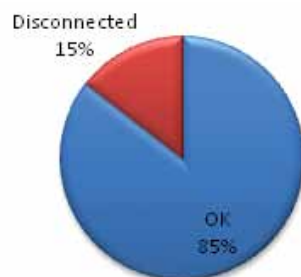
Household survey on the Banjul water and sewage service was carried out to ascertain its’ status. The findings were duly complied and forwarded to the service provider and other stakeholders.

Some of the major findings are thus highlighted

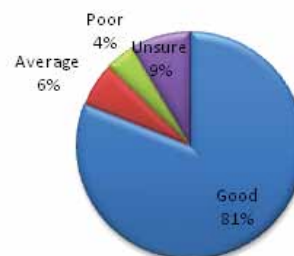
**BANJUL WATER SUPPLY**

The water supply status was observed and it was noticed that 15% of the service were disconnected. Water and hygiene have a strong correlation especially in ensuring proper sanitation i.e. flushing of toilet facilities within the City. On the level of satisfaction with the water service, 81% responded that the service was good whilst 6% found it Average; 4% as Poor and 9% as unsure. In general it can be said that there is considerable satisfaction with the water supply service in Banjul.

**Water Supply Status**



**Water Service Satisfaction**



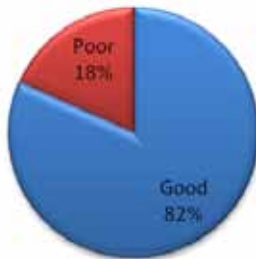
### Sewage System Flow



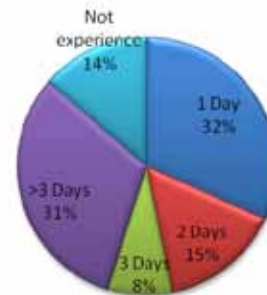
### Sewage Flushing System



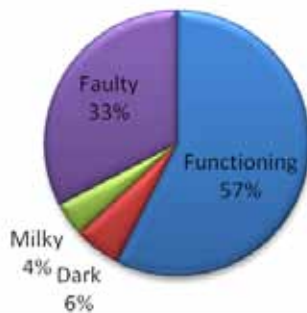
### Meter Accessibility



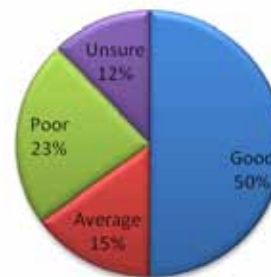
### Fault Response Time



### Meter Status



### Sewage Service Satisfaction



#### As per finding from the survey the following were recommended:

1. Engage in more sensitization programmes with the populace along with NEA, the Department of Public health and the City council. The correlation between environment, water and sanitation makes it imperative to engage with these institutions.
2. Envisage the possible inclusion of a non return valve or flap from house hold discharge so as to avoid system backflow.
3. Improvements on the fault response time to sewage blockage should be made. Logs to be kept for the various faults reported and times taken to respond to them. This would be included in the guide lines for minimum quality of service standards for water and sanitation.
4. Sensitisation program on good sanitary practice is to be launched with relevant partners, stakeholders and populace.
5. Faulty water meters are numerous within the system and as such contribute to the high levels of non-revenue water. Thus it is prudent to work on the replacement of these meters.
6. Some of the meters do also require relocation for easy access to the meter readers and hence avoid the tendency of bill estimation.
7. Attempts should be made to adhere to time lines for the quality of service being developed where it is envisaged to have the following fault response time for sewage service thus:
  - \* 20-36Hrs of reporting blockage <15%
  - \* 36-48Hrs of reporting blockage <8%
  - \* >48Hrs of reporting blockage <3%

Sustainable water supply and improved sanitation services, good hygiene practices, are imperative for a healthy populace and improve our drive to reaching the MDG 7.

## PART VII: OUTLOOK FOR 2010 AND BEYOND

### **NATIONAL NUMBERING PLAN**

As the regulator of the telecommunication industry, the Authority controls and manages the National Numbering Plan. The Authority will ensure that the number allocation process is fair and transparent so as to provide a level playing field regarding the availability of numbers for all operators. PURA is responsible for managing the public numbering scheme and for issuing the National Numbering Plan. In this vein, PURA will develop an overall national numbering strategy in the national interest of The Gambia that is futuristic.

### **ON ICT APPLICATIONS & CYBER SECURITY**

There are efforts underway for PURA to have the necessary capacity in order to have, among other things, qualified technical team for the regulation of ICT applications, and Cyber Security

### **UNIVERSAL ACCESS AND SERVICE**

The liberalization of the telecommunications industry in The Gambia led to the proliferation of service providers with differentiated service offerings thereby presenting consumers with different service options. Service providers however may focus on segments of the market which are considered to be more lucrative and ensure the maximization of their profits and reasonable returns on investment. Thus universality policies present an opportunity for such un-economic areas to be served.

For The Gambia to achieve higher and sustained growth performance by achieving its objective of transforming itself into a service-based economy, the developments relating to the basic infrastructure which is consistent with the national ICT Infrastructure is necessary. A better communications infrastructure, supported by cheaper access to bandwidth capable of delivering advanced ICT services throughout the country would reduce the cost of doing business and significantly contribute to efficiency in public sector service delivery.

PURA in consultation with the relevant stakeholders is in the process of determining the most effective and appropriate approach for ensuring the implementation of universal access or service with due respect for the principles of objectivity, transparency, non-discrimination, sustainable and proportionality.

### **NATIONAL ALLOCATION PLAN AND CHART**

PURA has a jurisdiction over the assignment and usage of the frequency bands of electromagnetic spectrum in The Gambia and shall assign spectrum and regulate the usage of frequency bands of electromagnetic spectrum in The Gambia in accordance with the IC Act 2009.

PURA in consultation with MOICI is working on setting up a National Frequency Advisory Committee with the relevant stakeholders, in preparation for the National Spectrum Allocation Plan and Chart for The Gambia. PURA will develop the spectrum regulations and guidelines that will facilitate implementation of the national spectrum plan.

### **TOWER AND MAST GUIDELINES**

After consultation with the various stakeholders, the tower and mast guidelines will be completed and ready for implementation

### **ELECTRICITY SECTOR**

After what has been a very successful year for the electricity sector, 2010 looks like an even more interesting year ahead. The Tariff Study just completed in 2009, highlighted several issues to improve the electricity sub-sector in The Gambia. It would also be a challenge to see through the implementation of some of the recommendations such as regulatory accounts at NAWEC between the different business Units.

# **APPENDIX: 2009 AUDITED FINANCIAL STATEMENTS**



**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**

**FINANCIAL STATEMENTS AND REPORTS**

**FOR THE YEAR ENDED 31ST DECEMBER 2009**

AUGUSTUS PROM  
CHARTERED CERTIFIED ACCOUNTANTS  
REGISTERED AUDITORS

2 KAIRABA AVENUE  
SEREKUNDA, K.M.C  
THE GAMBIA



**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)  
FOR THE YEAR ENDED 31ST DECEMBER 2009**

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III. WORK PERFORMED	50
IV. BOARD OF COMMISSIONERS' REPORT	51
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## **PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**

### **I. BACKGROUND – GENERAL INFORMATION**

The Public Utilities Regulatory Authority was established under section 3 of The Gambia Public Utilities Regulatory Authority Act 2001.

The objectives for which the Authority was established among others are as follows:

- 1 To provide guidelines on rates and fees for the provision of regulated public services;
- 2 To examine rates and fees chargeable for the provision of regulated public services;
- 3 To protect the interest of consumers and of public utilities;
- 4 To monitor and enforce standards of performance by public utilities.
- 5 To initiate and conduct investigations into standards of services by public utilities;
- 6 To promote fair competition among public utilities;
- 7 To conduct studies relating to economies and efficiency in the provision of regulated public services to consumers;
- 8 To collect and compile data on regulated public services and their provision necessary for the performance of the Authority's functions;
- 9 To provide advice in respect of regulated public services and their provision;
- 10 To maintain a register (which may be in electronic form) of public utilities and the services they provide;
- 11 To publish in such manner as it considers appropriate, information relating to the Authority's functions and activities;
- 12 To recommend and administer, in accordance with this Act, a licensing system in respect of public utilities;
- 13 To provide advice or assistance to a public utility to assist or enable the public utility to comply with a requirement of this Act or of any license.
- 14 To prepare or cause to be prepared any relevant documentation (including drafts of any required legislation) necessary to give the Authority the power to regulate public utilities in accordance with this Act; and
- 15 Perform such other functions as may be imposed on it by any other legislation.





## **PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**

### **BOARD OF COMMISSIONERS**

Mr. Abdoulie M. Touray	- Chairman & Non Executive Commissioner
Mr. Anthony Carvalho	- Member (Non Executive Commissioner)
Mrs. Amie Joof Conteh	- Member (Non Executive Commissioner)
Mr. Alhagi B. Gaye	- Director General & Executive Commissioner
Mrs. Ida M. E. Jallow	- Executive Director
Permanent Secretary (DOSFEA)	- Non Executive Commissioner Ex-Officio
Mr. Maleh Saine	- Executive Director
Mr. Malamin Darboe	- Secretary

### **BANKERS**

Trust Bank Limited ECOWAS Avenue Banjul, The Gambia	ECO Bank (G) Limited Kairaba Avenue KMC, The Gambia
Guaranty Trust Bank (G) Limited 56 Kairaba Avenue KMC, The Gambia	Access Bank (G) Limited 47 Kairaba Avenue KMC, The Gambia
Reliance Financial Services Ltd. Kairaba Avenue KMC, The Gambia	

### **REGISTERED OFFICE**

1 Paradise Beach Place  
Bertil Harding Highway  
Kololi, The Gambia

### **AUDITORS**

Augustus Prom  
Chartered Certified Accountants  
Registered Auditors  
2 Kairaba Avenue  
Serrekunda  
KMC, The Gambia



## **II. AUDIT OBJECTIVES**

### **FINANCIAL AUDIT**

The objective of the financial audit is to express a professional opinion on the financial statements of the Public Utilities Regulatory Authority as to whether they give a true and fair view of the state of affairs of the Authority and of its surplus resulting from the Income and Expenditure account of the authority for the year ended 31st December 2009.

The audit will be carried out in accordance with International Standards on Auditing (ISA) and includes such tests and controls deemed necessary under the circumstances.

The professional opinion will include specific references as to whether:

- (a) The subvention and other receipts for the year have been used in accordance with the Authority's objectives;
- (b) All necessary supporting documents, records and accounts have been kept in respect of all expenditures;
- (c) The financial statements audited have been prepared in accordance with consistently applied International Accounting Standards and it gives a true and fair view of the state of affairs of the Authority and of its Income and Expenditure for the year audited.

## **III WORK PERFORMED**

In order to collect the information necessary for this report, we interviewed various members of staff of Public Utilities Regulatory Authority relevant to the work being done.

We performed the review of the internal control procedures adopted by the Public Utilities Regulatory Authority.

We checked the Authority's financial position and performance based on the accounting documentation submitted by the Authority.

We evaluated the management and staff capacity of the Authority in relation to the management and execution of its functions as stated in section 16 (1-3) of the Gambia Public Utilities Regulatory Authority Act 2001.

We perused The Gambia Public Utilities Regulatory Authority Act, 2001 establishing the Authority.



**IV. PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)  
BOARD OF COMMISSIONERS' REPORT  
FOR THE YEAR ENDED 31ST DECEMBER 2009**

1. The Commissioners present their report and Audited Financial Statements for the year ended 31st December 2009.
2. **STATE OF AFFAIRS:**  
The Authority's reports for the year ended 31st December 2009 are as set out in the attached Financial Statements.
3. **PRINCIPAL ACTIVITIES:**  
The principal activities are to provide guidelines on rates and fees for the provision of regulated public services, examine rates and fees chargeable and to protect the interest of consumers and of public utilities. The objective for which PURA was established is given on page 3 of this report.
4. **MEMBERS OF THE BOARD OF COMMISSIONERS:**  
The members of the Board of Commissioners who remained in office during the year are listed on Page 4.
5. **BOARD OF COMMISSIONERS MEMBERS' RESPONSIBILITIES FOR THE FINANCIAL STATEMENTS:**  
It is the responsibility of the Board of Commissioners to prepare Financial Statements for each financial year, which gives a true and fair view of the state of affairs of the Authority and of its Income and Expenditure for that period. In preparing those financial statements the commissioners are required to
  - i Select suitable accounting policies and then apply them consistently;
  - ii Make judgements and estimates that are reasonable and prudent;
  - iii State whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements;
  - iv Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Authority will continue in business.

The Board of Commissioners are responsible for keeping proper accounting records, which disclose with reasonable accuracy at any time the financial statements comply with International Accounting Standards and The Gambia Public Utilities Regulatory Authority Act, 2001. They are also responsible for safeguarding the assets of the Authority and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.



**6. AUDITORS:**

The Authority's external auditors, Augustus Prom - Chartered Certified Accountants, have indicated their willingness to continue in office pursuant to section 155 (2) of the Companies (Gambia) Act 1955.

**BY ORDER OF THE BOARD OF COMMISSIONERS**

-----  
**DIRECTOR GENERAL**

**DATE:** 31/03/10

**REGISTERED OFFICE**

1 Paradise Beach Place  
Bertil Harding Highway  
Kololi, The Gambia.

-----  
**SECRETARY TO THE BOARD**

**DATE:** 31/03/10



**AUGUSTUS PROM**  
**CHARTERED CERTIFIED ACCOUNTANTS**

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2 Kairaba Avenue - P O Box 587, Banjul, The Gambia - Tel: 4378146 4392376 4378147 - Fax (220) 4378148  
E-mail: [augustus.prom@gamtel.gm](mailto:augustus.prom@gamtel.gm) [www.augustus-prom.gm](http://www.augustus-prom.gm)

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## INDEPENDENT AUDITORS' REPORT

### TO THE BOARD OF THE PUBLIC UTILITIES REGULATORY AUTHORITY (PURA) ON THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31ST DECEMBER 2009

We have audited the financial statements and the notes thereon set on pages 10 to 18, which have been prepared under the historical cost convention.

#### **RESPECTIVE RESPONSIBILITIES OF THE BOARD AND AUDITORS**

The Board of Commissioners prepares the financial statements for each accounting period which gives a true and fair view of the state of affairs of the Authority at the end of the accounting period. In preparing the financial statements, suitable accounting policies are selected and applied consistently, and reasonable and prudent judgements and estimates are made. Applicable accounting standards are followed. The financial statements are prepared on the going concern basis. The Board is also responsible for ensuring that proper books of accounts are kept and that internal control procedures are maintained in order to safeguard the assets and prevent and detect fraud and/or other irregularities. It is our responsibility to form an independent opinion, based on our audit, on those financial statements and to report our opinion to you.

#### **BASIS OF OPINION**

We conducted the audit in accordance with International Standards on Auditing (ISA). An audit includes an examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the Authority in the preparation of the financial statements and of whether the accounting policies are appropriate to the circumstances of the Authority, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatements whether caused by fraud, error or other irregularity. In forming our opinion, we also evaluated the overall adequacy of the presentation of the information in the financial statements.

#### **OPINION**

In our opinion, the Financial Statements give a true and fair view of the state of affairs of the Public Utilities Regulatory Authority as at 31ST December 2009, its surplus and cash flow statement for the year ended 31st December 2009 and have been prepared in accordance with International Accounting Standards and the Gambia Public Utilities Regulatory Authority Act, 2001.

*Augustus Prom*

AUGUSTUS PROM

CHARTERED CERTIFIED ACCOUNTANTS

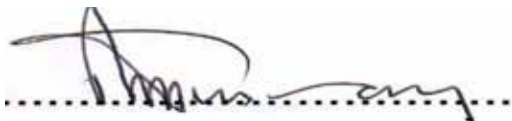
REGISTERED AUDITORS

DATE: **31/03/10**



**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**  
**BALANCE SHEET**  
**AS AT 31ST DECEMBER 2009**

	NOTES	2009 GMD	2008 GMD
<b>ASSETS</b>			
<b>Fixed Assets</b>	2	1,619,901	3,391,774
<b>Current Assets</b>			
Debtors & Prepayments	3	29,835,863	18,265,710
Cash and Bank Balances	4	9,363,415	6,146,088
		<u>39,199,278</u>	<u>24,411,798</u>
<b>Less: Current Liabilities</b>	5	(280,891)	(333,383)
<b>Net Current Assets</b>		<u>38,918,387</u>	<u>24,078,415</u>
<b>Total Assets</b>		<u>40,538,288</u> =====	<u>27,470,189</u> =====
<b>REPRESENTED BY:</b>			
Accumulated Fund	6	40,538,288	27,470,189
		<u>40,538,288</u> =====	<u>27,470,189</u> =====



CHAIRPERSON-BOARD OF COMMISSIONERS

DATE: **31/03/10** .....



THE DIRECTOR GENERAL

DATE: **31/03/10** .....



**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**  
**INCOME AND EXPENDITURE STATEMENT**  
**FOR THE YEAR ENDED 31ST DECEMBER 2009**

	NOTES	2009 GMD	2008 GMD
<b>INCOME</b>			
Subvention – Gambia Government	7	3,800,000	5,500,000
Regulatory Fees	8	42,605,980	37,987,904
Application Fees		40,000	-
Interest Earned		74,481	30,792
Interest on Loan Repayment		24,342	13,817
Investment Income		684,622	-
Other Income	9	134,500	36,000
Rascom Operators' Contribution		1,121,250	-
<b>Total Income</b>		<b>48,485,175</b> =====	<b>43,568,513</b> =====
<b>EXPENDITURE</b>			
Staff Cost	11	8,011,525	7,029,017
Operating Cost	10	25,168,883	16,396,169
Depreciation	2	2,236,668	2,880,020
<b>Total Expenditure</b>		<b>35,417,076</b> =====	<b>26,305,206</b> =====
<b>Excess of Income over Expenditure</b>		<b>13,068,099</b>	<b>17,263,307</b>
<b>Write off – Regulatory Fees (Gamtel / Gamcel)</b>		---	<b>(15,632,258)</b>
<b>Surplus for the year</b>		<b>13,068,099</b> =====	<b>1,631,049</b> =====



**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**  
**CASH FLOW STATEMENT**  
**FOR THE YEAR ENDED 31ST DECEMBER 2009**

	2009 GMD	2008 GMD
<b>OPERATING ACTIVITIES</b>		
Surplus for the year	13,068,099	1,631,049
Depreciation	2,236,668	2,880,020
Decrease/ (Increase) in Debtors	(11,570,153)	229,038
Increase/ (Decrease) in Creditors & Accruals	(52,492)	75,384
	<u>3,682,122</u>	<u>4,815,491</u>
<b>INVESTING ACTIVITIES</b>		
Purchase of Fixed Assets	464,795	866,690
	<u>(464,795)</u>	<u>(866,690)</u>
<b>NET CASH INFLOW</b>	<b>3,217,327</b> =====	<b>3,948,801</b> =====
<b>ANALYSIS OF CHANGES IN CASH &amp; BANK</b>		
Cash and Bank Balance at 31st December	9,363,415	6,146,088
Cash and Bank Balance at 1st January	(6,146,088)	(2,197,287)
<b>NET CASH INFLOW</b>	<b>3,217,327</b> =====	<b>3,948,801</b> =====

THE NOTES ON PAGES 59 TO 64 FORM AN INTEGRAL PART OF THE FINANCIAL STATEMENTS

**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)  
NOTES TO THE ACCOUNTS  
FOR THE YEAR ENDED 31ST DECEMBER 2009**

**Note 1: ACCOUNTING POLICIES**

- (i) Accounting Convention  
The Financial Statements are prepared under the historical cost convention of accounting and in accordance with applicable International Accounting Standards.
- (ii). Tangible Fixed Assets  
Tangible fixed assets are stated at cost less accumulated depreciation less impairment losses where applicable.
- (iii) Depreciation  
Depreciation is charged to the income statement on a straight line basis over the estimated useful lives of the assets. Full depreciation is charged in the year of acquisition and no charge in the year of disposal.

The Depreciation rates are as follows:

Vehicles	25%
Computers	25%
Furniture and Fittings	20%
Others	20%

- (iv) Income Recognition  
Income comprises of regulatory fees, contribution by the Gambia Government, External funding and any other income accruing on accounts. Revenue grants are recognized in the income statement on receipt. Capital grants are recognized in equity and are released to income statement to meet related costs.
- (v). Foreign Currency Transactions  
Transactions in foreign currency are translated at the rates of exchange ruling at the date of the transaction.
- (vi). Employee Benefits  
Obligation for contribution to the Social Security and Housing Finance Corporation administered pension scheme at a rate of 15% on employee gross earnings are recognized as expenses in the income and expenditure account. The Authority's contributions of D15.00 per month per employee to the social security and Housing Finance Corporation as injury compensation are recognized as expenses in income and expenditure account.
- (vii) Loans  
Loans given to the staff of the Authority are as contained in the service rules of the Authority.

THE NOTES ON PAGES 58 TO 63 FORM AN INTEGRAL PART OF THE FINANCIAL STATEMENTS

**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**  
**NOTES TO THE ACCOUNTS (CONTD.)**  
**FOR THE YEAR ENDED 31ST DECEMBER 2009**

**Note 2:       FIXED ASSETS – Tangible**

<b>COST</b>	<b>Motor Vehicles GMD</b>	<b>Computers GMD</b>	<b>Furniture GMD</b>	<b>Others GMD</b>	<b>Total GMD</b>
At 01/01/09	4,706,645	2,963,784	3,839,082	948,684	12,458,195
Additions	-	210,624	237,170	17,000	464,795
<b>At 31/12/09</b>	<b>4,706,645</b>	<b>3,174,408</b>	<b>4,076,252</b>	<b>965,684</b>	<b>12,922,990</b>
	=====	=====	=====	=====	=====
<b>DEPRECIATION</b>					
At 01/01/09	3,579,144	2,241,185	2,966,084	280,007	9,066,421
Charge for the Year	880,000	352,781	815,250	188,637	2,236,668
Disposals	-	-	-	-	-
<b>At 31/12/09</b>	<b>4,459,144</b>	<b>2,593,966</b>	<b>3,781,334</b>	<b>468,644</b>	<b>11,303,089</b>
	=====	=====	=====	=====	=====
<b>Net Book Value</b>					
<b>At 31/12/09</b>	<b>247,501</b>	<b>580,442</b>	<b>294,918</b>	<b>497,040</b>	<b>1,619,901</b>
	=====	=====	=====	=====	=====
<b>At 31/12/08</b>	<b>1,127,501</b>	<b>722,599</b>	<b>872,998</b>	<b>668,677</b>	<b>3,391,771</b>
	=====	=====	=====	=====	=====

THE NOTES ON PAGES 58 TO 63 FORM AN INTEGRAL PART OF THE FINANCIAL STATEMENTS

**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**  
**NOTES TO THE ACCOUNTS (CONT'D.)**  
**FOR THE YEAR ENDED 31ST DECEMBER 2009**

	2009 GMD	2008 GMD
<b>3. DEBTORS AND PREPAYMENTS</b>	29,835,863 =====	18,265,710 =====
<b>a) REGULATORY FEES OUTSTANDING</b>		
Global Electrical Group (GEG)	7,660,425	5,195,023
National Water & Electricity Co. Ltd. (Nawec)	11,128,755	10,230,147
Gamtel	2,940,385	-
Africell	1,325,256	-
Unique Solutions	50,000	-
	<hr/> 23,104,821	<hr/> 15,425,170
<b>b) SUNDRY DEBTORS</b>		
Staff Loans (Personnel)	755,918	470,972
Staff Loans (Car)	2,864,722	1,693,611
	<hr/> 3,620,640	<hr/> 2,164,583
<b>c) PREPAYMENTS</b>		
Rent prepaid	2,824,819	499,275
Insurance – Motor Vehicle	-	14,682
Insurance – Medical	285,583	162,000
	<hr/> 3,110,402	<hr/> 675,957
<b>4. BANK BALANCES</b>		
Trust Bank Ltd., Banjul	941,512	2,917,330
Guaranty Trust Bank Ltd.	580,038	1,200,279
ECO Bank (G) Ltd.	355,821	999,899
Access Bank (G) Ltd.	436,019	1,028,580
Reliance Financial Services	7,050,025	-
	<hr/> 9,363,415 =====	<hr/> 6,146,088 =====
<b>5. CREDITORS AND ACCRUALS</b>		
Support services – rent ancillary services	68,224	63,751
Provision on Telephone bills	112,667	169,632
Audit Fees accrued	100,000	100,000
	<hr/> 280,891 =====	<hr/> 333,383 =====

THE NOTES ON PAGES 58 TO 63 FORM AN INTEGRAL PART OF THE FINANCIAL STATEMENTS

**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**  
**NOTES TO THE ACCOUNTS (CONT'D.)**  
**FOR THE YEAR ENDED 31ST DECEMBER 2009**

		<b>2009</b>	<b>2008</b>
		<b>GMD</b>	<b>GMD</b>
<b>6. ACCUMULATED FUND</b>			
Opening Balance		27,470,189	25,839,140
Surplus for the year		13,068,099	1,631,049
Balance c/f		<b>40,538,288</b>	<b>27,470,189</b>
		=====	=====

**7. SUBVENTION**

This represents the total subvention received from the Government of The Gambia during the course of the year, details of which are as follows:

		<b>2009</b>	<b>2008</b>
<b>DATE</b>	<b>DETAILS</b>	<b>GMD</b>	<b>GMD</b>
26/01/09	Subvention	250,000	400,000
19/02/09	"	250,000	500,000
19/03/09	"	250,000	500,000
14/04/09	"	500,000	500,000
08/05/09	"	500,000	500,000
12/06/09	"	400,000	500,000
08/07/09	"	500,000	500,000
17/09/09	"	400,000	500,000
14/09/09	"	250,000	500,000
13/10/09	"	250,000	500,000
18/11/09	"	250,000	500,000
12/12/09	"	-	100,000
		<b>3,800,000</b>	<b>5,500,000</b>
		=====	=====

**8. REGULATORY FEES**

These are fees from regulated public and private enterprises as follows:

<b>NAME</b>	<b>INVOICED</b>	<b>INVOICED</b>
	<b>GMD</b>	<b>GMD</b>
Gamtel Co. Ltd.	11,761,542	9,017,723
Nawec Co. Ltd.	6,448,608	8,383,191
Gamcel Co Ltd	8,162,856	7,080,489
Africell Ltd.	10,825,256	6,171,477
Comium	742,316	1,040,000
Gampost	50,000	-
Netpage Ltd.	50,000	50,000
QuantumNet Ltd.	50,000	50,000
G. E.G Ltd.	4,465,402	6,195,024
Unique Solution	50,000	-
	<b>42,605,980</b>	<b>37,987,904</b>
	=====	=====

THE NOTES ON PAGES 58 TO 63 FORM AN INTEGRAL PART OF THE FINANCIAL STATEMENTS

**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**  
**NOTES TO THE ACCOUNTS (CONT'D.)**  
**FOR THE YEAR ENDED 31ST DECEMBER 2009**

	Notes	2009 GMD	2008 GMD
9.	<b>OTHER INCOME</b>		
	Sale of tender documents	18,100	2,000
	Operators ITU Day contribution	45,000	34,000
	Type Approval fees	21,400	-
	Penalty Charges	50,000	-
		<u>134,500</u>	<u>36,000</u>
		=====	=====
10.	<b>OPERATING COSTS</b>		
	Administration & office expenses (12)	18,589,054	13,268,031
	Membership Contributions	444,912	386,283
	Audit Fees	100,000	103,000
	Board Fees	374,000	385,580
	Travel & Training Expenses	5,660,917	2,253,275
		<u>25,168,883</u>	<u>16,396,169</u>
		=====	=====
11.	<b>STAFF COST</b>		
	Salaries & Wages	3,045,577	2,599,907
	Income Tax	1,018,124	934,706
	Pension Contribution	994,780	866,946
	Injury Compensation	5,760	4,995
	Responsibility Allowance	1,024,871	959,284
	Telephone Allowance	222,000	232,500
	Car Allowance	532,210	466,500
	Residential Allowance	383,096	332,400
	Acting/charge Allowance	-	3,465
	Staff leave Allowance	299,300	195,064
	Professional Allowance	485,807	433,250
		<u>8,011,525</u>	<u>7,029,017</u>
		=====	=====

THE NOTES ON PAGES 58 TO 63 FORM AN INTEGRAL PART OF THE FINANCIAL STATEMENTS

**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**  
**NOTES TO THE ACCOUNTS (CONT'D.)**  
**FOR THE YEAR ENDED 31ST DECEMBER 2009**

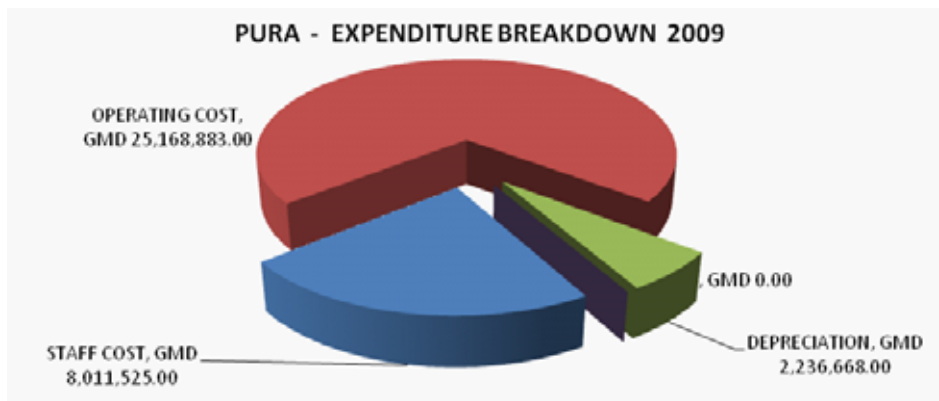
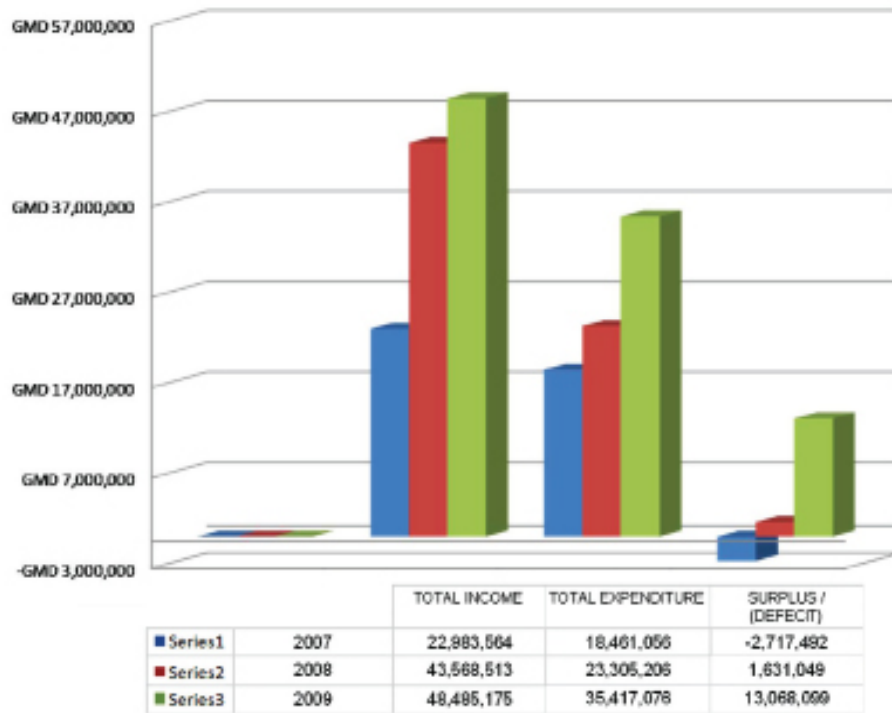
12. **ADMINISTRATIVE AND OFFICE EXPENSES**

	<b>2009</b>	<b>2008</b>
	<b>GMD</b>	<b>GMD</b>
Medical Expenses	396,619	82,929
Local Travel Expenses	92,837	55,583
Stationery/ Office supplies	312,785	519,523
Fuel & Lubricants	1,007,119	512,795
Rent/ Facility Mgt. services	1,376,891	1,153,528
Advertisement	601,400	160,519
Promotional Mat/ Activities	164,570	135,000
Subscription – Journal/Magazines	40,328	26,186
Postages	3,090	556
Communication	1,469,989	1,143,563
Stakeholder Relationship	1,169,774	412,961
Repairs & Maintenance	296,442	270,560
Consumer Outreach Program	738,981	560,079
Staff Car Scheme	600,000	1,850,000
Consultancy Fees	1,408,075	1,308,794
Conference & Meetings	6,838,831	4,379,529
Vehicle Insurance/ License	120,037	82,880
Corporate Social Responsibilities	540,510	565,120
Staff Uniform	23,080	13,600
Bank charges / Int. Payable	20,982	326
Operators ITU Day Expenses	44,800	34,000
Workshop / Retreat	465,424	-
Rascom Meeting Expenses	846,410	-
Travel Insurance	10,080	-
	<b>18,589,054</b>	<b>13,268,031</b>
	=====	=====

THE NOTES ON PAGES 58 TO 63 FORM AN INTEGRAL PART OF THE FINANCIAL STATEMENTS



**X. FINANCIAL HIGHLIGHTS - PURA 2009**





**PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)**  
**MANAGEMENT LETTER**  
**FOR THE YEAR ENDED 31ST DECEMBER 2009**

AUGUSTUS PROM  
CHARTERED CERTIFIED ACCOUNTANTS

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2 Kairaba Avenue – P O Box 587, Banjul, The Gambia  
Tel: (220) 4378146/ 4392376/ 4378147 – Fax (220) 4378148  
E-mail: augustus.prom@gamtel.gm      www.augustus-prom.gm

**IN CONFIDENCE**

**Ref: AP/C/573/10(1)**

Feb.9.2010

The Board of Commissioners  
Through: The Director General  
Public Utilities Regulatory Authority  
1 Paradise Beach Place  
Bertil Harding Highway  
Kololi, The Gambia.

Dear Sir,

PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)  
AUDIT OF THE FINANCIAL STATEMENTS  
FOR THE YEAR ENDED 31ST DECEMBER 2009

We have completed the audit of your Authority's financial statements for the year ended 31st December 2009 and wish to bring to your attention the following observations and findings, which came to light during the course of the audit exercise with suggestions and recommendations for possible improvement as necessary.

For your information, the purpose of the audit is to express our professional opinion on the financial statements presented to us by the Board of Commissioners. The audit should not be relied upon to disclose all defalcations or other irregularities, but if such exist and are discovered in the course of the audit, they would of course be disclosed.

We wish to thank the management and staff of your Authority for the co-operation accorded to us during the audit exercise.

Should you require further information on the matters raised, please do not hesitate to contact us.

Yours Sincerely,

*Augustus Prom*

AUGUSTUS PROM  
CHARTERED CERTIFIED ACCOUNTANTS  
REGISTERED AUDITORS

## **1.0 BANK ACCOUNTS**

### **1.1 FINDINGS**

It was observed during the audit that two additional Bank Accounts were opened with Reliance Financial Services during the period under review, bringing the total number of bank accounts of the Authority to six, held with five banks. We the auditors did not see the Board's approval as well as correspondences with Reliance Financial Services with respect to the opening of these new bank accounts. It was also observed that of the D9,363,415 bank balance as at 31st December 2009, D7,050,025 is held with Reliance Financial Services and the balance shared amongst the four other banks.

### **1.2 IMPLICATION**

We consider it a risk for the Authority to keep over 75% of its funds with a newly opened account in one Financial Institution without the approval of the Board of Commissioners.

### **1.3 RECOMMENDATION**

It is recommended that approval of the Board be sought before such decisions are taken by management.

### **1.4 PURA - MANAGEMENT RESPONSE**

The PURA Board of Commissioners, in one of their sittings in 2008, gave approval for PURA to maintain Five Bank Accounts with the commercial banks operating in The Gambia.

One Bank Account was opened at Reliance Financial Services to bring the total to the maximum five Bank Accounts. The other mentioned Account is an investment call account, which yield interest and matures on monthly basis.

The said amount of D7,050,025 held at Reliance Financial Services was Regulatory arrears paid by Nawec (D5,000,000), GEG (D2,000,000) and penalty fees paid by Gamcel (D50,000) in December 2008, and this amount has been identified for the procurement of Quality of Service (QOS) Equipment.

## WATER SAVING TIPS:

- i Repair dripping taps, leaks and overflows urgently.
- ii Buy water efficient devices and appliances. Look for the water efficient labelling.
- iii Use dual flush low capacity flushing toilet tanks (cistern).
- iv Regularly test toilet for leaks by adding dye to the toilet tank (do not flush) and observe toilet bowl. Appearance of colouring indicates "silent" leak on toilet and thus need repair.
- v Use water displacement device e.g. bags, toilet dams etc to reduce volume in inefficient toilet tanks.
- vi Do not use toilet as "trash can", unnecessary flushing of toilets waste water and can cause unnecessary burden on sewage system.
- vii Never allow water to run on waste. Continuous flow waste about 5 to 7 litres per minute.
- viii Close tap when brushing teeth or use a cup.
- ix Use sponge or bucket to car wash rather than hosepipe.
- x Normal shower uses less water than taking bath in a bath tub.
- xi Water gardens/lawns early in the morning and or evening to minimize evaporation losses.
- xii Promote water conservation to the community.
- xiii Report all network faults to NAWEC (Free call 169).
- ivx If fault still persist call PURA (Free call 148)



