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## **1.0 GENERAL INTRODUCTION**

Our general performance over Financial Year 2004/2005 which is the seventh year AUWSA has operated as an autonomous water supply and sewage disposal utility has yet again improved over the previous year; marking a trend of continuous improvement in performance.

Due to unfavourable weather conditions over the last four years water production has been declining and production over the reporting period was 11,299,827.69m<sup>3</sup> (about 323,595.72 less) compared to the previous year's production figure of 11,623,423.41m<sup>3</sup>. However value of water billed during 2004/2005 was Tshs. 2,293,873,606.28 compared to Tshs. 2,149,437,104.16 (an increase of Tshs. 144,436,502.12 or 6.7%) for the previous year.

Quality of water supplied to our customers was maintained uninterrupted. Number of new water connections increased by 1,384 whereas a total of 46 new sewerage connections were effected; bringing the number of connections to 20,744 and 2,721 for water supply and sewerage respectively at the end of June 2005. Total new water meters installed were 1,392; raising the metering coverage to 100% of all water customers and the target was achieved at September 2004. As a result of metering and leakages control among other measures; unaccounted for water was 34.6%

Our billing efficiency stood at 65.4% while the revenue collection efficiency on water and sewer billed was 91.46% due to an enhanced disconnection campaign against defaulters, sensitisation on timely payment of bills and recovery of arrears by using debt collectors; thus recording a revenue collection of Tshs. 2,519,257,331.57 an increase of Tshs. 297,088,977.94 or about 13.36% over the previous year's collection of Tshs. 2,222,168,353.63.

All earmarked capital projects were implemented fully except drilling of boreholes. Drilling of boreholes could not commence due to lack of implementation capacity by the Government Drilling Agency DDCA. Now they have acquired the necessary capacity and the drilling works would be executed during F/Y 2005/2006.

Net Profit generated increased by 23% to reach Tshs. 334.9m which accounted for 11% on Gross Income. While billings income increased by 4% from Tshs. 2.145bn of previous year to Tshs. 2.239bn, other income has increased by 62% from Tshs. 549.8m of previous year to Tshs. 899.4m and Share Capital contributed a 5.7% surplus as compared to a 4.6% for previous year.

**2.0 OPERATION AND MAINTENANCE ASPECTS (Annual Performance)**

**2.1 Human Resource Section**

➤ **Human Resource Disposition:**

Staff disposition in terms of profession as at the end of June 2005 was as follows: -

i	Professional Engineers	5
ii	Professional Accountants	2
iii	Marketing Professional	1
iv	Professional Materials Management	1
v	Computer Expert	1
vi	Technician Engineer	1
vii	Graduate Technician Engineers	3
viii	Assistant Internal Auditor	1
ix	Accountant	1
x	Credit Control	1
xi	Human Resources	2
xii	Public Relations	1
xiii	Accounts Technicians	5
xiv	Commercial Staffs	4
xv	Technicians of different disciplines	47
xvi	Assistant Technicians and drivers	36
xvii	Meter Readers	11
xviii	Pump Operators	30
ixx	Sewer/Pond attendants	11
xx	Common Cadre Personnel	38
	<b>Total</b>	<b>202</b>

➤ **Employment:**

In October 2004 three new employees were employed, these are 2 Receiving Cashiers and One Assistant Internal Auditor.

➤ **Annual Leave**

A total of 194 staff went for their annual paid leave during last financial year of 2004/2005 in the following pattern: -

July 2004	11
August 2004	14
September 2004	22
October 2004	27
November 2004	27
December 2004	33
January 2005	7
February 2005	11
March 2005	14
April 2005	14
May 2005	6
June 2005	8
<b>Total</b>	<b>194</b>

➤ **Medical Services:**

A total of 2162 (AUWSA staff & their families) cases received treatment from the tendered Hospitals within Arusha City. The distribution was as indicated below:

July 2004	-	176
August 2004	-	154
September 2004	-	153
October 2004	-	158
November 2004	-	172
December 2004	-	166
January 2005	-	173
February 2005	-	205
March 2005	-	179
April 2005	-	198
May 2005	-	216
June 2005	-	216
<b>Total</b>		<b><u>2,162</u></b>

➤ **Staff Training & Development:**

**Institutions of Higher Learning:**

- Two staffs were still pursuing Executive MBA at ESAMI, Arusha.
- One staff attended Post Graduated Diploma in Law on Mediation & Arbitration from November 2004 to January 2005 at the Institute of Social Work, Dar es Salaam (sponsored by DANIDA).
- One staff joined Advanced Diploma in Purchasing and Supply Management (ADPS) at CBE, in October 2004 for 3 years and sponsored by AUWSA.
- One staff completed FTC at Rwegarulila Water Resources Institute Dar es Salaam and reported on duty in May 2005.

**Professional Registration:**

- One staff attended review course for NBMM registration in November 2004.
- Seven staffs are attending evening classes on different stages for NBAA Professions.

**Examinations:**

- A total of 17 employees sat for Trade Test Grade II and Grade III examinations, while 5 attended a course and sat for Trade Test Grade I examinations at Rwegarulila Water Resources Training Institute Dar es Salaam.

**Seminars:**

- Two employees attended different courses in March 2005, one at the Tanzania Labour College (TLC)- Mbeya organized by Trade Union Congress of Tanzania (TUCTA) and another one at VETA Morogoro conducted by National Institute of Productivity (NIP)

● **Transport Facilities:**

- The Authority has 24 motor vehicles, however, 1 is attached to Nduruma Project, 3 vehicles have been grounded (needs major repair).
- AUWSA has 10 motor cycles and 1 tricycle, all the motor cycles are in good working condition, but the tricycle is grounded.
- The list of transport facilities were as follows:

Table I(i) Vehicles:

S/NO	DESCRIPTION	REG. NO	TYPE OF INSURANCE	USER SECTION	REMARKS
1	Benz 10 ton truck with crane (5 ton)	SU 35252	Third Party	M&R for installation and extraction of pumping unit	Good running condition
2	Man 10 ton truck with crane 3 ton)	SU 35259	Third Party	Vehicle grounded waiting to be Boarded off	Grounded
3	IVECO 3 ton truck with crane (1 ton)	SU 35255	Third Party	Purchases	Good running condition
4	Nissan Patrol S/W	SU 36201	Comprehensive	(MD) Administration	Good running condition
5	Nissan Patrol S/W	SU 35250	Comprehensive	Finance and Adm. Department	Good running condition
6	Nissan Patrol S/W	SU 35290	Third Party	(TM) Technical Services Department	Good running condition
7	Nissan Patrol S/W	SU 35254	Third Party	(CM) Commercial Department	Good running condition
8	Toyota Rav 4	SU 35256	Comprehensive	Commercial Department (Debts collection)	Good running condition
9	Toyota L/C H/T	SU 35258	Third Party	M&R Section	Good running condition
10	Toyota L/C H/T	SU 35235	Third Party	C.S. Section, water distribution/rationing	Good running condition
11	Toyota L/C H/T	SU 35251	Comprehensive	Planning and Construction Section	Good running condition
12	Nissan P/Up D/Cabin	SU 35261	Third Party	PR/I/A Units	Not in good condition
13	Toyota Hilux D/C	SU 35263	Comprehensive	C.S Section/Disconnection	Good running condition
14	Toyota L/C Pick Up	SU 35236	Comprehensive	Planning and Construction	Good running condition
15	Toyota Hilux D/C	SU 35237	Comprehensive	C.S. Section/Disconnection	Good running condition
16	L/Rover Defender H/T	SU 35238	Comprehensive	Finance Section	Good running condition
17	Isuzu P/Up D/C	SU 35246	Comprehensive	Sewerage Section	Good running condition
18	Toyota L/C H/T	SU 35247	Comprehensive	Customer Survey/Meter Installation	Good running condition
19	Toyota L/C H/T	SU 35248	Comprehensive	C.S. Section/Disconnection	Good running condition
20	Toyota L/C S/W	SU 35253	Comprehensive	Consultant Phase II	Good running condition
21	Toyota Hilux S/C	SU 35249	Comprehensive	Consultant/Phase II	Good running condition
22	Mitsubishi Lancer Saloon	SU 35257	Comprehensive	Administration	Good running condition
23	Toyota L/C S/W	SU 35260	Third Party	Vehicle grounded waiting to be Boarded off	Grounded
24	Toyota L/C H/T	SU 35262	Third Party	Vehicle grounded waiting to be Boarded off	Grounded

MD - Managing Director  
 TM - Technical Manager  
 CM - Commercial Manager  
 CS - Customer Services  
 M&R - Maintenance and Repair  
 PR - Public Relation  
 I/A - Internal Auditor

Table 1(ii) Motor cycles:

S/NO	DESCRIPTION	REG. NO	TYPE OF INSURANCE	REMARKS/UTILIZATION	REMARKS
1	Motor Cycle Trail 110	SU 35245	Comprehensive	C.S Section – Water Distribution	Good running condition
2	Motor Cycle Trail 110	SU 35231	Comprehensive	C.S Section Meter Reading	Good running condition
3	Motor Cycle Trail 110	SU 35234	Comprehensive	C.S Section – Water Distribution	Good running condition
4	Motor Cycle Trail 110	SU 35232	Comprehensive	C.S Section Meter Reading	Good running condition
5	Motor Cycle Trail 110	SU 35233	Comprehensive	Finance Section – Billing	Good running condition
6	Motor Cycle Trail 110	SU 35244	Comprehensive	C.S Section Meter Reading	Good running condition
7	Motor Cycle Trail 110	SU 35243	Comprehensive	C.S Section Meter Reading	Good running condition
8	Motor Cycle Trail 110	SU 35242	Comprehensive	Planning and Construction – Network – NWC	Good running condition
9	Motor Cycle Trail 110	SU 35241	Comprehensive	C.S Section – Water Distribution	Good running condition
10	Motor Cycle Trail 110	SU 35240	Comprehensive	M&R Section – Sekei Central Station	Good running condition
11	Motor Tricycle	SU 35239	Comprehensive	C.S. Section	Grounded

- **Communication:**

- Maintenance of communication facilities within and outside the Authority is a pre requisite for smooth running of the Authority's operations.
- In addition to the existing conventional telephone systems (cellular and land lines), the Authority maintains Radio Call Communication System with one fixed Repeater System (Sekei Central Station), mobile radio stations in all the vehicles (except Benz and Man trucks) and -Walk Talkies.
- 8 wells and 3-switchboard houses have an intercom system linked to Sekei Central Station, which enables a smooth well field management system to be effected.
- The telephones, faxes and electronic mail for the Authority are as follows:
  - 027 – 2504163/2548981 - Direct Line (MD)
  - 027 – 2506124 - General Line
  - 027 – 2548237/2504163/2548981 - Fax
  - 027 –2502690 - Emergency line – Sekei Central Station
  - E-mail - [auwsa@habari.co.tz](mailto:auwsa@habari.co.tz)

- **Meetings:**

**Full Board Sessions:**

A total number of 8 meetings took place from July 04 to June 05, (on 16<sup>th</sup> July 04, 30<sup>th</sup> September 04, 29<sup>th</sup> December 04, 11<sup>th</sup> March 05, 25<sup>th</sup> March 05, 29<sup>th</sup> April 05, 23<sup>rd</sup> May 05 & 29<sup>th</sup> June 05).

**Board Committee Sessions:**

A total number of 7 meetings took place from July 04 to June 05, (on 10<sup>th</sup> August 04, 06<sup>th</sup> October 04, 24<sup>th</sup> November 04, 10<sup>th</sup> January 05, 17<sup>th</sup> February 05, 13<sup>th</sup> May 05 & 23<sup>rd</sup> June 05).

**Management Meetings:**

A total number of 48 meetings took place from July 04 to June 05 (there were 2 sessions in each month of May and June 05 instead of 4).

**Staff Meeting:**

There was one meeting on 05<sup>th</sup> March, to deal with 2 letters addressed to MD with some malicious rumors of unfair treatment of employees. The employees denied all the allegations.

**Workers Union Meetings:**

Two sessions took place, one on 06<sup>th</sup> November 04 another on 11<sup>th</sup> May 05.

**Workers Committee Meetings:**

Two sessions took place one on 23<sup>rd</sup> October 04 another on 12<sup>th</sup> May 05.

**Trade Union:**

There was one meeting of TUICO members on 12<sup>th</sup> March 05, to elect new leaders for the coming 5 years.

**2.2 Planning and Construction Section**

**(i) Survey and investigation works**

- Survey, preparation of maps and cost estimates was done for 1475 new water connections – applied for.
- Surveys for pipeline extension works including design work was done for Njiro block D, Sakina juu, Majengo Chini (Kitopeni), Olgilai (additional intake to the sump), Sombetini (Ali saw mill), (total 3174m)

**(ii) Construction for new water connections**

Construction of 1,384 new water connections was done and categorically was distributed as follows:

<b>Domestic</b>	<b>Commercial</b>	<b>Institution</b>	<b>Industrial</b>	<b>Kiosks/ Stand pipe</b>
1,369	13	-	-	2

**(iii) Rehabilitation works**

- ❖ Renovation of all pump houses.
- ❖ Construction of watchmen shelter at Nduruma source was done.
- ❖ Fencing of Sakina bore hole yard.
- ❖ Fencing of Mt. Meru reservoir tank yard.
- ❖ Renovation of Loruvani servant quarters.
- ❖ Construction of Midawe Police post.

**(iv) Construction works**

- ❖ Extension of Njiro Block D pipeline 1600m long of 50mm diameter.
- ❖ Extension of Sakina juu pipeline 50mm dia of length 200m.
- ❖ Extension of Majengo chini (Kitopeni) pipeline 50mm dia of length 450m.
- ❖ Extension of Sombetini pipeline 50mm dia length 900m (Ali Saw Mill area).
- ❖ Construction of additional intake to the Olgilai sump 200mm dia of length 24m.

**(v) General Activities done in conjunction with Credit Control Section.**

- ❖ Major and Minor leakages repaired were 174 and 2480 respectively.
- ❖ Disconnected for non- payment 6470
- ❖ Reconnections were 6033
- ❖ Legalized customers were 0

(vi) **Training and Study: -**

The Planning and Construction Section in collaboration with Human Resources Section accommodated Students from various Institutions for practical training as tabulated below:

Name of Institution	Student 's field of study	Number of students	Student 's year of study	Duration of training.
Moshi VETA	Certificate in plumbing.	2	2 <sup>nd</sup> year	4 weeks
RWI	FTC -Works	3	2 <sup>nd</sup> & 3 <sup>rd</sup> year	8 weeks
DIT	ADE, Civil Eng	2	1 <sup>st</sup> & 3 <sup>rd</sup> Year	8 Weeks
UCLAS	Environmental Eng.	2	3 <sup>rd</sup> year	4 Weeks
UDSM	Civil Eng	4	2 <sup>nd</sup> Year	8 Weeks
TCA	FTC Civil	3	2 <sup>nd</sup> & 3 <sup>rd</sup> Year	4 Weeks
ERB (SEAP)	Civil Engineering	1	Fresh Graduate	1 year
ERB (SEAP)	Environmental Eng.	1	Fresh Graduate	1 year

**Table 2: Summary of Network and Customer Service and Credit Control Activities July 2004 – June 2005**

S/no	Descriptions	July 2004	Aug 04	Sept 04	Oct 04	Nov 04	Dec 04	Jan 05	Feb 05	Mar 05	Apr 05	May 05	Jun 05	TOTAL
1	Surveyed new water connections	150	151	149	114	131	119	125	109	143	96	84	104	1475
2	Constructed new water connections	111	165	162	126	92	133	98	126	114	96	79	73	1375
3	Major leakages repaired	6	6	13	9	10	8	19	10	8	11	24	42	174
4	Minor leakages repair	128	201	209	142	137	216	202	148	215	221	335	326	2480
5	Water meter replaced	36	38	46	8	23	26	40	57	43	34	28	48	427
6	Water meter for flat rate	2	01	0	1	0	1	0	1	4	3	4	0	17
7	Legalized customer	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Total number of installed w/meter	113	166	162	127	92	134	98	127	118	99	83	73	1392
9	Disconnection	344	706	561	499	893	852	715	645	343	319	381	212	6470
10	Reconnections	422	642	518	499	616	693	628	603	403	330	404	275	6033

**Table 3: Customer Survey Status by June 2005**

S/No	WARD	NUMBER OF CUSTOMER UP TO JUNE 2005	ACCOUNTS IN MAPS	SURVEYED CUSTOMERS
1	Kati	867	867	867
2	Levolosi	1,453	1,453	1,453
3	Kimandolu	1,599	1,599	1,599
4	Olorien	1,426	1,426	1,426
5	Them/Engutoto	3,426	3,426	3,426
6	Ngarenaro	1,200	1,200	1,200
7	Unga Ltd	1,036	1,036	1,036
8	Baraa	327	327	327
9	Lemara	596	596	596
10	Sombetini	2,101	2,101	2,101
11	Elerai	1,726	1,726	1,726
12	Daraja II	431	431	431
13	Kaloleni	1,565	1,565	1,565
14	Sekei	1,740	1,740	1,740
15	Sokon	1,240	1,240	1,240
16	Terrat	11	11	11
	<b>Total</b>	<b>20,744</b>	<b>20,744</b>	<b>20,744</b>

### 2.3 Production Section

During this period this section carried out both routine and emergency activities as follow:-

#### **Routine activities:-**

- Supervision of pumps operations.
- Monitoring of daily basis spring sources infrastructure and carrying out minor repairs of headworks at intake.
- Daily water production recording.
- Planning and monitoring of pump operation and making sure that planned staff shifts are adhered to in order to maintain continuous operation of the pumps and other production schemes.
- Cleanliness of spring and borehole sources surroundings.
- Water treatment using calcium hypochlorite
- Water quality monitoring which includes water sampling and analysis for residue chlorine, pH, calcium, magnesium, iron, nitrate, manganese, turbidity and fluoride.
- Bacteriological water analysis to sources which release their water direct to the distribution system.

#### **Emergency activities:-**

**Cleaning of water sump at Olgilai during rain seasons.**

(i) **Water Production Efficiency**

- Total volume of water produced for this year is 11,299,827.690m<sup>3</sup>

- Budgeted production for this year was

36,600m<sup>3</sup>/day (Jul 04 – Sept 04) x 92= 3,367,200m<sup>3</sup>

37,000m<sup>3</sup>/day (Oct 04 – Jun 05) x 273= 10,101,000m<sup>3</sup>

For pumps was 810,050.4m<sup>3</sup>/month x 12 = 9,720,604.8m<sup>3</sup>

For springs and Nduruma was 3,747,595.2m<sup>3</sup>

- Budgeted units of operation are 15 for pumps and 3 for springs and Nduruma sources.

- Budgeted production hours

For pumps = 22hours x 15units x 365days = 120,450hrs

For springs = 24hours x 2units x 365days = 17,520hrs

For Nduruma = 24hours x 182days = 4,368hrs

For springs and Nduruma = 21,888hrs

- Actual production hours this year

For pumps = 110,445hrs

For springs = 21,600hrs

- Actual water production

For pumps = 5,966,505.746m<sup>3</sup>

For springs = 5,121,359.943m<sup>3</sup>

- Production hours as per Budget

For pumps;

9,720,604.8m<sup>3</sup> = 120,450hrs

5,966,505.746m<sup>3</sup> = x

Therefore x =  $\frac{5,966,505.746m^3 \times 120,450hrs}{9,720,604.8m^3}$

= 73,932.192hrs

For springs;

3,747,595.2m<sup>3</sup> = 21,888hrs

5,121,359.943m<sup>3</sup> = x

Therefore x =  $\frac{5,121,359.943m^3 \times 21,888hrs}{3,747,595.2m^3}$

= 29,911.535hrs

- Production Efficiency (hours) =  $\frac{\text{Actual Production hours}}{\text{Production hours as per budget}}$

For pumps =  $\frac{73,932.192 \times 100}{110,445.00} = 66.94\%$

For springs and Nduruma =  $\frac{29,911.535 \times 100}{21,600} = 138.479\%$

- Production Efficiency (m<sup>3</sup>) =  $\frac{\text{Actual Production}}{\text{Production as per budget}}$

For pumps =  $\frac{5,966,505.746m^3 \times 100}{9,720,604.8m^3} = 61\%$

For springs and Nduruma =  $\frac{5,121,359.943m^3 \times 100}{3,747,595.2m^3} = 136.657\%$

Standard Efficient rate = 100%

Note:

(i) Ilkiroriti well was not in operation for the whole year this is one of the reason of poor performance for pumps.

(ii) The efficiency for springs and Nduruma source is due to over extraction during rainy seasons.

**Table 4: Monthly water production from July 2004 to June 2005 in m<sup>3</sup>.**

Month	New wells	Old wells	Ngarendolu	Nduruma	Olgilai	Total
July 2004	298,182.008	117,233.909	51,336.00	-	534,040.276	1,000,791.658
Aug 2004	283,363.480	128,808.256	63,240.00	-	450,031.613	925,443.349
Sep 2004	256,379.611	124,607.946	61,200.00	-	422,150.955	864,338.512
Oct 2004	311,578.405	117,837.734	30,975.00	-	439,111.103	899,502.242
Nov 2004	287,779.266	111,883.742	29,070.00	-	405,204.144	833,937.152
Dec 2004	303,821.089	117,039.903	30,039.00	-	422,165.124	873,065.116
Jan 2005	284,251.917	111,165.321	30,039.00	115,165.00	413,565.042	954,190.281
Feb 2005	250,832.122	101,112.590	27,132.00	97,216.84	356,215.290	832,508.843
Mar 2005	281,133.366	104,899.726	30,039.00	89,461.90	368,934.889	874,468.881
Apr 2005	279,714.859	93,328.322	30,662.00	94,035.74	374,214.575	871,956.363
May 2005	293,024.706	96,988.051	46,500.00	172,625.00	552,298.435	1,161,436.192
Jun 2005	254,947.244	102,516.905	45,000.00	224,839.50	580,885.456	1,208,189.105
<b>Total</b>	<b>3,385,008.073</b>	<b>1,327,422.000</b>	<b>475,232.00</b>	<b>793,343.98</b>	<b>5,318,816.900</b>	<b>11,299,827.690</b>

**Wells – 41.7% Springs – 51.3% River 7%**

**(ii) Water Quality Monitoring**

Through out the year monitoring has been carried out on both routine and emergency basis and the results obtained from analysis of various parameters are within Tanzanian Standards for drinking water quality. The water sampling exercise is done on weekly basis and under abnormal circumstances water analysis is performed anytime on customers' request.

**Table 5: Average water analysis results from distribution lines.**

Month	Chlorine residue in mg/L		Calcium mg/L	Magnesium mg/L	Nitrate mg/L	Manganese mg/L	Fluoride mg/L	Iron mg/L	pH	Turbidity NTU	E.Coli Nos/100 ml
	Lowest	Highest									
July 04	0.10	0.30	8.40	2.93	10.70	0.10	4.10	0.00	7.91	0.00	0
August 04	0.20	0.30	8.60	29.1	11.98	0.10	4.10	0.00	7.80	0.00	0
September 04	0.00	0.50	8.60	2.93	11.45	0.10	4.21	0.00	7.75	0.00	0
October 04	0.00	0.40	8.50	2.92	12.60	0.10	4.25	0.00	7.80	0.00	0
November 04	0.00	0.40	8.50	2.92	11.60	0.10	4.25	0.00	7.80	0.00	0
December 04	0.00	0.40	8.50	2.93	11.50	0.10	4.12	0.00	7.70	0.00	0
January 05	0.00	0.30	7.60	2.44	11.80	0.00	4.12	0.01	8.38	0.00	0
February 05	0.00	0.20	7.50	2.48	10.80	0.00	4.00	0.00	8.10	0.00	0
March 05	0.00	0.20	7.50	2.44	10.80	0.01	3.89	0.00	7.92	0.00	0
April 05	0.00	0.50	7.52	2.45	10.90	0.10	3.87	0.01	7.82	0.00	0
May 05	0.00	0.40	7.50	2.48	10.80	0.00	4.00	0.00	8.10	0.00	0
June	0.00	0.80	7.42	2.45	12.20	0.01	3.50	0.01	7.85	0.00	0

**(iii) Chlorine dosage**

Water treatment is done daily using calcium hypochlorite in four stations, namely Olgilai, Sekei, Nduruma and Ngarendolu. Calcium hypochlorite of 65% concentration is used to treat water at Sekei, Olgilai and Nduruma while calcium hypochlorite of 35%, commonly known as chlorinated lime is used to treat water at Ngarendolu station.

For the past twelve months the consumption of calcium hypochlorite was as follow:-

- Sekei Consumed	2,452.00 kg
- Olgilai consumed	2,440.00 kg
- Ngarendoulu consumed	1,588.00 kg.
- Nduruma	744.00 kg

**2.4 Maintenance and Repair Section**

During the financial year 2004/2005, this section carried out the following activities: -

**(i) Routine/ Preventive maintenance**

- Service of plants, vehicles and motorcycles according to their maintenance schedules.
- General maintenance of electrical and mechanical installations in the well field and AUWSA offices /buildings.
- Electrical power monitoring for the production infrastructures.
- Provision of specifications for spares and electrical/mechanical items to be purchased.
- Verification of monthly electricity bills from TANESCO by comparing the bills with actual readings in the pumping stations.

Note: Details of the remarkable maintenance ref. Table 7(i) & 7(ii).

**(ii) Corrective /Preventive Maintenance activities.**

- Repair of vehicles, motorcycles and plants as per attached schedule.
- General cleaning of doser pumps for Sekei and Olgilai treatment plants.
- Repair of lights at AUWSA'S offices and well field.
- Tracing and repair of power failure for Internal Auditors Office air conditioner.
- Repair of dozer pump at Sekei and Olgilai.
- Repair of power supply cable for chlorination plant at Olgilai.
- Repair of control panel for well no 1 Miovo II and well no 15 Kiranyi.
- Preparation for pump installation at well no 3 Moivo I.
- Installation of submersible pump set at well no 3 Moivol (26 kW motor)
- Extraction and installation of submersible pump set at well No 6 Ilboru (a new pump set of 75 kW was installed)
- Laying of cable and poles for security lights at Loruvani yard.
- Extraction and installation of submersible pump set for well No 15 Kiranyi (a new motor of 110 kW was installed).
- Extraction and installation of submersible pump set for well No 12 Sakina (a new motor of 15 kW was installed).

- Installation of new phase monitor relays for well number 8, and Bondeni borehole.
- Repair of Olgilai water pump.
- Extraction and installation of submersible pump at EMCO borehole (a new motor of 22 kW was installed to replace the defective 45 KW motor).
- Repairs of electrical installations in the wellfield.
- Extraction and installation of submersible pump for Old Sanawari borehole (a new motor of 11 kW was installed to replace the defective 15 KW motor).
- Preparations for May Day AUWSA service exhibitions.

**(iii) Investment measures.**

- Electrical installation at Nduruma control house and operator house.

**(iv) Training.**

- Two-second year students from TCA were accepted for industrial training in Automotive Engineering at AUWSA's workshops. The PT lasted for three months (January 2005 to March 2005).
- Two students from Nangwa and other two from Moshi VETA were accepted for industrial training in Automotive Engineering at AUWSA's workshops.

**Table 6: Monthly Electricity Consumption for pumps.**

<b>MONTHS</b>	<b>TOTAL kVA PER MONTH</b>	<b>TOTAL kWH PER MONTH</b>	<b>TOTAL BILL (Tsh.)</b>
JULY 04	695	360,696	25,489,616.00
AUG 04	695	370,876	26,457,396.00
SEPT 04	732	321,476	24,112,560.00
OCT 04	717	356,925	26,630,918.00
NOV 04	706	293,993	22,294,580.00
DEC 04	713	358,129	26,187,700.00
JAN 05	677	351,025	28,019,900.00
FEB 05	712	292,911	23,435,493.00
MAR 05	701	326,841	25,497,183.00
APR 05	701	331,500	26,610,480.00
MAY 05	695	321,785	26,786,702.00
JUNE 05	710	341,928	27,164,437.00
<b>TOTAL</b>	<b>8,454</b>	<b>4,028,085</b>	<b>308,686,965.00</b>

Table 7(i): Annual Maintenance and Repair costs form July 2004 to June 2005 – AUWSA motor vehicles &amp; motor cycles:

S/N	Name of Motor Vehicles/ Motor Cycles/ Plants.	Repairs made	Cost [Tsh]
1	SU 35237 TOYOTA HILUX D/C	Spare costs and fixing of a new battery N 70	45,000.00
		Spare costs and fixing tyre 700 × 16 firestone, shocks absorber.	416,000.00
		Spare costs and fixing of a new second leaf spring.	15,500.00
		Spare costs and fixing of new radiator cap, steel spring bush, spring bush, car carpet.	73,600.00
		Spare costs and fixing of new drop arm assembly.	98,000.00
		Spare costs and fixing of new second leaf spring LN 166.	31,000.00
		Spare costs and fixing of new battery N70, door lock rear, wiper blade, water pump, driving shaft and alternator brush.	460,500.00
		Spare costs and fixing of new tyres 700 × 16, rear door machine, door lever, main leaf spring, second leaf spring, centre bolt.	465,000.00
		Spare costs and fixing of new tyres 700 × 16, rear door machine, door lever, main leaf spring, second leaf spring, centre bolt.	460,500.00
		<b>SUB TOTAL</b>	<b>1,649,100.00</b>
2	SU 35290 NISSAN PATROL S/W	Spare costs and fixing of a new windscreen and air cleaner.	226,000.00
		Spare costs and fixing of a new battery N 70.	55,000.00
		Spare costs and fixing of new clutch booster, track rod and tie rod end.	809,000.00
		Spare costs and fixing of new fuel gauge.	115,000.00
		Spare costs and fixing of new master cylinder break, hand machine, break booster, coil spring.	1,011,500.00
		Spare costs and fixing of new fan belt.	32,000.00
		<b>SUB TOTAL</b>	<b>2,248,500.00</b>
3	SU 35354 NISSAN PATROL S/W	Spare costs and fixing of a new rear caliper and water gauge.	468,000.00
		Spare costs and fixing a new tyres 310 x 10.5 michelin.	1,083,660.00
		Spare costs and fixing of new rear stub axle, pan hard bush, steering damper.	258,000.00
		Spare costs and fixing of new outer and inner hub bearings.	152,000.00
		Spare costs and fixing of clutch plate, release bearing, steering box rear kit, bearing clutch sleeve, clutch master cylinder and safety valve fuse control.	821,000.00
		Repair of wiring system, heater plug glow.	124,000.00
		Spare costs and fixing of new diesel filter plug, mechanical jack.	668,000.00
<b>SUB TOTAL</b>	<b>3,574,660.00</b>		
4	SU 35263 TOYOTA HILUX D/C	Spare costs and fixing of a new fan belt	40,500.00
		Spare costs and fixing of door lock rear, spring bush rear.	35,000.00
		Spare costs and fixing of new driving shaft front, stabilizer bolt, wish born bush, rear shock absorber, ignition switch, stabilizer link.	706,000.00
		Spare costs and fixing of new driving shaft bolt.	90,000.00

S/N	Name of Motor Vehicles/ Motor Cycles/ Plants.	Repairs made	Cost [Tsh]
		Spare costs and fixing of new main leaf spring LN 166, shock absorber, clutch release bearing, clutch plate, pressure plate, wish born bush LN 166, air cleaner element.	469,600.00
		Procurement and fixing of new car audiocassette and spare parts.	78,000.00
		Spare costs and fixing of top cover, horn and ball joints.	146,500.00
		Spare costs and Installation of alarm system, fixing of new ball bolt, shack absorbers, air cleaner, parking light, lock free four wheel.	635,000.00
		<b>SUB TOTAL</b>	<b>2,200,600.00</b>
5	SU 35261 NISSAN PATROL S/W	Spare costs and fixing of a new main spindle handle.	670,000.00
		Spare costs and fixing of new battery N70, Air cleaner element, tie rod end, cross bearing.	206,000.00
		Spare costs and fixing of new alternator assy.	480,000.00
		Spare costs and fixing of new window rubber, wiper blade, and repair of wiring g system.	326,500.00
		Spare costs and fixing of new wiper machine, cabin mounting, cross bearing TD 27, window channel, shock absorber.	441,000.00
		<b>SUB TOTAL</b>	<b>2,213,500.00</b>
6	SU 35246 ISUZU D/C	Spare costs and fixing of new shock absorbers.	96,000.00
		Service of air condition/ labour and repair of seat cover	223,000.00
		Spare costs and fixing of new disc break, spring bush, air cleaner, steel spring bush.	156,000.00
		Spare costs and fixing of new tyre 205 × 16.	688,950.00
		Spare costs and fixing of new air cleaner.	90,000.00
		<b>SUB TOTAL</b>	<b>1,253,950.00</b>
7	SU 35247 TOYOTA L/C	Spare costs and fixing of new tyres 750 x 16 ply 12.	350,320.00
		Repair of seats and floor carpet.	160,000.00
		Spare costs and fixing of break pad.	30,000.00
		Spare costs and fixing of new battery N 70.	55,000.00
		Spare costs and fixing of new battery N 70.	55,000.00
		<b>SUB TOTAL</b>	<b>650,320.00</b>
8	SU 35250 NISSAN PATROL S/W	Spare costs and fixing of new stabilizer link, front caliper, swival bearing, Air cleaner and tyres size 310 x 15 MICHELIN.	907,598.00
		Service of injector pump and nozzle fixing of new steering damper, steering arm tie rod end.	676,000.00
		Spare costs and fixing of new break disc, break disc caliper, break disc caliper piston,	612,500.00
		Spare costs and fixing of a new shock absorber front, engine mounting.	246,000.00
		Spare costs and fixing of new pressure assembly, clutch plate, release bearing and repair of wiring system.	246,000.00
		Spare costs and fixing of new battery N 70.	110,000.00
		Spare costs and fixing of new break adjuster return spring, lever adjuster, rear shock absorber.	269,500.00
		Spare costs and fixing of new windscreen, windscreen rubber, diesel filter switch level, seal for diesel filter.	417,500.00
		<b>SUB TOTAL</b>	<b>3,485,098.00</b>

S/N	Name of Motor Vehicles/ Motor Cycles/ Plants.	Repairs made	Cost [Tsh]
9	SU 35262 TOYOTA L/C	Spare costs and fixing a new break cable, drum front lining break, wheel cylinder assembly and battery N70.	808,800.00
		Spare costs and fixing of new second leaf spring, repair of front seat, repair of rear seat.	169,000.00
		Spare costs and fixing of new wheel cylinder rubber, rear lining break and wheel studs.	74,000.00
		Spare costs and fixing of new battery N 100 fully charged.	68,000.00
		<b>SUB TOTAL</b>	<b>1,119,800.00</b>
10	SU 35235 TOYOTA L/C	Major repair including engine overhaul, panel beating and body spray.	3,659,400.00
		Spare costs and fixing of new thrust washer, self-stator and repair of seats and side cover.	772,000.00
		Spare costs and fixing of new break pads.	28,500.00
		Spare costs and fixing of new hand break and accelerator cables.	70,000.00
		Spare costs and fixing of new clutch master cylinder assy, swival bearing.	123,000.00
		Repair of wiring system	144,000.00
		Spare costs and fixing of new steering damper.	75,000.00
		Fixing of new tie rod end, fan belt, tyre 750 × 16 × 10 ply.	825,000.00
		<b>SUB TOTAL</b>	<b>5,696,900.00</b>
11	SU 35256 TOYOTA RAV 4	Spare costs and fixing of a new Wheel bearing, ball joint, wind sceen, wish born bushes, stabilizer link, wiper blade, radiator cap, battery N70, and Tyres size 215 x 70 x 16 MICHELIN and door motor machine.	1,919,500.00
		Service of air condition/ labour	140,000.00
		Spare costs and fixing of new topped, seat topped, bumper rubber, insulation rubber, front wheel bearing, steering repair kit, fan belt, differential mounting, air condition belt, silicone, bush supporting, rear shock absorber, stabilizer link.	928,000.00
		Spare costs and fixing of new battery N50 and spark plug.	49,000.00
		Repair of central lock system, steering system, water gauge, window machine, battery terminal, reverse light switch.	151,500.00
		Spare costs and fixing of new ignition lead, ignition assy, radiator complete.	607,000.00
		<b>SUB TOTAL</b>	<b>3,795,000.00</b>
12	SU 35252 BENZ TRUCK	Procurement and fixing of a new radio cassette.	204,000.00
		Spare costs and fixing of new tires 1200 x 20 set.	717,980.00
		Repair of wiring system	144,000.00
		<b>SUB TOTAL</b>	<b>1,065,980.00</b>
13	SU 35259 MAN TRUCK	Spare costs and fixing of new Clutch master cylinder Assy, Clutch sleeve Assy, Windscreen Assy, Head lamp and Indicator Assy.	1,310,000.00
		Procurement of wheel spanner HD.	45,000.00
		Spare costs and fixing of new battery terminal, side mirror, air horn.	177,000.00
		Repair of wiring system	144,000.00
		Spare costs and fixing of new automatic fan and Thermometer.	1,600,000.00

S/N	Name of Motor Vehicles/ Motor Cycles/ Plants.	Repairs made	Cost [Tsh]
		<b>SUB TOTAL</b>	<b>3,276,000.00</b>
14	SU 35251 TOYOTA L/C	Spare costs and fixing of new tyres 750 x 16 ply 12	350,320.00
		Spare costs and fixing of a new tie rod end, spring bush.	142,000.00
		Spare costs and fixing of new steering damper, wiper blade, Tie rod end, car carpet, secure injector pump nozzle.	869,500.00
		Spare costs and fixing of new shock absorber.	100,000.00
		Spare costs and fixing of new horn, swival oil seal, indicator assy, winding machine, fuel tank gauge.	227,000.00
		Spare costs and fixing of new rear door channel.	140,000.00
		Spare costs and fixing of clutch plate, release bearing, steering box rear kit, bearing clutch sleeve, clutch master cylinder and safety valve fuse control.	402,000.00
		Spare costs and fixing of new hand break cable, timing belt, wiper blade, window machine, door lever handle. Battery N 70.	311,000.00
		<b>SUB TOTAL</b>	<b>2,191,500.00</b>
15	SU 35248 TOYOTA L/C	Spare costs and fixing of a new door rubber, rear spring bush, air cleaner element sun vision.	213,000.00
		Spare costs and fixing of new sleeve cylinder clutch.	78,000.00
		Spare costs and fixing of winding machine, wiper blade, spring bush, air cleaner.	136,500.00
		Repair of wiring system.	144,000.00
		Spare costs and fixing of new tyre 750 x 16 x 10 ply	440,000.00
		Spare costs and fixing of new break lining, side mirror, radiator cap.	81,000.00
		<b>SUB TOTAL</b>	<b>1,092,500.00</b>
16	SU 35255 IVECO MIN TRUCK	Spare costs and fixing of a new battery N 100.	55,000.00
		Spare costs and fixing of new seat/ floor carpet.	38,000.00
		Procurement and installation of new radio cassette	456,000.00
		Repair of wiring system	144,000.00
		Spare costs and fixing of new tyre 205 x 16.	577,000.00
		Service of injector pump and nozzle.	370,000.00
		<b>SUB TOTAL</b>	<b>1,640,000.00</b>
17	SU 35238 LAND ROVER Tdi	Spare costs and fixing of a new battery N 70.	48,000.00
		Spare costs and fixing of new timing belt, idler static timing pulley tension, differential oil seal and fuel pump.	194,000.00
		Spare costs and fixing of new fuel gauge, shock absorber.	23,150.00
		Repair of wiring system.	104,000.00
		<b>SUB TOTAL</b>	<b>369,150.00</b>
18	SU 35257 MITSUBISHI LANCER	Spare costs and fixing of new tube 160 x 13.	97,500.00
		<b>SUB TOTAL</b>	<b>97,500.00</b>
19	SU 35258 TOYOTA L/C	Spare costs and fixing of new spring bush, door lever, jack 3 ton.	156,000.00
		Spare costs and fixing of new door locks.	22,000.00
		Rear combination, steering damper, tie rod end, wheel spanner.	224,500.00
		Repair of wiring system.	144,000.00

S/N	Name of Motor Vehicles/ Motor Cycles/ Plants.	Repairs made	Cost [Tsh]
		Spare costs and fixing of new lining break, wheel stud.	50,000.00
		<b>SUB TOTAL</b>	<b>596,500.00</b>
20	SU 35336 TOYOTA L/C PICKUP	Spare costs and fixing of new air cleaner, spring bush.	76,000.00
		Fixing of new third leaf spring, main leaf spring front, second leaf spring.	83,000.00
		<b>TOTAL</b>	<b>159,000.00</b>
21	SU 35260 TOYOTA S/W	Spare costs and fixing of new propeller shaft front, door lever lock L/H, cross bearing, swival oil seal.	510,000.00
		Repair of wiring system.	281,500.00
		Spare costs and fixing of new handle machine, battery N 100, winding machine.	119,000.00
		<b>SUB TOTAL</b>	<b>910,500.00</b>
22	SU 35249 TOYOTA HILUX	Spare costs and fixing of wiring ignition switch.	28,500.00
		<b>SUB TOTAL</b>	<b>28,500.00</b>
23	SU 36201 NISSAN PATROL S/W	General service.	116,301.60
		Procurement and fixing of new white loose cover.	160,000.00
		Procurement and installation of new sport light and bull Guards.	662,000.00
		<b>SUB TOTAL</b>	<b>938,301.60</b>
24	Generator MABEX	Spare costs and fixing of a new battery N70.	110,000.00
		<b>SUB TOTAL</b>	<b>110,000.00</b>
25	AUWSA MOTORCYCLE	Fixing of new fork level gear.	48,000.00
		Spare costs and fixing of anew advancer.	28,000.00
		Spare costs and fixing of a new Indicator Assy, wheel bearing, Tyre 2.75 x 17, Side mirror, lining break, speed meter cable, Hand break cable.	351,600.00
		Spare costs and fixing of new sprocket, horn, flasher unit, release spring kick, ignition switch, and overhaul.	49,000.00
		Spare costs and fixing of new rectifier, lock switch, control switch, oil seal, piston assy, piston ring, rear shock absorbers.	143,500.00
		Spare costs and fixing of a new clutch cable break cable.	138,000.00
		<b>TOTAL</b>	<b>682,100.00</b>
26	WORKSHOP	Procurement of Oxygen gas and Acetylene gas.	152,325.00
		Spares procured by cash.	594,424.00
		Cast iron rod, ant rusts WD 40, steel rod, grinding disc, cutting disc mould steel bracing rod.	501,400.00
		Repair of shock absorbers, purchase of long life coolant and pop rivet machine.	410,000.00
		<b>SUB TOTAL</b>	<b>1,658,149.00</b>
	<b>GRAND TOTAL</b>		<b>38,745,008.60</b>

Table 7 (ii): Annual maintenance and repair costs form July 2004 to June 2005 – other motor vehicle repaired by AUWSA:

S/N	Name of Motor Vehicles	Repairs made	Cost [ Tsh]
1	STJ 878 POLICE LAND ROVER FOR NDURUMA W/S PROGRAM	Spare costs and fixing of a new hand break cable, shock absorber, radius arm bush, flexible mounting, headlamp assy relay, driving member, water pump fan, and cylinder head gasket. cassette, installation of speaker.	1,364,240.00
		Spare costs and fixing of new cylinder rear assy, valve seal steering damper assy.	1,619,000.00
		Servicing of injector pump and nozzle, heater plug, battery N 70.	485,000.00
		Spare costs and fixing of new battery N70, hub assy, wash wiper switch, indicator switch, expansion tank, inter cooler, head lamp bulb, self starter brush, front shock absorbers, oil pressure switch, break pads F/R, break master cylinder.	1,150,500.00
		Spare costs and fixing of new gearbox mounting, door lock, tie rod end kit, bottom hosepipe, hand break cable, tie rod end, cylinder head gasket, tappet assembly, cylinder head bolt and repair of wiring system.	858,000.00
		Spare costs and fixing of new radiator assy, engine mounting, gear mounting.	912,000.00
		Purchase of new job cards, service cards, grease gun.	462,400.00
		Repair of wiring system.	144,000.00
		Spare costs and fixing of new clutch master cylinder, vacuum pump, timing belt, and idle static timing belt and tension pulley.	504,000.00
		Spare costs and fixing of new flywheel bush, connecting arm bush, gasket marker, rear axle, thrust washer, main and connecting rod bearing, overhaul gasket, heater plug, clutch plate assy, release bearing, air cleaner, cross bearing, fuel pump assy, bush rubber (pan hard), oil seal, piston ring, shellac, steering column, drive member, front axle assy, door lock, side glass, rear caliper assy, oil jet, crankshaft pulley timing.	2,985,400.00
		Spare costs and fixing of new universal joint, front coil spring, steering power assy, ball joint, drop arm, hand break cable assy.	1,142,000.00
		<b>SUB TOTAL</b>	<b>11,626,540.00</b>
2	STJ 9998 Vehicle from Ministry of water and livestock.	Spare costs and fixing of new tyre 275 × 16	355,016.00
		Spare costs and fixing of new break pad, inner wheel bearing, outer wheel bearing, stabilizer, diesel filter, oil filter, primer filter.	261,000.00
		<b>SUB TOTAL</b>	<b>616,016.00</b>
<b>GRAND TOTAL</b>			<b>12,242,556</b>
<b>GRAND TOTAL 7(i) + 7(ii)</b>			<b>50,987,564.60</b>

## 2.5 Supplies Section

### (i) Introduction

Purchasing and stores operation fared well in spite of sporadic changes in the prices of most of the items commonly used such as:- Fuel and lubricants, Pipes and fittings, Cements. In general a number of suppliers revised the prices quoted and agreed upon on the tender contract to supply. It was planned that almost all items will be purchased by tender during the financial year. Unfortunately this was not accomplished because user sections did not include in the tender documents all the items required during the year. Around 45% of the items required were purchased through floating quotes.

**Table 8: Summary of Opening stock**

The opening stocks for the year 2004/2005 was as shown below:

S/N	Group	Total
1	Pipes and fittings	381,608,686.98
2	Electrical materials	9,174,657.60
3	Water chemicals	3,150,090.00
4	Spare parts for MV, Generator, pumps and M/Cycles	59,921,078.55
5	Stationeries	16,398,799.97
6	Fuel and lubricants	5,518,301.40
7	General Materials	5,632,075.00
	<b>Total</b>	<b>481,403,689.50</b>

**Table 9: Annual purchases (Tshs) 2004/2005 LPO 2707 - 3420**

	TSHS	FOREIGN
Jul-04	52,423,742.91	
Aug-04	61,130,907.00	
Sep-04	37,612,446.64	
Oct-04	31,602,717.00	
Nov-04	47,897,303.00	
Dec-04	37,886,585.79	
Jan-05	29,174,998.00	JY 4,000,000.00
Feb-05	36,514,441.00	
Mar-05	51,800,399.25	KSHS. 1,466,650.00
Apr-05	56,410,657.00	US\$ 1,050.00
May-05	50,417,454.00	
Jun-05	35,837,092.87	US \$ 10,730.00
	<b>528,708,744.46</b>	

Breakdown of purchases on monthly basis are attached as Annex to this report where as July 2004 to March 2005 amounts above Tshs. 1.0million have been disclosed and April to June, 2005 report all purchases

**Table 10: Stocks received and issued**

Month	Stock Received	Stock Issued	Purchases for Direct use
Jul-04	27,106,356.00	15,420,684.48	20,476,112.10
Aug-04	15,673,638.00	20,169,908.48	13,848,957.00
Sep-04	18,845,046.00	27,941,584.34	18,158,234.00
Oct-04	10,737,266.00	33,321,422.60	16,481,263.70
Nov-04	20,424,651.00	19,350,971.33	19,834,658.00
Dec-04	28,698,940.00	20,143,698.00	8,332,470.00
Jan-05	37,447,635.79	20,642,218.32	6,091,870.00
Feb-05	9,431,120.00	20,963,105.83	11,019,090.00
Mar-05	8,775,958.25	18,467,611.51	18,675,382.00
Apr-05	57,896,950.00	24,221,386.50	11,125,044.00
May-05	21,444,600.00	26,639,666.33	22,034,771.00
Jun-05	16,967,600.00	25,356,423.61	25,857,518.60
<b>Total</b>	<b>273,42,4761.04</b>	<b>272,638,681.33</b>	<b>191,935,370.40</b>

**Table 11: Fuel and lubricants consumption**

Month	Stock Received	Stock Issued
Jul-04	9,755,225.00	7,924,267.80
Aug-04	9,497,520.00	9,212,882.51
Sep-04	9,273,920.00	7,161,722.08
Oct-04	10,304,000.00	9,192,592.00
Nov-04	11,121,900.00	10,402,580.00
Dec-04	9,032,000.00	10,770,367.00
Jan-05	10,732,960.00	7,352,208
Feb-05	-	7,698,957.00
Mar-05	8,001,499.01	1,939,050.000
Apr-05	11,494,000.00	6,495,903.00
May-05	9,170,000.00	8,230,560.00
Jun-05	2,993,604.00	7,589,868.00
<b>Total (Tshs)</b>	<b>105,314,179.00</b>	<b>100,033,406.00</b>

**(ii) Foreign purchases**

During the year 2004/2005 the following items were purchased by foreign currencies:-

- Nissan Patrol 4WD JY 4,000,000.00
- Data Loggers and its accessories US\$ 11,780.00
- Meter calibration unit and spares for dozing pumps Kshs. 1,466,650.00

**Table 12: Physical stock at the end of the year as on 30<sup>th</sup> June, 2005**

S/N	Group	Total
1	Pipes and fittings	310,452,335.50
2	Electrical materials	7,605,321.00
3	Water chemicals	2,973,420.00
4	Spare parts for MV, Generators, pumps and M/Cycles	44,608,198.65
5	Stationeries	23,878,017.00
6	Fuel and lubricants	10,484,466.00
7	General Materials	4,452,971.00
	<b>Total</b>	<b>404,454,729.15</b>

**Major Operations**

- Valuation of stocks for the year was carried out in July and August 2004.
- Annual stock taking was carried out in June, 2005.

**(iv) General Observation**

The operation of the entire Supplies Section were fairly executed. The major problem experienced was the sporadic changes in prices due to the change of a shilling in comparison to the USA (\$) and Euro.

**2.6 Customer Service Section**

The activities performed over the year include:-

- Taking and recording monthly meter readings.
- Repair and replacement of defective water meters, where 427 meters were replaced.
- General monitoring of water supply situation and carrying out water rationing when necessary.
- Sorting out customers complaints in conjunction with Planning and Construction Section where by 988 complaints were received and dealt with.

**2.7 Credit Control Section**

This Section deals with the controlling and management of debt collection exercise. The main activities that were undertaken for the year 2004/2005 were as follows:

- In collaboration with Commercial Department this section has assisted the exercise of Debt Collection Service to Majembe Auction Mart and J.J. Coopers from April to June, 2005.
- Preparation of disconnection lists by zones and update it on daily basis. In this financial year a total number of 6,470 customers were disconnected.
- Reconnection exercise was conducted to customers who paid for their outstanding bills. 6,037 customers were reconnected (which is 94% of the disconnected customers).
- To earmark Prime time and organize notifications to customers reminding them of prompt payment of their monthly bills. All areas around Arusha Municipality were notified through loud speakers for prompt payment of bills from July 2004 to June 2005, i.e. three days in each month.

- The customers with huge debts their bills were re-scheduled to installments. Some customers were allowed to pay in installments. This reduced the amount of uncollected debts and generated revenues to the Authority for current consumption.
- This section has also handled issues regarding illegal connections and meter by passes, which were reported to Public Relations Office. The section managed to disconnect 211 illegal/by passes connections during the year and a total of Tshs. 14,211,414/= were collected through this exercise.
- Through the above mentioned activities i.e. disconnection, reconnection, illegal/by passes, debt collectors efforts (i.e Majembe Auction Mart Tshs. 30,315,965.80; J.J. Coopers Tshs. 17,935,333.51 from April to June, 2005) and AUWSA efforts Tshs. 2,468,108,616.00, has enabled the revenue collection of Tshs. 2,516,359,914.95 against the total collection expected of Tshs. 2,742,127,406.00. (Revenue collected is 91.78/= of total collection expected).

**Table 13: Revenue Collection Efficiency (July 2004 – June 2005)**

Month/Year	Volume of water billed (m <sup>3</sup> )	Value of water billed	Revenue collection		Revenue collection efficiency
			Water	Total Revenue	
June 04	482,555.83	163,924,498.71	-	-	-
Jul-04	524,364.19	178,272,818.65	146,786,441.77	187,664,693.57	89.54%
Aug-04	574,754.03	190,830,069.84	151,558,839.59	188,743,629.33	85%
Sep-04	535,136.60	204,320,935.91	154,255,445.80	189,110,260.01	81%
Oct-04	506,535.77	196,335,324.99	172,462,620.19	206,093,847.15	84.4%
Nov-04	487,975.04	193,175,871.49	177,503,296.83	208,582,964.06	90.4%
Dec-04	632,806.24	227,792,848.09	175,593,009.98	208,520,933.03	91%
Jan-05	541,250.67	201,462,511.72	157,261,072.80	192,951,507.30	69%
Feb-05	465,088.41	171,796,605.31	177,165,442.64	215,537,705.80	87.9%
Mar-05	475,765.00	160,827,585.71	185,968,673.56	222,660,464.27	93.6%
Apr-05	482,597.94	176,176,240.80	185,109,190.28	219,477,353.44	92.17%
May-05	489,349.57	179,160,473.54	185,018,662.28	238,863,782.23	97.05%
Jun-05	550,342.98	198,341,400.14	204,602,397.68	241,050,191.38	95.76%
<b>TOTAL</b>	<b>6,748,522.27</b>	<b>2,442,417,184.90</b>	<b>2,073,285,093.40</b>	<b>2,519,257,331.57</b>	<b>88.06%</b>

**Discussion on the table above compared to similar performance F/Y 2003/2004:-**

Water production over the reporting period was less than the previous year by 323,595.72m<sup>3</sup> (a decrease of 2.7%) due to failure of rains (both short and long rains); however we were able to bill water and sewer worth Tshs. 2,423,204,080.00 of which is Tshs. 146,835,242.19 more than the previous year pointing to increased efficiency in our operations. (An increase of 6.4%).

**Revenue collection**

Revenue collection from water and sewer alone has gone up by Tshs. 406,315,275.00 (an increase of 21%) whereas total revenue collection has improved by Tshs. 297,088,977.94 (an increase of 13.36%).

## 2.8 Sewerage Section

### Introduction.

During this year the main activities done were to identify sewerage customers, sewer cleaning, sewer blockage removals, new sewer connection, sewer repairs, removal of debris from screens at ponds, monitoring Industries which discharge untreated waste water and effluent quality monitoring.

#### (a) Sewerage status.

##### (i) Customers connected to Sewerage system for year 2004/2005.

**Table 14: Sewerage Customers.**

No.	CATEGORY	NUMBER OF CONNECTIONS	NEW CONN	DELETED CUSTOMERS	NEW CONN. BY SURVEY	PRIVATE WATER SOURCE
1.	Domestic	2,094	32	12	18	0
2.	Commercial	423	10	1	2	1
3.	Institutional	96	2	0	0	2
4.	Industrial	105	2	0	0	1
5.	Bottling Co.	3	0	0	0	2
	<b>TOTAL</b>	<b>2,721</b>	<b>46</b>	<b>13</b>	<b>20</b>	<b>6</b>

In the budget of 2004/2005 the expected number of sewerage customers was 2,767, therefore, the achievement to the target is 98.3% and the underachievement is due to delay of implementation of Levulosi sewer line and the Kambi ya Fisi line is still very short to reach the customers as such need to be extended.

##### (ii) Sewerage Revenue Collection 2004/ 2005.

**Table 15: Revenue Collection 2004/ 2005.**

No.	Type of Collection	Amount Collected in 2004/2005	Budgeted Collection for 2004/2005	Achievement
1.	Sewerage Bills	127,699,745.12	152,806,608.00	83.6%
2.	New Sewerage Connections	1,021,050.00	1,275,000.00	80.1%
3.	Blockage Removal	646,700.00	800,000.00	80.8%
4.	Sewage Disposal by Cesspit Emptiers at Sludge Ponds	3,270,000.00	4,080,000.00	80.1%
	<b>TOTAL</b>	<b>132,637,495.12</b>	<b>158,961,600.00</b>	<b>83.4%</b>

The decrease to the sewerage revenue collections due to reasons mentioned above.

## (ii) Sewerage expenditure 2004/2005

Table 16: Expenditure for 2004/2005

No.	Type of Description	Budgeted Expenditure 2004/2005	Actual Expenditure 2004/2005
1.	Sewers and Manhole	10,943,500.00	4,615,360.00
2.	Customer Survey	1,887,500.00	218,600.00
3.	Ponds Expenses	12,575,500.00	10,398,064.00
4.	Laboratory	2,959,000.00	0.00
	<b>TOTAL</b>	<b>28,365,500.00</b>	<b>15,232,024.00</b>

The actual expenditure is less than the budgeted one, but some of the expenses are in stocks, which are not reflected, in the actual expenditure.

## (b) Sewerage service coverage level.

The existing sewerage system is serving approximately 11.6% of the total Municipal population.

## (c) Effluent quality.

The average  $BOD_5$  measured was 393mg/l for influent and effluent was 79 mg/l. The bacteriological influent was  $16.7 \times 10^6$  count/100ml. and effluent was 30,000 count/100ml respectively. The acceptable Tanzanian standard is 30mg/l, therefore there is need for construction of additional maturation ponds which will enable farther treatment.

The Tanzania Standard for  $BOD_5$  effluent is 30mg/l, it is therefore important to increase more maturation ponds downstream to further polish the effluent to meet the standards. It is also now required to desludge the anaerobic pond since its volume has now been reduced to almost 40%. The quality of effluent is deteriorating as such indicates the immediate desludging of anaerobic pond and construction of additional maturation ponds..

## (d) Major activities done in 2004/ 2005

## (i) Sewers

## ➤ Sewer Cleaning

There were 2,766 cleaning occasions along the sewer system. There is a reduction of 19% of sewer cleaning compared to the previous year, this is because of replacement of sewers in some areas. The cleaned areas were Kilombero sewer, Levolosi, Somalia street, Soweto, Serengeti street, Unga Ltd., Naura street, Goliondoi street, Simion road, Makua street, Pangani street, Station street, Swahili street, Seventy seven street, Esso area, Factory area, Romboshine street, Makongoro street, Kaloleni area and Sinoni Lemara.

➤ **Blockage Removal**

There were **2,037-sewer** blockage removals along the sewer system, among them **129** were from private sewer laterals. There is a reduction of **47%** of sewer blockage removals compared to the previous year this resulted from replacement of sewer pipes by upsizing at Kilimbero and Stadium. Major areas where frequent blockages occurred and removed were Somalia street, Florida area, Makongoro street, Esso area, factory area, Maeda street, Uhidini street, Wasangu street, Annex area, Mount Meru Hospital, Soweto area, Pangani street, Makua street, Seventy seven sewer line, Naura street, Goliondoi street, Ngarenaro NHC, Bondeni, Msikiti street, Swahili street and Sinoni Lemara.

➤ **Repairs and Maintenance.**

- ❑ Upgrading the private sewer lateral located at Kati Makutano due to seriously damaged sewer pipes by replacing the damaged class “A” uPVC pipes with new ones of class “B” uPVC pipes dia.150mm, backfilling, compaction and manhole connections.
- ❑ Repairing manhole cover & frame surrounded concrete crushed by motor vehicles at Naura street, Lindi street and Factory road namely AC-1, B-12 & R-8 respectively.
- ❑ Construction of Kambi ya Fisi sewer extension of the total length 295m with 250mm diameter of uPVC pipes class “B” and “C” there are nine manholes. The total material cost was Tsh. 20,231,000.00 and total labor costs was Tshs.6, 526,782.25 where TANROADS and Matrix Construction Services were paid labor charges of Tsh. 3,020,282.25 and Tsh. 3,506,500.00 respectively. Therefore the total project cost was Tsh. 26,757,782.25.
- ❑ Minor repairs of heavy duty C.I manhole cover & frame along Sokoine Road and Sinoni Daraja II namely **BH<sub>4</sub>** & **A<sub>17</sub>** respectively also minor repair between B.O.T flats at Kaloleni near Mrina bar, manhole reconstruction along Themis river and repairing manhole cover & frame at Kaloleni & Lemara namely **BCA-2/1** & **P-12** respectively
- ❑ Major repair at Naura (Naura crossing between **A<sub>7</sub>** and **C<sub>5</sub>**) where the sewer pipe crossing Naura River was broken by flood due to heavy rain. Replacement of the broken Steel pipe with D.I pipe  $\phi$  250 (10”) - 2 ½ pcs and installation of gabions & filling with stones 6m apart on both sides were done. The total amount of **Tsh.357,000.00** was spent on purchase & payment of various materials and casual labor.
- ❑ Repair of manhole PM-11 at Lemara area, manhole cover and frame was displaced therefore, masonry erected/reinstated the manhole frame & cover by using two bags of Portland Cement, coarse aggregate and Sand.
- ❑ Sewer upsizing done at Stadium area where the sewer lateral was frequently overflowing sewage due to existing under capacity uPVC pipes class “A”  $\Phi$  100mm, which was replaced by stronger uPVC pipes class “B”  $\Phi$  150mm and one new manhole was constructed to permit diversion. The total length of pipes replaced was 108m and the amount spent for this work was Tshs.**1, 442,327.00**
- ❑ Construction of a reinforced concrete top slab for a manhole positioned between A-2 & A-2/1 located along Market Street that had been badly damaged due to heavy vehicles.

- Sewer upsizing done at Kilombero area where the sewer lateral was frequently overflowing sewage due to existing under capacity uPVC pipes class “A” Φ 100mm, which was replaced by stronger & larger uPVC pipes class “B” Φ 150mm and three new chambers were constructed to permit diversion. The total cost was Tsh. **1,565,168.00**.
- Two manhole covers were stolen, one along the old sewer main line in April 2005 namely PM-3 and the second along the new sewer main namely N-1 located at Lemara and Sinoni Daraja Mbili respectively.

**(ii) Waste stabilization ponds.**

➤ **General activities.**

The main activities done at the WSP was to remove debris from the screens (Grit chamber), recording the physical appearance of incoming sewage for monitoring the Industrial discharge, grass cutting, sewage quality monitoring, burning dry debris in the incinerator and recording the sewage influent & effluent at ponds. During this period an average flow of **54.6 l/s.** (4,717m<sup>3</sup>/day) was recorded.

There were casual labors for grass cutting, reinstating walk paths, cleaning storm water drains, cleaning disposal bay desludging of one of the sludge ponds and trimming bogavillian fence.

➤ **Sludge Ponds.**

The sludge ponds received **1,635** sewage trips as disposed by sewage cesspit emptier. Currently one pond is in operation and the other one is drying out.

**(e) Sewerage service summary.**

**Table 17: Customer Category**

No.	Category	Domestic	Institutional	Commercial	Industrial	Total
1.	Number of connections	2,094	96	423	108	<b>2,721</b>
2.	Design population	3,020	160	540	140	<b>3,860</b>
3.	Population served	15,740	3,800	4,420	3,800	<b>27,760</b>
4.	Arreal Coverage (%)	9.4	0.4	1.1	0.7	<b>11.6</b>
5.	Bills Distributed	2,094	96	423	108	<b>2,721</b>
6.	Bills paid	-	-	-	-	-
7.	Revenue Collection	-	-	-	-	<b>127,699,745.12</b>

**(f) Waste Water Quality.**

**Maintenance**

- (i.) Type of treatment - Natural treatment (Waste Stabilization Ponds)
- (ii.) Influent & Effluent quality this year was **393mg/l.** & **79mg/l.**
- (g) Total number of pumps available NIL, Number of operational sewerage pumps NIL.
- (h) Total length of sewer 35.4 km.; inspected 30.5km.; and flushed NIL km.

- (i) Number of Sewer blockages attended 2,037.  
(j) Number of complaints received on sewerage issues 100.

**Table 18: Average Sewage Effluent Quality results at Waste Stabilization Ponds – Lemara for 2004/2005**

No.	PARAMETERS	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	S <sub>6</sub>	S <sub>7</sub>	S <sub>8</sub>	S <sub>9</sub>	TANZANIA STANDARD
1	Total Suspended Solids (mg/l)	298.5	171.5	111.5	86.75	79.5	<b>68.75</b>	203.5	50	87	<b>25.4</b> Not to cause formation of scum in receiving river
2	Temperature °C	23.8	24.1	24.4	24.6	24.5	<b>25.8</b>	24.9	23.7	24.8	Not exceeding 5°C of receiving water
3	Colour (mg.Pt/l)	926.8	774.8	810.3	644.3	617.5	<b>346.8</b>	2071.3	84.8	274.0	Not to cause any natural color change of receiving river
4	Settable matter (mg/l)	9.675									
5	pH	7.2	7.0	7.5	7.3	7.7	<b>7.0</b>	7.8	7.4	7.2	<b>6.5 – 8.5</b>
6	Dissolved Oxygen (mg/l)										
7	Electric Conductivity (µS/cm.)	1159	1302	1225	1204	1220	<b>1151</b>	2838	526	998	
8	Chromium (mg/l)	0.175	0.138	0.073	0.043	0.030	<b>0.040</b>	0.275	0.058	0.030	<b>0.1</b>
9	BOD <sub>5</sub> (mg/l)	393	218	159	131	113	<b>79</b>	659	101	87	<b>30</b>
10	Phosphate (mg/l)	18.7	17.3	12.5	10.9	8.0	<b>8.2</b>	130.4	2.4	5.0	<b>6</b>
11	Nitrate (mg/l)	22.4	17.5	16.6	16.2	16.3	<b>9.6</b>	29.4	10.0	17.1	<b>50</b>
12	Sulphide (mg/l)	1.44	0.17	0.47	0.41	0.13	<b>0.04</b>	1.27	0.05	0.04	<b>0.5</b>
13	Faecal Coliform - count/100ml (10 <sup>6</sup> )	16.66	3.26	0.61	0.41	0.10	<b>0.03</b>	25.73	0.07	0.08	<b>5,000</b>

**NOTE:**S<sub>1</sub> - Inlet of Pond "A"S<sub>7</sub> – Outlet from Sludge PondsS<sub>2</sub> - Outlet from Pond "A"S<sub>8</sub> – Upstream Themti RiverS<sub>3</sub> – Outlet from Pond "B"S<sub>9</sub> – Confluence of Themti River & Effluent from pond "E"S<sub>4</sub> – Outlet from Pond "C"S<sub>5</sub> – Outlet from Pond "D"S<sub>6</sub> – Outlet from Pond "E"**2.9 Billing and Customer Database Section**

From 1<sup>st</sup> July 2004 to 30<sup>th</sup> of June 2005, the Billing and Customer Database Section has performed the following activities:

- Inputting of the Customer Water Meter readings in the Computer
- Preparing, processing and Printing the Water and Sewer Bills of the Customers.
- Adjustments of Bills where necessary.
- Database Cleaning and Updates
- Downloading & Uploading meter readings to/from Data Loggers.
- Zones and Routes re-arrangement and updating.
- Troubleshooting and Expanding the LAN.
- Setting a trial on Progressive tariffs on monthly basis before commencement.
- Servicing of all the AUWSA computers in the LAN

(i) **Inputting of Customer Water Meter Readings.**

Meter readings data entry in the Computer starts from earliest date of the Month, ending at the end or beginning of the next billing Month. Bills were processed at the end of the billing Month or beginning of the next billing Month. Printed and sorted bills were sent to the Postal office but big Customers and Commercial bills are sent by hand delivery.

An average of **14,741** accounts were billed monthly, and the meter charging statistics are as follows: 15 m3 of consumptions refers to minimum consumption.

**Table 19: Meter Reading Statistics**

Month	Metered A/Cs charged on Min	Metered A/Cs charged on Actual	A/cs charged on Ave. Min	A/cs charged on Ave. Actual	Total A/cs Billed	Water Consumption
July, 2004	6,422	6580	667	326	13,995	524,364.19
Aug, 2004	6,025	7,050	615	242	13,932	574,754.03
Sep, 2004	6,760	6,470	705	234	14,169	535,136.60
Oct, 2004	6,932	6,410	675	251	14,268	506,535.77
Nov, 2004	7,407	6,012	684	223	14,326	487,975.04
Dec, 2004	7,076	6,415	627	185	14,303	632,806.24
Jan, 2005	6,391	7,100	670	209	14,370	541,250.67
Feb, 2005	7,048	6,348	697	216	14,309	465,088.41
Mar, 2005	7,338	6,139	779	218	14,474	475,765.00
April, 2005	6,822	6,848	716	204	14,590	482,597.95
May, 2005	7,276	6,639	677	196	14,788	489,349.58
June, 2005	6,994	7,013	658	181	14,846	550,342.48
<b>Total</b>						<b>6,265,965.96</b>
<b>Average/Month</b>	<b>6,874</b>	<b>6,585</b>	<b>681</b>	<b>224</b>	<b>14,364</b>	<b>522,163.83</b>

**(a) For Minimum:**

Most of the accounts charged minimum are those with water Consumption less than 14.5 m3 before September billing and less than 15 m3 from September billing on wards. Other accounts billed with no readings supplied by Meter readers were being charged Minimum.

**(b) For Average Minimum:**

Most of accounts charged on average minimum are those whose Meters were not read due to the following reasons as reported/remarked on the reading sheet by the Meter readers:

- A number of Customers are using Boreholes
- Stuck Meters
- Gate Closed at the time of taking the meter readings

## (ii) Billing statistics for Water

## (a) Billing statistics For Water only

Month	No. Of Accts	Water Charges	Cons (m <sup>3</sup> )
July, 2004	13,995	178,272,818.66	524,364.18
Aug, 2004	13,932	190,830,069.84	574,754.04
Sep, 2004	14,169	204,320,935.91	535,136.60
Oct, 2004	14,268	196,335,324.99	506,535.78
Nov, 2004	14,326	193,175,871.49	487,975.05
Dec, 2004	14303	227,792,848.09	632,806.24
Jan, 2005	14,370	201,462,511.73	541,250.67
Feb, 2005	14,309	171,796,605.32	465,088.41
Mar, 2004	14,474	176,208,505.71	475,765.00
April, 2005	14,590	176,176,240.86	482,597.94
May, 2005	14,788	179,160,473.54	489,349.57
June, 2005	14,846	198,341,400.14	550,342.47
<b>TOTAL</b>	<b>172,370</b>	<b>2,293,873,606.28</b>	<b>6,265,965.95</b>
<b>AVERAGE TOTAL</b>	<b>14,364</b>	<b>191,156,133.86</b>	<b>522,163.83</b>

## (b) Billing Statistics for Sewer only

Month	No. Of Accts	Sewer Charges	Produced (m <sup>3</sup> )
July, 2004	2,314	8,738,361.01	70,467.02
Aug, 2004	2,262	8,453,903.86	68,731.82
Sep, 2004	2,282	8,857,015.15	71,480.09
Oct, 2004	2275	8,298,941.06	65,103.59
Nov, 2004	2,313	8,189,857.76	64,201.10
Dec, 2004	2312	10,198,313.61	80,843.14
Jan, 2005	2,342	13,409,809.73	103,285.11
Feb, 2005	2,340	12,514,793.61	94,450.96
Mar, 2004	2,376	12,161,614.72	91,826.50
April, 2005	2,375	12,845,613.08	99,854.30
May, 2005	2,380	12,105,478.64	91,814.99
June, 2005	2,377	13,556,772	106,311
<b>TOTAL</b>	<b>27,948</b>	<b>129,330,474.23</b>	<b>1,008,369.62</b>
<b>AVERAGE TOTAL</b>	<b>2,329</b>	<b>10,777,539.52</b>	<b>84,030.80</b>

(c) **Meter rental Charges only**

Month	Meter Rental charge	No. Of Accounts
July, 2004	Included in Water charge	
Aug, 2004	Included in Water charge	
Sep, 2004	Included in Water charge	
Oct, 2004	Included in Water charge	
Nov, 2004	Included in Water charge	
Dec, 2004	Included in Water charge	
Jan, 2005	Included in Water charge	
Feb, 2005	Included in Water charge	
Mar, 2005	8,966,700.00	14,474
April, 2005	9,033,200.00	14,590
May, 2005	9,157,000.00	14,788
June, 2005	9,188,700.00	14,844
<b>TOTAL</b>	<b>36,345,600.00</b>	<b>58,696</b>
<b>AVERAGE TOTAL</b>	<b>9,086,400.00</b>	<b>14,674</b>

**Reasons for Adjustments:**

- Final Bills for Customers who stop service
- Meter readings were wrongly entered in the system by data entry clerk.
- Transfer of payments for Customers who wrongly paid bills to another customers.
- Data wrongly entered to the system when starting the system introduction at the beginning.

**(iii) Database Cleaning and Updates**

The Database Section continuously sorting out details for Customers, who have never paid their bills since they were connected to AUWSA services. A list is continuously given to the Credit Control Section for action of disconnection. The accuracy of each customer records is being checked and updated when necessary and amending errors if any.

**(iv) Database status up to 30<sup>th</sup> June 2005**

**(a) The followings are a database state for live customers with their Water bill Arrears up to 30th June 2005.**

CATEGORY	A/C	ARREARS BEFORE BILLING	BALANCE DUE AS AT 30 <sup>TH</sup> JUNE 2005
Bottling	3	1,842,864.11	2,240,964.11
Commercial	982	56,221,035.02	105,941,277.55
Domestic	15,863	514,270,726.33	703,310,349.44
Industrial	266	33,991,276.08	78,104,025.57
Institution	309	93,925,704.82	63,972,467.54
Kiosk	86	8,090,592.18	9,235,254.40
<b>TOTAL</b>	<b>17,509</b>	<b>708,342,198.54</b>	<b>962,804,338.61</b>

(b) **Governmental/Institutional Debts**

CATEGORY	ACCOUNTS	TOTAL BALANCE DUE (Before June 2005 Billing)	TOTAL BALANCE DUE (After June 2005 Billing)
Commercial	2	675,611.24	854,096.24
Institution	21	4,549,858.68	6,196,883.68
Domestic	89	40,977,192.45	46,857,418.62
<b>TOTAL</b>	<b>112</b>	<b>46,202,662.37</b>	<b>53,908,398.54</b>

(c) **Moribund Database Status up to 30/06/2005.**

CATEGORY	No. ACCOUNTS	DUE
Domestics	195	60,577,210.69
Commercial	2,478	517,475,112.44
Industrial	49	18,567,572.50
Parastatal	33	4,097,008.84
Kiosk	10	1,777,299.22
<b>TOTAL</b>	<b>2,765</b>	<b>602,494,203.69</b>

The total Balance in the Moribund Database up to 30/06/2005 is **Tsh. 602,494,203.69**. Physical inspection on site is still going on by the Commercial Department to check if the responsible Accounts Owners still exist, then a list of existing Customers from the Moribund Database as per Physical Inspection report will be prepared for submission to the Debts Collectors.

(v) **Installation and Training on the Use of Data Loggers.**

The Data Loggers implementation was completed. The readings from Data loggers are still running parallel with the Manual Reading Sheets. The customization on the data loggers software will continue until we are satisfied with the Mock Run.

(vi) **Strategic Plan Follow up**

(a) **Success on the following Targets**

- To increase AUWSA's Billing efficiency: Zones and Routes restructuring are in place.
- Data Capture Accuracy: meter readers know their metered Customers & training of meter readers on Data loggers is in final stage.
- Alternative means of bills delivery: Big customer bills are sent by hand delivery using staff in the Credit Control Section and some meter readers. The rest are sent to the postal office. We have now achieved to deliver the bills in the first week of each month. AUWSA Dynamic Website: Website designer- Data Vision International (T) Ltd has signed a contract and the designing is at advanced stages.
- The Contractor Oikos Enterprises Ltd is designing Debts Age Analysis Module in the current System – "The Perfect bill". The design is on progress.

**(b) Pending targets.**

- Training staffs on LAN application

**2.10 Public Relations Unit**

During the financial year 2004/2005, The Public Relations Unit performed a variety of activities with the objective of enhancing AUWSA's Public image.

➤ **INFORMATION, EDUCATION AND COMMUNICATION (IEC) PROGRAMME**

**Activity No 1.1: - Information dissemination through notification campaigns.**

During this period the Unit disseminated various information to customers and stakeholders through notification campaigns carried out using Public Address System. The information disseminated was based on the following key subjects: -

- **Disconnection of Water and Sewerage services** –This Information was targeted to customers with outstanding water and sewerage bills in all categories of Domestic, Institutional, Commercial, Industrial, Kiosks and Bottling.

- **Water Shortage and adherence to economic use of safe water**

The above Information was disseminated to the General Public especially in the areas of Sombetini, Elerai, Majengo and Olmatejoo during the months of **August and September '04**. The objective of information was to appeal to the general public to practice economic use of safe water and take precautions against use of unsafe water from hand- dug wells in order to avoid outbreak of water-borne diseases.

- **Water meter theft**

The above Information was disseminated to the general public especially to customers within Tasso, Sokon I, Njiro, and Soweto Kibla during the period of **August**. The objective of this exercise was to inform the respective customers on water meter thefts and related vandalism and sensitize them on how best they can safeguard their water meters and where necessary to report such cases to law enforcement authorities for legal measures in collaboration with AUWSA.

- **Illegal connections.**

The above Information was disseminated to the general public on routine basis through out the financial year. The objective of the exercise was inform the general public to refrain from making all forms of illegal water connections such as meter by-passes, vandalism etc. Moreover the public was cordially requested to cooperate with AUWSA to combat such unbecoming practices.

- **Debt collection exercise.**

AUWSA has decided to outsource debt collection exercise to debt collection professional bodies during this financial year in order to accelerate debt recovery from bad debtors. Two debt collection firms have been engaged to undertake this exercise. These are: -

- Majembe Auction Ltd of Dar es Salaam.

➤ J.J.Coopers Ltd of Arusha.

The number of campaigns performed in each month were as follows:-

1. July	3
2. August	3
3. September	3
4. October	3
5. November	3
6. December	3
7. January	3
8. February	3
9. March	3
10. April	3
11. May	3
12. June	<u>3</u>
<b>Total =</b>	<b>36</b>

**Achievements attained: -**

Through these campaigns, the following achievements have been realized so far: -

- There is positive response from the public as many customers now settle their monthly bills on time.
- There was a good understanding on the reasons behind water shortage during the mentioned period. Many customers gave their ideas and comments on how best AUWSA can exercise rationing to serve all City residents on fair basis.
- The response against water meter theft was good. Customers responded by installing chamber boxes to safeguard their water meters. Furthermore, many customers reported the incidents to police posts and there have been a general decline of reported cases since then.
- A good number of water theft reports were received from good Samaritans; these reports were received from all corners of the City. Areas from where reports were most received are Olorien, Kimandolu, Njiro, Ngarenaro and Sombetini.
- AUWSA got a good support from the police force who cooperated with the office in handling the reported cases.

**Setbacks**

- Some customers have not yet cultivated the attitude of paying their water bills on time. Most of those who respond settle their bills after being disconnected or after having huge amount of outstanding water and sewerage bills.
- There are still reports of water theft in some parts of the city.

**Comments**

- There is a need of introducing rewards to customers who pay their bills promptly, e.g. by introducing certain rewards in a form of kind. This may inspire other customers to start doing the same.

**Activity No 1.2: - Information dissemination regarding new water and sewerage tariff.**

AUWSA introduced new water and sewerage tariff with effect from September 2004.

The Unit sensitized customers and stakeholders on the importance and necessity of this new water and sewerage tariff. The information was disseminated through provision of handouts, short messages printed in the customers' monthly bills and through seminars held at Ward level during the identification of urban poor household exercise.

**Achievements:-**

The public was quite positive on the tariff changes, most of them still perceive the rates to be quite reasonable and thus affordable.. However they argued the Authority to strive to improve the water supply situation in some parts of the City where water problems still persist like Majengo/Mbauda, Sombetini, Sakina and some parts of Njiro.

**Activity No 1.3:- Information dissemination through issuance of short messages to customers.**

Since January 2005 the Unit started to sensitize customers on the reasons behind disconnection exercise and the need for prompt response by issuing disconnection message notes on their monthly bills.

The information was disseminated to customers with the following problems:-

- Outstanding water bills,
- Leaking pipes,
- Defective water meters,
- Customers with inaccurate billing details /records.

The forms /notes were distributed to respective customers through disconnection and leakage teams.

**Achievements Details:-**

The general response towards this exercise was as follows: -

Type of Problem.	No. of Customers issued with forms.		No. of customer who responded.	
	January –March.	April to June.	January to March.	April to June
Leakages.	10	20	8	13
Outstanding water bills.	30	61	27	37
Broken/unread water meter.	-	3	-	3
Inaccurate customer particulars.	-	-	-	-
<b>Total.</b>	<b>40</b>	<b>84</b>	<b>35</b>	<b>53</b>

**Remarks.**

- Generally the exercise was successful as the number of customers who responded is **88** against the total number of customers who were issued with the respective forms, which is **128**.
- The Message in these forms was improved to guarantee feedback from the customers.
- The percentage of feedback forms against issued forms is fair (about 68.8%).
- The Unit has therefore insisted the teams to remind customers to bring the forms in order to properly evaluate the level of response from customers through this exercise.

**Activity No 1.4: - Conducting public awareness, education, seminars and study visits to internal and external customers.**

The Unit conducted 8 out of 10 planned seminars including study visits during the reporting period as follows:-

**Sub-activity No. 1.4.1:- Awareness creation and education seminar conducted at Uhuru Primary School**

The Unit conducted this seminar at Uhuru primary school on **11<sup>th</sup> September 2004**. The objective of this seminar was to sensitize the respective community about AUWSA, its policies, activities and services provided, and their responsibilities as water customers' especially on the economic use of safe water and prompt payment of their water bills.

The participants of this seminar were school committee members who were thirteen.

**Outcome and achievement of this seminar.**

The seminar drew the interest of the participants; there was a good understanding of what AUWSA is, as well as its policies services and activities.

The committee agreed to cooperate with AUWSA in reporting water theft cases,, meter vandalism and other malpractices. They also promise to continue paying school water and sewerage bills on time and to adhere to economic use of clean and safe water.

The outcome of this seminar was seen when some committee members reported two cases of water theft to the office.

Todate, the school is one of the leading Institutions for prompt payment of water bills. Moreover the school has started to practice economic use of water by using safe water for drinking purposes only. For activities like irrigation of school gardens as well as cleaning of classrooms they use river water from a nearby river.

**Comment**

- Such seminars should be accompanied by site visits so that participants can physically see efforts done by AUWSA in improving water and sewerage services in the City of Arusha.

**Sub-activity no. 1.4.2: Education and Training seminar conducted to Water Kiosks' Operators and selected customers from ten Wards of Arusha City..**

The Unit conducted the above seminar to Water Kiosks' Operators and selected customers from ten wards of Arusha City in **July and August 2004**. The objective of this seminar was to educate and train participants on efficient ways of providing water service to the community, specifically free water service to the identified urban poor households.

**Sub-activity No .1.4.3: Maji Week Seminar at Daraja II Ward.**

The Unit organized and conducted Urban poor seminar at Daraja Mbili Ward on **21<sup>st</sup> March 2005**, which was conducted as part of Maji week commemorating for 2005 with the objective of evaluating water services provided to the ten (10) urban poor households within this ward.

**Achievements**

- The participants of this seminar, which included the urban poor themselves, expressed their appreciation to AUWSA for providing them with free water service as per Government directive.
- They suggested that AUWSA to continue to co-operate with the Ward Executive Officers in order to make sure that this exercise is sustainable.

**Sub-activity No.1.4.4:- Maji Week Seminar held for sewerage customers.**

The Unit organized and facilitated an education seminar for sewerage customers conducted by Sewerage section with the objective of informing and educating the participants on the importance of sewerage services to Kambi ya Fisi community. The seminar was conducted on 22<sup>nd</sup> March 2005 as part of Maji Week commemoration 2005 climax.

**Achievement.**

The participants of this seminar appreciated for the efforts done by AUWSA on extending sewerage service to promote public health for Arusha residents. The participants agreed to join hands in order to share part of the construction costs.

**Sub-activity No.1.4.5:- Water users education seminar in Kimandolu Ward.**

The Unit organized and conducted water users seminar in Kimandolu Ward on **28/04/2005** with the objective of educating water users' representatives at ward level on water policy, new water connection procedures and the need to adhere to economic use of safe water.

**Achievement**

Participants generally understood the NAWAPO-(National Water Policy) context and agreed follow the required procedures as per policy.15 people applied for new water connections immediately after the seminar. This is a clear indicator of their good understanding of the seminar materials.

**Sub-activity No. 1.4.6:- Water users education seminar in Baraa Ward.**

The Unit organized and conducted water users seminar at Baraa on **17/05/2005** with the objective of creating awareness to ward residents on the effects of water leakages, which is highly remarkable in this Ward. It is

believed that most of these leakages are due to vandalism by some of the residents who do so in order to get water for their livestock.

**Achievement.**

Participants agreed in principle to combat this practice and proposed stern measure to be taken against any defaulter. Conclusively, the seminar participants came up with the following resolutions:-

- To promptly repair or report all spotted leakages within their respective areas.
- To avoid grazing their livestock where there is water supply infrastructures.
- Ward leadership to strictly adhere to laws and by- laws, which forbid free grazing of cattle.

**Sub-activity No. 1.4.7: - Awareness and Education seminar on proper use of sewer chambers at Mount Meru hospital**

The Unit organized and conducted the above seminar in collaboration with Sewerage section to Mount Meru Hospital staff on **14,16-17/06/2005** with the objective of educating the hospital community on proper use of sewer chambers, to avoid blockages, which frequently occur at the hospital sewer lines and pose health hazards to neighboring community along AICC and Pemba road.

**Achievements attained:-**

Participants were made aware of some harmful practices that frequently cause blockages in the area, hence came up with the following resolutions:-

- Respective seminars should be conducted frequently to all critical areas.
- Hospital Management shall be advised to allocate funds to replace old sewer pipes or sewer pipes with small diameters at the hospital premises.
- Dustbins should be used properly; each ward shall have a poster, which that clearly demonstrates effects of throwing solid wastes to the sewer chambers.
- AUWSA and Mount Meru hospital management should continue to work closely in order to alleviate this problem completely.
- The Unit shall monitor and evaluate implementation of these resolutions and community behavioural change respectively.

**Sub-activity No.1.4.8:- Study -visit done to AUWSA by Themis and Bargish-uwa Primary schools**

The PR Unit arranged study tours for Themis and Bargish-uwa primary schools on **4<sup>th</sup> Sept and 18<sup>th</sup> Sept 2004** respectively in response to the schools' leadership requests lodged to AUWSA Management. The objective of these Study tours was to enable the school children to learn about AUWSA services especially on water production, treatment, and distribution of service and wastewater collection and its disposal. AUWSA Management believed that these Children could act as good medium of information dissemination to their homes/parents.

**Achievement & Setbacks.**

The school pupils gained a lot of experience and understanding about AUWSA service on water production, this was revealed through the numerous logical questions raised by the pupils during the study tour.

Them primary school was to hire local transportation to ferry the pupils to and from the study tour areas. This caused a delay in starting the program and also caused a rush in the whole program as such, as such there was no room for sufficient information to be provided to the pupils.

**Comments**

- The study –visits are useful tools of educating the community, therefore this should be made frequently to enable other schools, teachers, customers and stakeholders to have the opportunity to visit and learn more about AUWSA.
- Such visits should be well arranged and transportation costs be accommodated within AUWSA 's PR annual budgets in order to successfully achieve the desired objective.
- Follow up visits need to be done in order to assess the effectiveness and impact of these study tours.

**Sub-activity. No.1.4.9:- Maji Week seminar conducted to AUWSA internal customers.**

The Unit organized and facilitated an in –house seminar on efficient service delivery to internal and external customers The seminar was conducted on **19<sup>th</sup> March 2005** as part of 2005 Maji Week commemorations.

**Sub-activity No.1.4.10:- HIV/AIDS seminar conducted to AUWSA Internal customers.**

The Unit organized the above seminar, which was conducted to AUWSA's TUICO Council and sectional supervisors on **11/06/2005**. The aim of this seminar was to continually sensitize AUWSA staff on HIV/AIDS risks at working places.

**Achievement.**

The group was highly sensitised on the effects of the scourge and elected representatives who were supposed to join with other representatives to be selected from the Management team and together they shall form a committee to spearhead the establishment of HIV/AIDS policy in the Authority.

**Remarks.**

The PR Unit target was to conduct a total of ten (10) seminars including two study visits as follows :

Study Tours by other institutions to AUWSA – 2

Stakeholders seminars -5 (external) and

In –house seminars - (3) (internal).

**Setback**

Some stakeholders could not allocate time for seminars.

On the other hand, the HIV/AIDS seminar could not be conducted to the Management team due to time constraints.

**The Way forward.**

- The Unit shall continue to convince the stakeholders Management so that the seminars can be conducted to their communities.
- The HIV /AIDS awareness seminar to AUWSA Management team is scheduled to be conducted within the next financial year i.e. 2005/2006.

**Activity No. 1.5:- Participation in WDC meeting at Levolosi Ward.**

The Unit fully participated in Levolosi Ward Development Committee (WDC) Meeting on **16<sup>th</sup> February 2005**.The main agenda was to discuss on the right procedures of getting water kiosk operators for the area including their job descriptions.

**Achievement**

Water kiosks operators are now in place for the area and the water kiosks are operated effectively including prompt payment of water kiosks monthly water bills as required.

➤ **BUSINESS PROMOTION AND PUBLICITY PROGRAMME.**

During the reporting period, the PR Unit performed various activities under this heading with the objective of enhancing AUWSA public image.

The activities performed under this program were as follows:

**2:1 Issuing of various adverts, in the Print and Electronic media.**

The following adverts were issued to the Public in the form of messages/notification and coverage, through print and electronic media:

**2:1:1a Various casual announcements and Adverts**

Water meter-theft	Issued in Radio One - five (5) slots
50% reduction in Sewer connection charges	Issued in Mwanachi Newspaper one (1) advert
Universal metering	Issued in Radio One- five (5) slots
40 <sup>th</sup> TPDF Anniversary	Issued <b>twice</b> in the Express weekly newspaper, i.e one (1) advert in each week
5 <sup>th</sup> Anniversary of the death of Father of Nation The Late Mwl J.K Nyerere	One (1) advert issued in the Daily News

**Achievements:-**

There was positive response from the above Messages /Notifications as follows:-

- Samaritans continue to report water- theft cases at the office.
- The number of unmetered customers declined due to the fact that more customers responded positively by requesting for installation of water meters to their premises.
- New sewer connections increased due to these campaigns.

**2:1:1b. Tender and Vacancies.**

<b>Invitation for Tender</b>	Issued in The Guardian, Daily News, and Arusha Times.
<b>Vacancies</b> - <b>Assistant Internal Auditor- 1post</b> - <b>Receiving Cashiers- 2 posts</b>	<ul style="list-style-type: none"> <li>• Issued in Daily News and The Guardian One (1)advert in each paper.</li> <li>• Issued in Daily News and The Guardian</li> </ul>
<b>Universal Metering</b>	Issued in Majira newspaper of January 10 <sup>th</sup> 2005(half page), Nipashe newspaper January 13 <sup>th</sup> , 2005 (half page).
<b>Water shortage</b>	Issued in Daily news on 13 <sup>th</sup> January 2005(quarter page), Tanzania Daima on 17 <sup>th</sup> January,2005
<b>Tender (Debt collection services)</b>	Issued in The Guardian Newspaper on 16 <sup>th</sup> Febr.2005 (half page), Daily news on 15 <sup>th</sup> Feb. 2005 (half page), Nipashe on 17 <sup>th</sup> Febr.2005 (Full page) Arusha Times on 19thFebr.2005(full page)
Municipal Director officiated the inauguration of the bus stand shelter at Ngulelo area on 20 <sup>th</sup> March.2005 during Maji Week commemoration.	One (1) advert in 4 newspapers

**Achievement: -**

There was positive response from the above as follows:

- Bidders applied for respective tenders, whereby those who qualified were awarded the tenders as per PPA-Public Procurement Act.
- Interested applicants applied for the above posts whereby those who qualified through the various interviews were offered to fill the respective posts as per recruitment procedures.

**2:1:2 Publications/ Editorials in Newspapers.**

- 'Water shortage in Arusha Municipality'- covered in the Arusha Times newspaper.
- 'Progress on Development of new water source from Nduruma river ' – report covered by Radio One (Nipashe programme).
- 'Preparation and payment of water bills through new Customer Database & Billing software' – Feature/Editorial article issued by Mwananchi Newspaper.

**Remarks:-**

Respective media issued adverts and reports on time. This has brought a good response and understanding to the target group (customers/the public).

**2:1:2a. Coverage on Nduruma water project.**

The bellow mentioned media, covered the progress and substantial handing over of Nduruma gravity water project to AUWSA by the contractor Oriental Construction Company Ltd on 11th January. 2005.

- ITV/Radio one
- RTD
- TVT

**2:1:2b. Coverage on Sewerage services.**

The Unit in conjunction with the Sewerage section organized a face to face interview with various customers who gave their opinions and comments about sewerage services provided by AUWSA. The interview was conducted by ITV and Radio One Station which also aired the coverage on **15 February 2005.**

**2:1:2c. Maji Week 2005 coverage**

The unit prepared and issue the coverage on Maji Week on 16-22 March.2005 to the below mentioned Print and Electronic media with the objective of sending message to AUWSA customers, stakeholders and the general public as a whole about Maji Week whose theme was " WATER FOR LIFE".

The electronic media which covered the event were:-

- ITV on 20<sup>th</sup> March 2005.
- TVT on 20<sup>th</sup> March 2005.
- Radio Free Africa on 20<sup>th</sup> March 2005.
- Radio One on 20<sup>th</sup> March, 2005

The following print media also covered the event:

Water supply for human well-being and sustainable Development in Arusha Municipality’.	Issued in Arusha times on 19 <sup>th</sup> - 25 <sup>th</sup> March,2005
Water service for the Urban poor in Arusha Municipality	Issued in Nipashe & Sunday Newspaper On 20 <sup>th</sup> march,2005
<b>Water for Life</b> slogans	Issued in Sunday Observer and Mwananchi News paper on 20 <sup>th</sup> march,2005.

**Achievements:-**

Respective media adequately covered the events. This brought a good impact and understanding to the target areas and the public in general.

**2:1:3. Casual announcement on debt collection exercise.**

The Unit prepared and issued announcements, which were aired in five (5) slots over Radio One on 23<sup>rd</sup> –27<sup>th</sup> April 2005. The announcements aimed at informing the customers with bad debts and outstanding water bills on debt collection exercise, which has been outsourced to private debt collection firms (J.J. Coopers and Majembe Auction Mart companies of Arusha and Dar es salaam respectively).

**Achievement.**

The respective media adequately aired the announcement. There was a very positive understanding and response by AUWSA customers and the public in general since many customers turned up and settled their outstanding bills. During that period the number of customers who responded to such exercise after getting notices from J.J.Coopers and Majembe Auction Mart increased.

**2:1:4. Issuing of Public Notice about Lost receipts.**

The Unit prepared and issued adverts through the below mentioned newspapers with the objective of notifying the General Public on Lost Revenue Receipts.

- Daily newspaper of April 26<sup>th</sup>2005 - one (1) advert.
- The Guardian news of April 30<sup>th</sup> 2005 - one (1) advert.
- Nipashe newspaper of April 30<sup>th</sup> 2005 -one (1) advert.

**2:1:5 Airing of various AUWSA messages/ adverts through sponsorship in local media sports programmes.**

During 18th /April – 29/May 2005, the Unit prepared and issued various messages to the Public through sponsoring Radio Five 5 FM in airing Vodacom Sports League matches played at Sheikh Amri Abeid Stadium in Arusha.

**Impact and achievement**

Through this method, messages have been disseminated widely to the Public hence positively understood and accepted by the audience (customers and stakeholders) most of them being sports fans who listen and /or turn up to watch the league matches at the stadium.

**Achievement Indicators**

The Unit recorded a number of reports and enquiries from the Public through mobile phone No. 0744 27 93 08 in the following messages:

- Water leakage 17 reports
- Water shortage 3 reports
- How to safeguard water meter to avoid theft 2 enquiries

Total = 22

**The Way Forward.**

The Unit is committed to continue issuing various messages by sponsoring the same programmes in the future.

**2:1:6 Coverage of Water meter theft by Radio One FM Stereo.**

Following water meter thefts that occurred at Tasso ground, the PR Unit released news, which were covered by the above media on 18<sup>th</sup>/ June 2005 with the aim of cautioning customers to safeguard their water meters and/or to report to nearby police stations in case such incidents occur. Through this coverage done by Radio One and Radio Five FM during the said period, no new theft cases have been reported to the office.

**2.2. Preparation, Printing and Distribution of AUWSA Promotional and educational literature**

**2.2.1. Season's cards, Calendars and Diaries.**

The Unit prepared layout design and messages for AUWSA's Season's cards and 2005 calendars, and supervised artwork and printing processes of the same, which was done by Colour Print (T) Ltd who were awarded the 2004/2005 tender for this item.

The total printed season's cards and calendars were 1000 and 2000 respectively. The Unit also distributed these items to internal and external customers as well as stakeholders.

**Achievement.**

The Authority has been receiving appreciation messages and comments from customers and stakeholders both internally and externally regarding the message and outlook of both, especially the calendars.

**Setback.**

Preparation of 2005 Diaries was done in time; however, there was a delay in processing artwork and printing since no bidder won the respective tender. This work was finally offered to Kenafric Diaries of Kenya on quotation basis. The items were delivered and distributed on the 1st week of February 2005 which under normal circumstances was already too late.

**2:2:2 Preparation and printing of leaflets and flyers.**

The Unit has printed an educational literature in the form of leaflets/flyers, which carry ten different messages. These are PR tools for informing and educating water users, customers and stakeholders during seminars, meetings and study visits as well as promotional literature during exhibition activities. The objective of such literature is to supplement IEC program and enhance positive understanding, response and feedback from the public.

These messages carry the following ten (10) key subjects:

- Furahia Huduma ya majisafi na salama inayotolewa na AUWSA.
- Elewa Utaratibu wa kuunganishwa katika huduma ya majisafi.
- Fahamu ukweli kuhusu Mita ya maji.
- Baadhi ya mambo yanayosababisha malipo makubwa ya Ankara za maji.
- Fahamu hasara za uvujaji wa maji.
- Epuka wizi wa huduma ya majisafi.
- Faidika na huduma muhimu ya uondoaji wa majitaka.
- Elewa Utaratibu wa kuunganishwa katika mtandao wa majitaka.
- Kwanini mteja hukatiwa huduma ya majisafi?.
- Fahamu Haki na Wajibu wako kuhusu huduma zitolewazo na AUWSA.

**Remarks: -**

The Unit printed nine (9) leaflets instead of ten. This is due to the importance of having water meters to be clearly understood by customers hence the respective water meter literature shall be printed in form of brochure instead of leaflet /flyer.

**2:3. Participation in May Day celebrations.**

The Unit facilitated the participation of AUWSA in the May Day celebrations on 1<sup>st</sup> May by conducting staff demonstrations, with slogans and messages in form of banners.

The objective of participation is to utilize this occasion as a forum for Public awareness campaign, so that the public could understand the role of AUWSA in the provision of water and sewerage services to Arusha City residents. and how this service contributes substantially in promoting social and economic development of the same.

**2.4. Participation in Environment Week Commemorations.**

During the first week of June 01-06/06/2005, the Unit participated, for the first time , in Environment Week commemoration by displaying various exhibitions of water and sewerage services facilities and materials with the aim of promoting, informing and educating customers, stakeholders and the General Public about how environmentally friendly services are provided by AUWSA.. These Exhibitions were displayed at Kijenge Round About area to observe World Environment Day Commemorated Worldwide on 05<sup>th</sup> June every year.

**Impact**

- Most customers understood the activities done by AUWSA, which they got from pamphlet, posters, and leaflets. This was manifested by the customers who turned to the customer care desk who were 8 from Kijenge 1 from Lemara and 1 from Moshono.

- It was revealed that some customers of Kijenge and Corridor area who get their water from Nduruma intake have been experiencing turbid water in their areas especially during heavy rains. This has posed health risks to the people living in these area.
- Exhibitions displayed in meter by-pass and illegal connections made our customers to understand the effects of dealing with middle-men instead of dealing with AUWSA offices straight on water and sewerage related issues.

**Recommendations**

- AUWSA should clean trunk mains from river sources in order to flush out turbid water after every heavy down pours.
- PR team shall devise appropriate means of sensitizing and educating customers and stakeholders on services provided by AUWSA, water tariff changes, water shortage as well as customers' rights and obligations required by them towards getting the service.
- AUWSA shall continue to participate in Environment week exhibitions and other exhibitions in future.

**3.0. CUSTOMER CARE / COMMUNITY SERVICE PROGRAMME**

During this period the Unit performed the following activities under the above-mentioned program.

**3:1 Receiving and Handling of Customers Action Requests**

Customers Action Requests (issues and complaints) were continuously being received and handled under the above-mentioned program. The major goal is to ensure that the Authority continually improves the standard of service delivered to the customers.

The total number of issues and complaints received and handled during that period were as follows:

S/no	Report	Total number from July - December 2004	Total number from January – June 2005
1.	Water –theft	153	96
2.	Sewer blockage	35	104
3.	Leakage	89	154
4.	Water shortage	135	154
5.	Billing error	132	165
6.	Average/Minimum charge	119	315
	<b>TOTAL</b>	<b>663</b>	<b>988</b>

**Achievement.**

The above issues were handled well and on case-to-case basis by respective sections. This was revealed from customers who recommended the way issues were being tackled especially by the Sewerage team, who are very prompt in solving sewer blockage problems whenever they occur.

However, since the objective is to effectively reduce the number of complaints as per Medium Term Strategic Plan and Client Service Charter, the following analysis shows what needs to be done: -

- **Water Theft.**

The problem of water theft has declined in the period of January –June '05 as compared to the period of July –December '04. This is because customers are more informed and have become aware of implications of this practice. Also the Authority through the Credit Control section is continuously making follow up to suspected illegal customers by using the Police Force.

- **Sewer blockages**

The problem has increased in the period of January –June '05 as compared to the period of July –December '04. This is mainly attributed to misuse of sewer chambers. The PR Unit in collaboration with Sewerage section shall continue to educate customers on proper use of these chambers.

- **Leakage**

The problem of leakages has increased in the period of January –June '05 as compared to the period of July –December '04. This problem was attributed by increase of water pressure in the pipes due to increase of water from various sources including the newly completed Nduruma river water source. This resulted into bursts of old and low quality pipes, which mostly are service lines. Continuous sensitisation continued to be done to customers and the public to take prompt action to repair the leakages of individual service lines or report it to the office for further actions.

- **Water Shortage**

The problem of water shortage has increased in the period of **January –June '05** as compared to the period of **July –December '04**. However the reported cases were more of individual than holistic this is because since availability of water during the mentioned period was better compared to the previous one.

- **Billing errors.**

The problem of billing errors has increased in the period of **January –June '05** as compared to the period of **July –December '04**. The Unit has advised respective section to enter required readings on daily basis and also the NWC team should make sure that Meter readers are made aware of any new customers on their sites /routes

- **Average/Minimum charges**

The problem of billing errors has increased in the period of **January –June '05** as compared to the period of **July –December '04**. There is a need for Meter- Readers and the Billing unit of verifying all customers' data and water bills before dispatching them to customers.

### **3.2. Community Services activities.**

#### **3.2.1. Maintenance and Upkeep of Mwenge Round About**

The Unit continuously supervised maintenance and upkeep of Mwenge Round About outsourced to private operators for the day to day upkeep since September 2004 through tendering. The major activity since that period to December 2005 was to uproot the Maasai grass and plant Kikuyu one, as well as daily cleanliness of the surrounding area.

Other activities done during the whole period were as follows: -

- Planting of new flowers.
- Watering grass and flowers.
- Edge trimming.
- Hoeing and racking
- General cleanliness including racking and hoeing.
- Electrification ( Four Security lights around the monument).

These activities are effectively performed under the supervision of the PR Unit.

Through this undertaking AUWSA image has been promoted.

#### **Setback.**

The efforts for up keeping Mwenge Round About garden are often being hampered by the presence of street children who frequently reside at the round about and pose threats to the garden attendants and passersby.

#### **Comment.**

There is a need of getting support and cooperation from District Commissioner's office to alleviate the setback.

#### **3.2.2. Up keep of Bus stand Shelters**

The Unit continued up keeping two Bus stand Shelters in Town. These are Kwa Ngulelo Bus stand which was inaugurated and handled over to the Arusha Municipal Council during Maji Week commemorations in March 2005 and Vifodi Bus stand which was inaugurated during AUWSA 5<sup>th</sup> Anniversary in May 2004. The objective is to continuously support community services, enhance community relations and maintain corporate reputation and identity.

The Unit has also prepared public messages to be laminated placed at the shelters. These messages are meant to enhance AUWSA's image and increase awareness of services provided as well as maintain communication with Arusha stakeholders.

The artwork and production of these messages have been commissioned to Media Works Co. Ltd of Arusha..

**3:3 Distribution of water coupons to the urban poor households.**

During that period the unit distributed water coupons to households identified as urban poor in nine 9 wards of Arusha Municipality. These coupons are provided to each family as per demand; this enables the family to get free water service from water operators at the public water points/water kiosks.

The Distributions of coupons were as follows:

<b>Status</b>	July –December 2004	January –June 2005
Actual no. of households served with coupons	64	61
Total no of identified urban poor households in the Municipality	64	64

**Remarks.**

- 3/64 urban poor have passed away hence existing households have remained 61.
- The exercise is going on well for the 50 urban poor families who are getting reliable water.
- The remaining eleven (11) households have the following problems:
  1. Six (6) household at Terrat ward and one (1) urban poor at Unga ltd area are not getting water since the service at those areas is still not reliable.
  2. One (1) household at Baraa has no access to AUWSA distribution network.
  3. One (1) urban poor at Sombetini and two (2) urban poor at Ngarenaro ward have shifted to other areas without notification.

**The Way forward.**

The exercise of identifying Urban poor in the Municipality is continuous as per Ministry's directives. Hence starting from August 2005 the Unit will conduct another research towards identifying new urban poor households after receiving such requests from Sombetini, Sokon I and Kaloleni Ward leaderships.

**4: PROTOCOL AFFAIRS AND RECEPTION PROGRAM.**

**4.1. Corporate affairs – Board meetings.**

During this period AUWSA Board meetings were held as follows:-

30 <sup>th</sup> September 2004	-	Full Board meeting
29 <sup>th</sup> December 2004	-	Full Board meeting
11 <sup>th</sup> March 2005	-	Full Board meeting
25 <sup>th</sup> March 2005	-	Full Board meeting
29 <sup>th</sup> April 2005	-	Full Board meeting
23 May 2005	-	Full Board meeting
29 <sup>th</sup> June, 2005	-	Full Board meeting
10/8/2004	-	Board Committee
06/10/2004	-	Board Committee
24/11/2004	-	Board Committee
10/1/2005	-	Board Committee
17/2/2005	-	Board Committee
13/5/2005	-	Board Committee
23/6 /2005	-	Board Committee

**4:2 Official Visits paid.**

During that period the office hosted **four (4)** official visits paid by the Managing Director of Mtwara UWSA on September 2004 and Nduruma water project paid by the Arusha RC, Arusha DC, Arumeru DC on 11<sup>th</sup> January 2005, KfW Mission in November, 2004 and Board Members and Chief Executive from Kenya Water Utilities.

**4:3 Field Trips/ Practical visits paid.**

During this period a total of **twelve (13)** field students from UDSM, UCLAS, CBE, IAA and CDTI training Institutions were received and orientated about AUWSA 's policy, services, activities, before the start of their field training. This has resulted into the Authority to continue receiving many applications from various training Institutions in the Country requesting their students to perform their practical training at AUWSA.

**4:4 Study visit to Tanga UWSA.**

During this period, AUWSA-PRO visited Tanga UWSA on 16-29 February 2005 in order to get experience on preparation on production of video documentary as part of preparation of Maji Week 2005 commemorations.

**5:0 RESEARCH AND FEEDBACK PROGRAMS.**

**5:1 Collection of primary data on urban-poor households**

During the period of **July to August 2004** the PR Unit conducted research on urban poor households for five wards of Arusha City under the mentioned program .The objective of the exercise was to identify urban poor households that would qualify to be provided with free water service by the Authority as per Ministry's directives.

**5:2 Carrying In –house survey regarding implementation of Client Service Charter.**

During the period of **April to June 2005**, the PR Unit conducted internal survey with the objective of assessing the effectiveness of Client service charter by internal customers. The PR unit conducted in-house (pilot) survey from Internal Customers in order to gauge the effectiveness of client service Charter especially on provision of efficient customer focus service.

Opinions were collected from Stores, Accounts, Billing and Meter reading sections. The exercise was conducted to the following internal staff -Meter readers, Leakage team Billing, Stores staff and Accounts staff where the opinion collected were as follows:

**Meter Readers.**

- Due to lack of transport facilities most Meter readers fail to arrive at their sites on time, this therefore brought inefficiency in carrying out their activities. On this regard, additional transport or transport allowance could be helpful.
- NWC team should assist in introducing new customer routes to enable new readings to be recorded on monthly basis.
- The office should pay attention to some customers who close their gates as this hinders Meter readers from reading respective customer water meters.

**Leakage team.**

- As per bullet one above
- Some customers should be sensitised to safeguard main pipes and service lines within their premises.

**Billing staff.**

Absence of a responsible person to handle customers who come for billing issues at the front office hence there is a need of having a responsible staff to handle customers of this nature.

**Accounts office.**

- Internal customers are not paid promptly due to misplaced Personal Files especially when it comes to annual leave payments.
- Proper file movement should be effected.

**Stores office**

Goods and service providers are not paid their claims on time due to misplaced Invoices.

**Remarks.**

The Unit shall continue to collect opinions and comments from internal customers in other sections/units regarding effectiveness of the Client Service Charter. The Unit endeavors to work on these opinions and submit to the Management for necessary action.

**5:3 Customers' comments and suggestions regarding the Authority services.**

In order to continue improving customer focused service and maintains good Public Image, the unit has established various channels, which are used to obtain, and /or track feedback from customers and stakeholders in the form of complaints, comments, criticisms, and compliments regarding the Authority's performance. These channels are: -

- Customer care desk.
- Suggestion box.
- Telephone and.
- Correspondences.
- Media channels.

**Customer care desk**

Through customer care desk the Authority received various feedback from customers and the general Public about water and sewerage services.

**(i) Appreciation note on improvement of water supply in most areas of Arusha City.**

This was made by Elerai,Unga Ltd, Njiro BI B & D,Sanawari Sombetini and Majengo areas. Eight (8) customers from Sakina (1), Njiro BI B& D (2), Unga ltd (1), Sanawari (1), Sombetini (2) and Majengo (1) The desk also received appreciation made by customers on AUWSA staff by being efficient in connecting water services; the process is done promptly and f bureaucratic free as compared with other service provisions institutions.

**(ii) Request for water supply at convenient time**

Request made by Sombetini/Mbauda customers to get water supply on daytime instead of night when, they cannot fetch water during that time due to security reasons.

**(iii) Advise on Rainwater harvesting**

Several customers advised the Authority to start using rain season effectively by looking into ways of harvesting and restoring rainwater in order to increase supply of water in the City of Arusha. This can enable the Authority to down electricity costs for pumps paid to TANESCO.

**Suggestion box.**

Through the suggestion box, the Unit received information about water –theft from customers, which was dealt with accordingly.

**Telephone.**

Seven (7) customers from Kijenge Mwanama (kanisani -1), Sombetini (njia ya Ng'ombe -1), Kaloleni (1) Lemara (1),Majengo(1) and Themis (1) have appreciated improvement of water services to their areas after commissioning of Nduruma W/S project.

**Correspondence.**

In principle, all correspondences are addressed to the Managing Director who in turn forward them to the responsible sections/units for action. The PR Unit shall advise on how to get copies of relevant incoming letters in order to get the required feedback.

**Media channels.**

The Unit has tracked comments from the media as follows:

**Local newspaper (Arusha Times) of August 2004** - A customer wrote to the editor commended efforts done by the AUWSA to improve the supply of service to City residents, however, water shortage problems still persist in some areas hence he argued AUWSA to be more innovative by exploring resources both locally and globally to solve the problem.

**Local newspaper (Arusha Times) of December 2004** - A trainee of school for International training wrote to the editor explaining her concern on poor quality of water supplied by AUWSA to the City residents, the comments are according to the research she conducted in Olorien Ward only, where there are is traditional water sources not owned by AUWSA.

**Local Radio station (Radio One)-** Comments made by customers on the Authority's efficiency in connection of water services, which is done promptly and free from any bureaucracy.

**Comment.**

In order to effectively track feedback from media, the Unit is scheduling to have informative and educative programmes to be aired by local media stations in Arusha City.

This is expected to further raise awareness and understanding to customers and stakeholders about AUWSA services and operations as well as their rights and obligations in getting these services. This program has been included in the annual budgeted for the year 2005/2006.

**GENERAL COMMENT/CONCLUSION.**

The general perception/image of AUWSA services and activities is positive. However more information and education about the Authority and the standards of services provided need to be done to the public in a pro-active manner. Internally, all employees, at every level need to be educated and trained so that they can be more proactive and efficient in providing customer - focused service.

## **2.11 Internal Audit**

The following activities were performed during the period from 1<sup>st</sup> July 2004 to 30<sup>th</sup> June 2005.

1. Reviewed on daily basis, the revenue collection and banking documents which include receipts, bank pay-in-slips, computer's cashier reports, computer audit trail reports and receipt cancelled reports.
2. Performed periodic audits and produce Audit Reports on the following areas:
  - Cash and Bank transactions- July 2004 to June 2005
  - Inventories- July 2004 to June 2005
  - Trade Debtors- July 2004 to June 2005
  - Staff Debtors- July 2004 to May 2005
  - Fuel Consumption- July 2004 to March 2005
  - NWC

(The above mentioned reports were submitted to the Board members and accompanying documents for 3<sup>rd</sup> and 4<sup>th</sup> quarterly progress reports)

3. Advising the Management on financial and non-financial matters on the day to day operations of the Authority. This is normally achieved by way of discussions on the relevant issues.

## **2.12 Finance Section**

- ❖ Over the reporting period the following activities were undertaken:-
- ❖ Supervision of revenue collection and banking.
- ❖ Controlling expenditure in line with Financial Regulations.
- ❖ Preparation of Annual Accounts for F/Y 2004/2005 for External Audit.
- ❖ Bank reconciliation.
- ❖ Preparation of all payments to Suppliers.
- ❖ Preparation of monthly salaries and dues to AUWSA staff.

Operating results for the financial year 2004/2005 have the following to reveal:

- ❖ Billing Income has increased by 4% from Tshs. 2,145bn to Tshs. 2.239bn.
- ❖ Other Income has increased by 62% from Tshs. 549.8m to Tshs. 899.3m.
- ❖ Net Profit generated increased by 23% to reach Tshs. 334.9m which account for 11% on Gross Income.
- ❖ Share Capital contributed 5.7% surplus as compared to a 4.6% for last year.
- ❖ Gross Income increased by 16% from Tshs. 2.695bn for previous year to reach Tshs. 3.139bn in the year under review
- ❖ Regarding the IFRS Migration process, the UWSA has completed the process and will continue to amend the reporting requirements in line with the new developments as endorsed by the International Accounting Standards Board (IASB).

**Note: More details on the duties of finance section have been included as annexes.**

### **3.0 CAPITAL PROJECTS**

#### **(i) Extension of water supply pipelines**

The following pipeline extensions were planned and constructed to extend supply to unserved areas:-

- TEMDO – Block D Njiro - 1600m – 50mm Dia
- SAKINA North - 200m – 50mm Dia
- Majengo chini – Kitopeni - 450m – 50mm Dia
- Sombetini – Ali Saw Mill - 900m – 50mm Dia
- Additional of intake pipe – Olgilai - 24m – 200mm Dia

#### **(ii) Office furniture and equipment**

Various office furnitures and equipments were procured over the year which include office tables, chairs and cabinets, computers, air conditioners and working tools.

#### **(iii) Laboratory equipment**

Important equipments were procured for our water laboratory Advanced PH/ISE meter for fluoride measurement.

#### **(iv) Procurement of water meters.**

At this financial year no water meter was procured but there was a procurement of water calibration unit from Kenya.

#### **(v) Water pumps and equipments**

In the financial year ended 2004/2005 a pump SG8F/6A+8P75 was bought for Olgilai sump. The following motors were purchased as backups incase of break downs:-

6P15	-	11kw	-	JET
6P20	-	15kw	-	JET
6P150	-	110kw	-	JET
	-	22kw	-	Grundfos

#### **(vi) Sewerage network extension**

- Extension of sewer line from Ngarenaro area across Nairobi road to Kambi ya Fisi area (295m) was finalized and the remaining portion shall be extended during F/Y 2005/2006.
- Extension of Levulosi sewer line Phase II (515m) was constructed.

#### **(vii) Drilling of boreholes**

The Moivo I borehole was rehabilitated by DDCA. Drilling of 2 additional boreholes has been earmarked for 2005/2006.

**(viii) Water Supply Programme Phase II: Nduruma Gravity Source Development Works**

The stalled Nduruma Water Project whose commencement of works was delayed from 22<sup>nd</sup> October, 2003 to 19<sup>th</sup> May, 2004 due to villagers disturbances eventually took off and was commissioned on January 2005.

(a) Scope of works

- One (1) intake structure with wet wells and water meter/valve chambers including installation of pipes and fittings
- DN 250 DCI raw water gravity main (1.9km)
- Chlorination plant including supply and installation of electro mechanical equipment.
- Rapid mixer unit.
- Clear water reservoir of 1000m<sup>3</sup> capacity.
- Operators dwelling and compound work.
- DN 300 DCI clear water gravity main (6.4km)
- Three (3) break pressure tanks.
- A number of river crossing and miscellaneous structures.

(b) Project costs

- Supply contract EURO 600,000.00 Equivalent to Tshs. 805,800,000.00 (paid by KfW)
- Construction works Tshs. 1,200,000,000.00 (paid by AUWSA)  
Total Tshs. 2,005,800,000.00
- Consultancy Services EURO 250,000.00 (to be paid by KfW)

(c) Project Internal Rate of Return (IRR)

Production per year  $3,800 \times 365 = 1,387,000\text{m}^3/\text{year}$

Assuming 30% UFW billable water per annum = 970,900m<sup>3</sup>

Assuming 90% collection efficiency, 85% efficiency and average weighted price 369.85 per m<sup>3</sup>

Expected Revenue per annum =  $970,900 \times 0.85 \times 0.9 \times 369.98$   
= Tshs. 274,798,390.23

Return on investment =  $\frac{2,005,800,000.00}{274,798,390.23} = 7.3$  years

Therefore the project pay back period is 5 years of operation. However the project life span is 40 – 50 years before major rehabilitation.

Future rate of return by considering Malala source and consultancy services

(i)	Nduruma cost	=	2,005,800,000.00
(ii)	Malala cost	=	630,438,334.80
(iii)	Consultancy cost	=	<u>335,750,000.00</u> (250,000.00)
	Total	=	2,971,988,334.80

Total Production

Malala intake 3,700m<sup>3</sup>/day, Nduruma 3,800m<sup>3</sup>/day = 7,500m<sup>3</sup>/day.

Return of investment

$$\frac{2,971,988,334.80}{1,916,250 \times 0.85 \times 0.9 \times 369.98} = 5.4 \text{ years}$$

Note:

- (i) The calculations are based to the previous stated assumptions.
- (ii) The Rate of return for future is lower because Malala source shares most of infrastructure with already commissioned Nduruma source.

(d) Social benefits

- Health benefits = Improved water supply has been proven to improve communities health, a benefit which is immeasurable in monetary terms.
- Economic benefits = Improved water supply will keep our industries and commercial sector to operate in their peak capacity, hence ensuring stable employments and in some cases create new employments.

(e) Political Stability

Water being one of political commodity and the most basic human need, its availability increases the credibility of the leaders.

(f) Quest for city status assured water supply in Arusha would strengthen its bargaining position for 'City Status'.

#### **4.0 CONCLUSION**

The performance of AUWSA over the reporting period shows an improvement over the previous year in almost all indicators as it has been the case year after year since the establishment of the Authority. Water production has been going down over the last four years due to continuous failure of rains. Solution is development of additional gravity sources and that is reflected in the commissioning of Nduruma water source and earmarking development of Malala water source whenever the financial status will allow.

## 5.0 PERFORMANCE INDICATORS

### A. General Indicators

#### (i) Supply and Demand

(a)	Estimated water demand.....	15,330,000.00m <sup>3</sup> /year
(b)	Quantity of water produced .....	11,299,423.41m <sup>3</sup> /year

#### (ii) Production from various sources (in m<sup>3</sup>).

	SOURCE					
	NEW WELLS	OLD WELLS	NGARENDOLU	NDURUMA	OLGILAI	TOTAL
F/Y 2004/05	3,385,008.073	1,327,422.00	475,232.00	793,343.98	5,318,816.90	11,299,827.69
F/Y 2003/04	3,273,579.77	1,479,153.68	588,440.12		6,278,270.16	11,623,423.41

#### (iii) Billed Water

(a)	Quantity of billable water-----	9,604,853.53m <sup>3</sup> /year (basing on estimated 15% losses through leakages)
	<i>(Billable water = water produced minus leakages)</i>	
(b)	Actual quantity of water billed -----	6,265,965.96m <sup>3</sup> /year
(c)	Billing efficiency (water billed/billable water) -----	65.24%

#### (iv) Quality of water produced.

pH	Turbidity (NTU)	Calcium (mg/l)	Chloride (mg/l)	Fluorides (mg/l)	Fe (mg/l)	Mg (mg/l)	Nitrates (mg/l)	E-Coli (nos/ml)
7.91	0.00	8.01	0.2	4.03	0.01	0.06	10.46	0

#### (v) Quantity of chemicals consumed.

Chemical	Coagulant	Coagulant	Magma Floc	Chlorine Gas	Hypochlorites (65 – 70%) & (35 – 37%)
Quantity (kg)	-	-	-	-	7,224
Total cost (Tshs)	-	-	-	-	10,098,704.6

#### (vi) Electricity Consumption

(a)	KWh consumed over the reporting period.....	4,028,085KWh
(b)	KVA recorded .....	8,454 KVA
(c)	TANESCO bills .....	Tshs. 308,686,965.00
(d)	Amount paid .....	Tshs. 308,686,965.00
(e)	Total outstanding bills todate .....	Tshs. NIL

**B. Service Indicators.**

- (i) Average hours of service per day ..... 24 hrs
- (ii) Proportion of consumers with 24 hours service (%) 95%
- (iii) No. of new connections (water) 1,375 and total connections todate 20,744
- (iv) No. of new connections (sewerage) 74 and total connections todate 2,721
- (v) No. of kiosks, Total ..... 46 working ..... 27 not working 19 (more customers have afforded house connections in the respective areas)
- (vi) Cost of 20 lts Jerrycan by vendors Tshs. 5 - 10/=; by Authority Tshs. 5/=
- (vii) Distribution of connections.

Category Zone	Domestic and S/Pipe	Institutional	Commercial	Industrial	Others (Kiosks & Bottling)	Total
Total	19,435	206	763	285	55	20,744

**(viii) Total number of metered connections.**

Category	Domestic	Institutional	Commercial	Industrial	Others	Total
Total	19,435	206	763	285	55	20,744
Working	19,382	206	763	285	55	20,691

**(ix) Number and percentage of population served.**

Service	Institutional	House Hold	Yard Tap	Kiosk	Total
Total pop.	20,000	255,000	7,000	20,000	300,000
Pop. Served	19,000	242,250	7,000	20,000	285,000
Percentage	95%	95%	100%	100%	95%

**(x) Sewerage Service Summary.**

**(a) General**

Category	Domestic	Institutional	Commercial	Industrial	Total
Number of connections	2,094	96	423	108	2,721
Design population	3,020	160	540	140	3,861
Pop. Served	15,740	3,800	4,420	3,800	27,760
Coverage (%)	9.4	0.4	1.1	0.7	11.6
Bills distributed	2,094	95	423	108	2,721
Type of treatment	-	-	-	-	WSP
Effluent quality BOD	-	-	-	-	82mg/l

**(b) Waste Water Quality**

Type of treatment - WSP

Influent Quality (CoD, BoD<sub>5</sub>, at 20°C, Heavy metal , pH, Colour, Do) BOD<sub>5</sub> – 393mg/l

Effluent Quality (CoD, BoD<sub>5</sub>, at 20°C, Heavy metal , pH, Colour, Do) BOD<sub>5</sub> – 79mg/l

Total No. of pumps available: NA - No. of operational sewerage pumps. NA

Total length of sewer 35.4km, inspected 30.5km and flushed NIL.

Number of sewer blockages attended 2,037, cleaning occasions 1,903

**(c) Efficiency Indicators**

(i) Total O&M costs (Tshs) 2,121,339,074.28

**(Total O&M costs = total monthly O&M expenditure plus Government subsidies on electricity and salaries)**

(ii) Unit cost of water produced (Tshs/m<sup>3</sup>) 187.73

**(Total O&M costs/Total production)**

(iii) Unaccounted for Water (%) 34.76 leakages (%) 15%

**(UFW is composed of leakages, overflows, illegal connections, meter under registration, etc)**

(iv) Annual water billing

Category	Domestic/S/Pipes	Institutional	Commercial	Industrial	Stand pipe/kiosk and Bottling Plants	Total
Prepared						172,370
Distribution						172,370
Paid						

(v) Annual revenue collection

Category	Total
Water sales	2,088,862,894.01
Sewer payments	127,587,487.99
New Sewer connection fees	980,750.00
New water connection fee	133,353,000.40
Water reconnection fees	33,667,260.00
Revenue on Material/Service Rendered.	3,939,000.00
Water meter rental fees	104,857,131.02
Miscellaneous (Water meter deposit)	902,200.00
Other recoverable charges	23,079,565.00
Bank Interest	2,028,043.15
<b>TOTAL</b>	<b>2,519,257,331.57</b>
Estimated revenue according to Budget	2,742,127,406.00

Achievement against Budget: 91.86%

(vi) Revenue Collection Efficiency(%): 91.46%

**(Revenue Collection Efficiency = Revenue collected from water and sewer only /Value of water and sewer billed annually)**

**Working ratio: - 0.84 (Operating costs/Operating revenue)**

(vii) Records of leakage detection and repair

<b>Category</b>	<b>Domestic</b>	<b>Institutional</b>	<b>Commercial</b>	<b>Industrial</b>	<b>Total</b>
Number detected	2,480	35	139	-	2,654
Number repaired	All	All	All	All	All
Pipe breaks/km/year					9.5

- (viii) No. of consumer complaints received on lack of water/low pressure 1,651
- (ix) No. of complaints received on water quality NIL
- (x) No. of complaints received on sewerage issues 100
- (xi) No. of days used to attend a major breakdown in the year (if any) 1 – 2 days
- (xii) No. of days used to attend a major leak in the year (if any) 1 day
- (xiii) No. of employees per 1000 (W&S) connections 9
- (xiv) Total expenditure on O&M (for the year) Tshs. 2,121,339,074.28
- (xv) Personnel expenditure as a % of annual income 27.78%

**D. Miscellaneous Indicators**

- (i) No. of Board Meetings held: 7
- (ii) No. of all Board Committee Meetings held - Seven
- (iii) Any review of tariffs done (Yes/No) Yes. To come into effect from 1<sup>st</sup> November, 2005.
- (iv) Total UWSA's unpaid debts (to suppliers) (Tshs) NIL

Table 24: Annual Revenue Collection (July 2004- June 2005)

CODE	DESCRIPTION	APPROVED BUDGET FOR THE FINANCIAL YEAR 2004/05	JULY 04 - JUNE 05 ACTUAL TSHS	VARIANCE AMOUNT TSHS	VARIANCE GE %	VARIANC E STATUS
101	Water sales	2,263,636,598.00	2,088,862,894.01	<b>(174,773,704.00)</b>	<b>(7.7)</b>	<b>U</b>
102	Sewer Payments	152,806,600.00	127,587,487.99	<b>(25,219,112.01)</b>	<b>(16.5)</b>	<b>U</b>
103	New Sewer Connection Fees	1,275,000.00	980,750.00	<b>(294,250.00)</b>	<b>(23.1)</b>	<b>U</b>
104	New Water Connection Fees	168,000,000.00	133,353,000.40	<b>(34,646,999.60)</b>	<b>(20.6)</b>	<b>U</b>
105	Water Reconnection Fees	20,000,000.00	33,667,260.00	13,667,260.00	68.3	F
106	Revenue on Materials/Service rendered	4,880,000.00	3,939,000.00	<b>(941,000.00)</b>	<b>(19.3)</b>	<b>U</b>
107	Water meter Rental Fees	119,348,400.00	104,857,131.02	<b>(14,491,268.98)</b>	<b>(12.1)</b>	<b>U</b>
108	Miscellaneous (Water Meter Deposit)	1,380,000.00	902,200.00	<b>(477,800.00)</b>	<b>(34.6)</b>	<b>U</b>
109	Government Grant(local Component)	-	-	-	-	
110	Amortization of Grant	-	-	-	-	
111	Other Recoverable Charges	10,800,000.00	23,079,565.00	12,279,565.00	113.7	F
112	Bank Interest	-	2,028,043.15	2,028,043.15	-	F
	<b>GRAND TOTAL</b>	<b>2,742,127,406.00</b>	<b>2,519,257,331.57</b>	<b>(222,870,075)</b>	<b>8.12)</b>	<b>U</b>

**KEY:****F = Favourable****U = Unfavourable**

Table 25: Operation and Maintenance Expenditure (July 2004 – June 2005)

	DESCRIPTION	APPROVED PLAN FOR THE YEAR 04/05	RE - ALOCATION + OR -	REVIEWED PLAN	JULY 04 - JUNE 05 ACTUAL TSH	VARIANCE AMOUNT	VARIANCE GE%	VARIANCE STATUS
1	2	3	4	5	6	(5 - 6)		
<b>200</b>	<b>Water Production Expenses</b>							
201	Electricity for Pumps	394,975,200.00		394,975,200.00	307,418,203.20	87,556,996.80	28.48	F
202	Water Chemicals	34,529,800.00		34,529,800.00	13,875,791.75	20,654,008.25	148.85	F
203	Fuel & Lubricants (Generator)	10,000,000.00		10,000,000.00	5,298,623.80	4,701,376.20	88.73	F
204	Water Use Fee	16,147,600.00		16,147,600.00	12,210,666.00	3,936,934.00	32.24	F
205	Laboratory	4,210,400.00		4,210,400.00	-	4,210,400.00	100.00	F
	<b>SUB TOTAL</b>	<b>459,863,000.00</b>		<b>459,863,000.00</b>	<b>338,803,284.75</b>	<b>121,059,715.25</b>	<b>35.73</b>	<b>F</b>
<b>210</b>	<b>Water Distribution Expenses</b>							
211	Pipes and Fittings	17,446,000.00		17,446,000.00	16,792,720.60	653,279.40	3.89	F
212	Customer Survey	3,310,000.00		3,310,000.00	2,539,513.32	770,486.68	30.34	F
213	Water Meter Installation	26,550,000.00		26,550,000.00	20,892,768.64	5,657,231.36	27.08	F
214	New Water Connections	134,400,000.00		134,400,000.00	115,043,380.00	19,356,620.00	16.83	F
	<b>SUB TOTAL</b>	<b>181,706,000.00</b>		<b>181,706,000.00</b>	<b>155,268,382.56</b>	<b>26,437,617.44</b>	<b>17.03</b>	<b>F</b>
<b>220</b>	<b>Sewerage Disposal Expenses</b>							
221	Sewers and Manhole	10,943,500.00		10,943,500.00	4,615,360.00	6,328,140.00	137.11	F
222	Customer survey	1,887,500.00		1,887,500.00	218,600.00	1,668,900.00	763.45	F
223	Ponds Expenses	12,575,500.00		12,575,500.00	10,387,064.00	2,188,436.00	21.07	F
224	Laboratory	2,959,000.00		2,959,000.00	-	2,959,000.00		F
	<b>SUB TOTAL</b>	<b>28,365,500.00</b>		<b>28,365,500.00</b>	<b>15,221,024.00</b>	<b>13,144,476.00</b>	<b>86.36</b>	<b>F</b>
<b>230</b>	<b>Maintenance and Repair Expenses</b>							
231	Upkeep of Production infrastructure	24,712,500.00		24,712,500.00	24,049,678.10	662,821.90	2.76	F
232	Pipes and Fittings	19,787,200.00	9,000,000	28,787,200.00	27,926,125.84	861,074.16	3.08	F
233	Upkeep of Building	7,785,000.00		7,785,000.00	7,702,601.00	82,399.00	1.07	F
234	Plants Crafts and Heavy	31,147,400.00	(10,700,000)	20,447,400.00	13,632,364.00	6,815,036.00	49.99	F
235	Motor vehicle & cycles (spare parts)	89,766,600.00	(25,500,000)	64,266,600.00	54,447,420.30	9,819,179.70	18.03	F
236	Motor vehicle & cycles (fuel)	77,979,200.00	25,500,000	103,479,200.00	95,586,941.01	7,892,258.99	8.26	F
237	Upkeep of sewerage Infrastructure	8,120,500.00	1,700,000	9,820,500.00	7,494,837.33	2,325,662.67	31.03	F
	<b>SUB TOTAL</b>	<b>259,298,400.00</b>	<b>-</b>	<b>259,298,400.00</b>	<b>230,839,967.58</b>	<b>28,458,432.42</b>	<b>12.33</b>	<b>F</b>

<b>240</b>	<b>Personnel Expenses</b>							
241	Basic Salary	428,570,700.00	(14,098,540)	414,472,160.00	412,383,085.70	2,089,074.30	0.51	F
242	Gratuity	849,708.00		849,708.00	935,040.00	(85,332.00)	(9.13)	U
243	Employers PPF/NSSF Contribution	51,648,600.00	6,863,880	58,512,480.00	58,358,379.84	154,100.16	0.26	F
244	House Allowance	46,667,800.00	7,234,660	53,902,460.00	53,107,509.71	794,950.29	1.50	F
245	Wages	6,240,000.00	2,000,000	8,240,000.00	7,590,000.00	650,000.00	8.56	F
246	OT/Lunch Allowance	49,086,000.00	(1,000,000)	48,086,000.00	48,086,000.00	-	-	F
247	Traveling on leave	31,880,600.00	(2,500,000)	29,380,600.00	28,975,867.00	404,733.00	1.40	F
248	Payroll Levy	0.00		0.00	-	-		
249	Skills and Development	0.00		0.00	-	-		
250	Medical	38,880,000.00		38,880,000.00	40,125,601.84	(1,245,601.84)	(3.10)	U
251	Hardship Allowance	3,240,000.00	(500,000)	2,740,000.00	2,551,500.00	188,500.00	7.39	F
252	Responsibility Allowance	0.00		0.00	-	-		
253	Acting Allowance	400,000.00		400,000.00	136,456.00	263,544.00	193.13	F
254	Reimbursement of Fuel Expenses	41,580,000.00	8,500,000	50,080,000.00	49,034,100.00	1,045,900.00	2.13	F
255	Transport allowance	48,480,000.00	(1,000,000)	47,480,000.00	45,510,000.00	1,970,000.00	4.33	F
256	Extra Duty Allowance	0.00		0.00	-	-		
257	Motisha (Bonus)	50,000,000.00	15,000,000	65,000,000.00	64,822,300.58	177,699.42	0.27	F
	<b>SUB TOTAL</b>	<b>797,523,408.00</b>	<b>20,500,000</b>	<b>818,023,408.00</b>	<b>811,615,840.67</b>	<b>6,407,567.33</b>	<b>0.79</b>	<b>F</b>
<b>260</b>	<b>Administration Expenses</b>							
261	Land Rent & Rates	10,200,000.00	(4,200,000)	6,000,000.00	229,950.00	5,770,050.00	2,509.26	F
262	Postage	33,750,000.00	13,600,000	47,350,000.00	44,302,310.00	3,047,690.00	6.88	F
263	Telephone	8,000,000.00		8,000,000.00	4,100,925.43	3,899,074.57	95.08	F
264	E-Mail	1,000,000.00		1,000,000.00	466,560.00	533,440.00	114.33	F
265	Hand set (Mobile Phones)	19,800,000.00	3,900,000	23,700,000.00	23,375,300.00	324,700.00	1.39	F
266	Insurance	9,619,000.00		9,619,000.00	6,277,895.00	3,341,105.00	53.22	F
267	Office and General	42,000,000.00		42,000,000.00	41,053,015.41	946,984.59	2.31	F
268	Fumigation	4,000,000.00		4,000,000.00	3,411,330.00	588,670.00	17.26	F
269	Fire Fighting Equipment	600,000.00		600,000.00	405,000.00	195,000.00	48.15	F
270	Training	72,713,300.00	(10,000,000)	62,713,300.00	43,611,956.80	19,101,343.20	43.80	F
271	Outfit Allowance	2,500,000.00		2,500,000.00	-	2,500,000.00		F
272	Examination/Course Fee	5,000,000.00		5,000,000.00	2,746,500.00	2,253,500.00	82.05	F
273	Traveling on Duty	72,240,000.00		72,240,000.00	70,154,876.00	2,085,124.00	2.97	F
274	Board Meetings	46,632,000.00	18,500,000	65,132,000.00	60,902,300.00	4,229,700.00	6.95	F

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275	Computer	17,679,000.00		17,679,000.00	16,366,037.50	1,312,962.50	8.02	F
276	Uniforms	15,155,200.00		15,155,200.00	9,122,666.67	6,032,533.33	66.13	F
277	Electricity for Office	4,500,000.00		4,500,000.00	4,813,476.15	<b>(313,476.15)</b>	<b>(6.51)</b>	U
278	Workers Council	21,580,000.00	(5,000,000)	16,580,000.00	7,759,200.00	8,820,800.00	113.68	F
279	Management Meetings	5,810,000.00		5,810,000.00	4,165,240.00	1,644,760.00	39.49	F
280	Function All Workers	8,000,000.00		8,000,000.00	7,652,665.00	347,335.00	4.54	F
281	Burial	10,000,000.00		10,000,000.00	8,689,200.00	1,310,800.00	15.09	F
282	Miscellaneous/contingencies	5,000,000.00	7,000,000	12,000,000.00	11,402,272.07	597,727.93	5.24	F
283	Compensation	4,000,000.00		4,000,000.00	183,068.80	3,816,931.20	2,084.97	F
284	Stamp Duty	30,000,000.00	(29,900,000)	100,000.00	-	100,000.00		F
285	Organization Manuals	20,000,000.00		20,000,000.00	19,304,400.00	695,600.00	3.60	F
286	Tax Penalties	1,000.00		1,000.00	-	1,000.00		F
287	AUWSA Tender Board Expenses	14,280,000.00	6,000,000	20,280,000.00	17,932,960.00	2,347,040.00	13.09	F
288	Service Delivery Target Cost - PAO	38,000,000.00	(20,400,000)	17,600,000.00	3,314,100.00	14,285,900.00	431.06	F
289	Service Delivery Target Cost - CCO	15,000,000.00		15,000,000.00	-	15,000,000.00		F
	<b>SUB TOTAL</b>	<b>537,059,500.00</b>	<b>(20,500,000)</b>	<b>516,559,500.00</b>	<b>411,743,204.83</b>	<b>104,816,295.17</b>	<b>25.46</b>	<b>F</b>
<b>290</b>	<b>Business Promotion Expenses</b>							
291	Public Relation & Advertisements	50,263,900.00	(1,500,000)	48,763,900.00	43,690,134.00	5,073,766.00	11.61	F
292	News papers & Periodicals	3,418,000.00		3,418,000.00	2,654,700.00	763,300.00	28.75	F
293	National Monument Roundabout	16,000,000.00	(10,000,000)	6,000,000.00	2,321,774.00	3,678,226.00	158.42	F
294	Board Meeting and Missions	17,000,000.00	11,500,000	28,500,000.00	26,692,260.00	1,807,740.00	6.77	F
295	Managing Director	1,800,000.00		1,800,000.00	1,800,000.00	-	-	F
296	Board Chairman	1,800,000.00		1,800,000.00	1,411,000.00	389,000.00	27.57	F
297	Technical Manager	900,000.00		900,000.00	900,000.00	-	-	F
298	Finance and Administrative Manager	900,000.00		900,000.00	900,000.00	-	-	F
299	Commercial Manager	900,000.00		900,000.00	900,000.00	-	-	F
	<b>SUB TOTAL</b>	<b>92,981,900.00</b>	<b>-</b>	<b>92,981,900.00</b>	<b>81,269,868.00</b>	<b>11,712,032.00</b>	<b>14.41</b>	<b>F</b>
<b>300</b>	<b>Charity/Subscription/Donation</b>							
301	AWEC	8,125,000.00		8,125,000.00	6,635,000.00	1,490,000.00	22.46	F
302	Maji Week	11,416,000.00		11,416,000.00	11,301,750.00	114,250.00	1.01	F
303	May Day	4,396,000.00		4,396,000.00	4,368,400.00	27,600.00	0.63	
304	UWSA Annual General Meeting	3,000,000.00		3,000,000.00	3,000,000.00	-	-	F
305	Other Donation	15,000,000.00		15,000,000.00	10,241,825.00	4,758,175.00	46.46	F

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306	5 Yrs AUWSA Anniversary	0.00		0.00	-	-		
	<b>SUB TOTAL</b>	<b>41,937,000.00</b>		<b>41,937,000.00</b>	<b>35,546,975.00</b>	<b>6,390,025.00</b>	<b>17.98</b>	<b>F</b>
<b>300</b>	<b>Fees</b>							
311	Professional Fees	2,705,000.00		2,705,000.00	1,414,083.67	1,290,916.33	91.29	<b>F</b>
312	Audit Fees And other Expenses	9,000,000.00		9,000,000.00	7,585,750.00	1,414,250.00	18.64	<b>F</b>
313	Legal Fees	6,000,000.00	(2,000,000)	4,000,000.00	-	4,000,000.00		<b>F</b>
314	Directors Fees	30,000,000.00		30,000,000.00	24,295,707.00	5,704,293.00	23.48	<b>F</b>
	<b>SUB TOTAL</b>	<b>47,705,000.00</b>	<b>(2,000,000)</b>	<b>45,705,000.00</b>	<b>33,295,540.67</b>	<b>12,409,459.33</b>	<b>37.27</b>	<b>F</b>
<b>320</b>	<b>Finance Expenses</b>							
321	Bank charges	3,000,000.00	2,000,000	5,000,000.00	4,156,649.22	843,350.78	20.29	<b>F</b>
322	Loan Interest	1,000.00		1,000.00	-	1,000.00		
	<b>SUBTOTAL</b>	<b>3,001,000.00</b>	<b>2,000,000</b>	<b>5,001,000.00</b>	<b>4,156,649.22</b>	<b>844,350.78</b>	<b>20.31</b>	<b>F</b>
	<b>GRAND TOTAL</b>	<b>2,449,440,708.00</b>	<b>-</b>	<b>2,449,440,708.00</b>	<b>2,117,760,737.28</b>	<b>331,679,970.72</b>	<b>15.66</b>	<b>F</b>

Table 26: Capital Expenditure (July 2004 – June 2005)

CODE	BUDGET SCHEDULE	DESCRIPTIONS	APPROVED PLAN FOR THE YEAR	RE-ALLOCATION + OR -	REVIEWED PLAN	JULY 04- JUNE 05 ACTUAL TSHS	VARIANCE AMOUNT	VARIANCE GE %	VARIANCE STATUS
1	2	3	4	5	6	7	( 6 - 7 )		
431	5.1	FURNITURE, FITTINGS AND OFFICE EQUIPMENT	74,856,600.00		<b>74,856,600.00</b>	46,343,410.15	28,513,189.85	61.53	F
432	5.5	WATER PUMPS & ELECTRICAL EQUIPMENT	164,370,000.00		<b>164,370,000.00</b>	31,425,950.00	132,944,050.00	423.04	F
433	5.3	LABORATORY EQUIPMENT	1,450,000.00		<b>1,450,000.00</b>	3,405,556.35	<b>(1,955,556.35)</b>	<b>(57.42)</b>	<b>U</b>
434		MOTOR VEHICLES	47,761,252.60		<b>47,761,252.60</b>	47,761,252.60	-	-	F
438	5.2	EXT OF WATER SUPPLY PIPE LINES	17,291,100.00		<b>17,291,100.00</b>	7,584,336.00	9,706,764.00	127.98	F
439	5.4	SEWERAGE NETWORK	35,613,600.00		<b>35,613,600.00</b>	18,045,626.00	17,567,974.00	97.35	F
440	5.8	OFFICE BLOCK	2,000,000.00		<b>2,000,000.00</b>	-	2,000,000.00	100.00	F
444	5.7	DRILLING OF BOREHOLES	146,000,000.00	<b>(100,000,000.00)</b>	<b>46,000,000.00</b>	8,888,148.00	37,111,852.00	417.54	F
446	5.6	NDURUMA PROJECT (WIP)	1,031,394,500.00	<b>100,000,000.00</b>	<b>1,131,394,500.00</b>	1,070,856,932.74	60,537,567.26	5.65	F
		<b>GRAND TOTAL</b>	<b>1,520,737,052.60</b>	<b>-</b>	<b>1,520,737,052.60</b>	<b>1,234,311,211.84</b>	<b>286,425,840.76</b>	<b>23.21</b>	<b>F</b>

**KEY:****F = Favourable****U = Unfavourable**

Table 27: OPERATING RESULTS FOR THE FINANCIAL YEAR 2004/2005

SN	ITEM	2005 TSHS	2004 TSHS	%GE CHANGE	TREND ANALYSIS
1	GROSS BILLINGS	2,239,860,280	2,145,424,102	4.40	INCREASE
2	COST OF SALES	771,304,993	727,413,357	6.00	INCREASE
3	GROSS PROFIT	1,468,555,287	1,418,010,745	3.56	INCREASE
4	INDIRECT OPERATING EXPS	1,292,192,176	1,052,061,679	22.82	INCREASE
5	PROFIT FROM OPERATIONS	176,363,111	365,949,066	51.80	DECREASE
6	OTHER INCOME	899,374,630	549,806,325	64.00	INCREASE
7	OTHER NON-OPERATING EXPS	740,738,483	621,387,970	19.20	INCREASE
9	NET PROFIT FOR THE YEAR	<u>334,999,258</u>	<u>294,367,421</u>	13.80	INCREASE

## DESIRED RATE

RETURN ON SHARE CAPITAL	5.7	15	5
RETURN ON TOTAL ASSETS	3.3	15	3.2
RETURN ON GROSS INCOME	11	20	10.9
RETURN ON ACTUAL BILLINGS	15	25	13.7
PERSONNEL EXPS/ GROSS INCOME	27.8	20	25.8

## HIGHLIGHTS

1. Billings Income has increased by 4 % from Tshs 2.145bn to Tshs 2.239bn.
2. Other Income has increased by 64 % from Tshs 549.8m to Tshs 899.4m.
3. Net Profit generated increased by 23 % to reach Tshs 334.9m which account for 11 % on Gross Income
4. Share Capital contributed a 5.7 % surplus as compared to a 4.6 % for previous year.
5. Gross Income has increased by 16 % from Tshs 2.695bn for previous year to reach Tshs 3.139bn in the year under review.

## 6.0 SUMMARY OF ANNUAL REPORT AND PERFORMANCE INDICATORS ACCORDING TO MoU

No.	Description	
<b>1</b>	<b>Revenue Target (Tshs) (Budget)</b>	2,742,127,406.00
<b>2</b>	<b>Total Expenditure (Tshs)</b>	3,352,071,974.12
<b>3</b>	<b>Expenditures</b>	
	O&M Expenditure (Tshs)	2,117,760,737.27
	Capital Expenditure (Tshs)	1,234,311,211.84
<b>4</b>	<b>Total TANESCO Bills</b>	
	Total (Tshs)	308,686,965.00
	Paid (YES/NO)	YES
	Debts (Tshs)	NONE
<b>5</b>	<b>Chemicals consumed</b>	
	Alum (Alluminium Sulphate – Kgs)	-
	Cl2 (Chlorine) (lts/kgs)	-
	Calcium Hypochlorite (65 – 70%)/(35 – 37%) kgs	7,224
	Magnofloc (lts)	-
	Coagulant Aid (Kgs/lts)	-
	Others	-
	Value (Total) (Tshs)	10,098,704.60
<b>6</b>	<b>Meters installed</b>	20,744
	Working	20,691
	Not working	53
<b>7</b>	<b>Kiosks</b>	
	No. of kiosks	46
	Working	27
	Not working (not needed, people have house connections)	19
<b>8</b>	<b>Billing Efficiency</b>	65.4%
<b>9</b>	<b>Revenue Collection Efficiency (against water and sewer sale)</b>	91.46%
<b>10</b>	<b>Sewerage connection</b>	
	Total	2,721
	Coverage	11.6%
<b>11</b>	<b>Water Demand/Production</b>	15,330,000/11,299,827.69

No.	Description	
<b>12</b>	<b>No. of Board Meeting held</b>	7 – Full Board, 7 – Board Committee
<b>13</b>	<b>Average Daily Production (m<sup>3</sup>/day)</b>	30,958.43
<b>14</b>	<b>Consumer Service</b>	
	Total population (Nos)	300,000
	Population (Served %)	95%
<b>15</b>	<b>Annual water billing</b>	
	Total (Tshs)	2,293,873,606.28
	Domestic (%)	70.24%
	Industrial (%)	11.66%
	Commercial (%)	12.38%
	Institutional%	4.85%
	Other (%)	0.87%
<b>16</b>	<b>Annual collection from water billing</b>	
	Total (Tshs)	2,271,974,358
	Domestic (%)	61.5%
	Institution (%)	3.5%
	Commercial (%)	15.6%
	Industrial (%)	18.7%
	Other (%)	0.7%
<b>17</b>	<b>Annual (O&amp;M) Costs as on 30<sup>th</sup> June 2005</b>	
	Total (Tshs)	2,117,760,737.27
	Personnel (%)	27.78%
	Power (%)	14.5%
	Water production expenses (Excl. Power) %	1.6%
	Maintenance and Repair Expenses (%)	10.9%
	Water Distribution Expenses (%)	7.3%
	Administration, Staff Development, Corporate Expenses	19.4%
	Others	7.3%
<b>18</b>	<b>Service connections as on 30<sup>th</sup> June 2005</b>	
	Total no. of customers (water)	20,744
	Domestic (%)	93.6%
	Institutional (%)	1%
	Commercial (%)	3.7%

No.	Description	
	Industrial (%)	1.4%
	Others (%)	0.3%
<b>19</b>	<b>Service indicator</b>	
	Service coverage (%)	95%
	Average hours of supply (hrs)	24hrs
	Average weighted tariff (Tshs/m <sup>3</sup> )	322.41
<b>20</b>	<b>Efficiency indicators</b>	
	Unaccounted water (%)	34.6%
	Unit production costs (Tshs/m <sup>3</sup> )	187.73
	Accounts receivable (months)	6.2
	Total no. of staff (Permanent)	202
	Casual labourers	15
	Staff/1000 connections (incl. Labourers)	9.5
	Permanent staff/1000 connections	9
<b>21</b>	<b>New connections (water) during the year</b>	1,384
	Domestic (%)	98.9%
	Institutional (%)	-
	Commercial (%)	0.9%
	Industrial (%)	-
	Others (%)	0.2%

PERFORMANCE INDICATORS			ARUSHA UWSA					
(a)	MANAGEMENT INDICATORS:	AS AT JULY 2002	JUNE 2003		JUNE 2004		JUNE 2005	
			ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET
	Frequency of UWSB regular meetings	Quarterly	4- 0, 2 - EO	4	<b>4-0, 2-EO</b>	4	4 - O, 3 - EO	4
	Frequency of tariffs review	Annually	Sept. 2003	Annual	<b>September 2004</b>	Annual	June 2005	Annual
	No. of monthly reports	Monthly	12	12	<b>12</b>	12	12	12
	No. of weekly reports	Weekly	52	52	<b>52</b>	52	52	52
<b>(b)</b>	<b>GENERAL INDICATORS</b>							
	Installed water production capacity (m <sup>3</sup> /year)	15,330,000	15,330,000	16,330,000	<b>15,330,000</b>	19,267,445	16,717,000	21,170,000
	Average quantity of water produced (m <sup>3</sup> /year)	14,112,000	11,634,720	14,508,000	<b>11,623,423.4</b>	15,775,200	11,299,827.69	18,885,600
	Average quantity of billable water (m <sup>3</sup> /year)	10,584,000	9,889,512	10,881,000	<b>9,879,909.9</b>	11,830,200	9,604,853.53	14,164,200
	Quality of water produced:	Good	0.3	≤5	<b>0</b>	≤5	0	≤5
	- Turbidity (NTU)							
	- Residual chlorine (mg/l)	0.2	0.2	0.2	<b>0.2</b>	0.2	≥0.2	0.2
	- TANESCO bills payment (%)	100	100	100	<b>100</b>	100	100	100
	Quality of (sewerage) effluent:	65	55	55	<b>85</b>	45	79	30
	- BOD <sub>5</sub> at 25°C (mgO <sub>2</sub> /l)							
	COD (as mg KmnO <sub>4</sub> /l)	140	105	120	<b>102</b>	90	-	60

**O = Ordinary**

**EO = Extra Ordinary**

(c)	SERVICE INDICATORS:	AS AT JULY 2002	JUNE 2003		JUNE 2004		JUNE 2005	
			ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET
	Proportion of population served with water (%)	93	94	94	<b>95</b>	95	97	100
	Water supply area coverage (%)	94	94	95	<b>95</b>	97.5	95	100
	Average hours of service per day	22	24	23	<b>24</b>	24	24	24
	Total no. of water connections	15,697	17,359	16,217	<b>19,084</b>	16,737	20,744	17,257
	Length of new water mains and distribution network (km)	32	2.3	2	<b>6.6</b>	11	3.15	2
	Total no. of metered connections	13,443	15,148	15,000	<b>17,210</b>	16,737	20,744	17,257
	No. of metered connections in working order	10,776	15,046	12,000	<b>17,130</b>	14,000	20,691	15,000
	No. of new connections at the end of the year	1,731	1,482	520	<b>1,725</b>	520	1,384	520
	Total no. of public kiosks	48	48	48	<b>48</b>	48	46	48
	No. of public kiosks in working order	27	40	48	<b>40</b>	48	27	48
	Cost of 20 litre jerry can of water for vendor	10/=	5 – 10/=	10/=	<b>5/=</b>	10/=	5/=	10/=
	Sewerage service coverage (%)	9	9	9.5	<b>9.2</b>	10.0	11.6	10.5
	Total no. of sewerage house connections	2,548	2561	2,648	<b>2,667</b>	2,748	2,721	2,848
	No. of new sewerage connections at the end of the year.	43	86	100	<b>74</b>	100	46	100
	Length of new laterals laid and main sewers (km)	1.0	0.7	1.7	<b>0.62</b>	0.5	0.71	0.5
<b>(d)</b>	<b>EFFICIENCY INDICATORS</b>							
	Unit costs of produced water Tshs/m3	135	140.35	130	<b>191.20</b>	120	187.73	100
	Unaccounted for water (%)	30	34.4	28	<b>34.4</b>	25	34.6	25
	No. of pipe breaks (km/year)	12	6	15	<b>9.5</b>	11	10.3	11
	Billing efficiency (%)	70	77.2	72	<b>77.12</b>	75	65.4	75
	Revenue collection efficiency (%)	75	85.2	77.5	<b>83.5</b>	80	91.46	85
	No. of employees per 1000 connections	13	10	13	<b>9.5</b>	14	9	13
	Total expenditure against collection (%)	89.11	91.56	<100	<b>83</b>	<100	133	<100

	Personnel expenditure as % of overall collection	29.4	27.6	<30	<b>28.1</b>	<30	27.7	<30
	Working ratio	0.9	0.81	0.9	<b>0.87</b>	0.9	0.84	0.9
	Accounts receivable (months)	5	4	4	<b>4.3</b>	3	6.2	3
<b>(e)</b>	<b>O&amp;M BUDGET ALLOCATION INDICATORS</b>							
	Total Expenditure against budget (%)	89.11	91.56	<100	<b>87.2</b>	<100	84.4	<100
	Operation expenditure <sup>b</sup> as % of overall expenditure	32	45.7	40	<b>41.5</b>	44	63	45
	Maintenance expenditure <sup>b</sup> as % of overall expenditure	12	23.2	14	<b>12.5</b>	14	5.8	15
<b>(f)</b>	<b>COMPLETENESS OF GOVERNMENT/DONOR FUNDED PROJECTS</b>							
	Project 1(%) (Sewer extension)	-	100	100	<b>100</b>	100	100	100
	Project 2 (%) (Nduruma W.P)	-	NA	100	<b>10</b>	100	100	100

Ns = No Sewerage System

NA = Not Applicable

(W&S) = Water & Sewerage

**NOTE:**

1. Billable water is water distributed less leakages.
2. Unit cost of produced water is the O&M costs with depreciation (without investment costs and debt servicing divided by Total Water Production.
3. Personnel expenditure Include allowances for transport, responsibility, bonus, lunch, overtime, leave, housing, medical, daily paid wages, temporary employees and all salaries. It does not include traveling on duty and board meeting.
4. Working Ratio is the Operating costs (excluding investment and debt servicing) divided by operating revenue (Revenue from water and sewerage tariffs, connections and reconnection fees)
5. Operation Expenditure includes costs for: Chemicals, TANESCO bills, fuel, water rights fees, laboratory expenses, computer expenses, sewerage (power, cleaning etc)
6. Maintenance Expenditure includes costs for: maintenance (preventive, corrective & predictive) of plant and vehicles, working tools, house maintenance, plant and equipment installation and overhauls of (pump, motors, diesel engines) treatment works, pipelines (water and sewerage reticulation), sewerage system, spares, repair, fumigation services, fire extinguishers, etc
7. Accounts Receivables is the arrears expressed in months equivalent of revenue.
8. No. of employees per 1000 connections must not exceed 10