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services

Private & Confidential
Actuarial Services – Life Insurance Business

STATUTORY
ACTUARIAL VALUATION REPORT
as at 31st December 2018

Geminia Insurance Company Limited

March 2019

Final

Prepared for:

Board of Directors
Geminia Insurance Company Limited
P. O. Box 61316 - 00200
Nairobi
Kenya



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DOCUMENT PURPOSE

This document has been produced as part of the contract between Kenbright Actuarial and Financial Services and Geminia Insurance Company Limited to carry out the Appointed Actuary role as required by the Insurance Regulatory Authority

DOCUMENT OWNERSHIP

The owner of this document is the Appointed Actuary of the Insurer

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LIST OF ABBREVIATION

Abbreviation	Definition
AURR	Additional Unexpired Risk Reserves
BE	Best Estimate
CAR	Capital Adequacy Ratio
GEP	Gross Earned Premium
GWP	Gross Written Premium
IBNR	Incurred But Not Reported
IRA	Insurance Regulatory Authority Kenya
KAFS	Kenbright Actuarial and Financial Services
NEP	Net Earned Premium
NSE	Nairobi Securities Exchange
NWP	Net Written Premium
RBC	Risk Based Capital
RM	Risk Margin
UPR	Unearned Premium Reserves

1. STATEMENT BY ACTUARY

Eighth Schedule (r. 16) of the Insurance Act

ACTUARY'S CERTIFICATE

I, **Ezekiel Macharia Mburu of Kenbright Actuarial & Financial Services Limited, ACK Garden House, Block D, Ground Floor, Upperhill, 1st Ngong Avenue, P.O. Box 28281 – 00200 Nairobi, Kenya**, being an Actuary duly qualified in terms of Section 2 of the Insurance Act having conducted an investigation in terms of section 57 and 58 of that Act, do hereby certify as under:

- a) That in my opinion the value placed upon the aggregate liabilities relating to the **Life Insurance Business of Geminia Insurance Company Limited** in respect of policies on the basis of valuation I have adopted is not less than what it would have been if the aggregate value had been calculated on the prescribed basis;
- b) That necessary steps as required under section 58(5)(a) were taken; and
- c) That I am satisfied that the value of assets I have adopted are on the basis of the auditor's certificates appended to the balancesheet, fully of the value so adopted.

The minimum net insurance liabilities required to be set aside by the Life Insurance Business of Geminia Insurance Company Limited as at the Valuation Date are **KES. 802.9 Million**.



Ezekiel Macharia Mburu FIA FeASK
Fellow of the Institute & Faculty of Actuaries (UK)
Fellow of the Actuarial Society of Kenya

March 2019

Date

Nairobi

Kenya

Actuary

2. EXECUTIVE SUMMARY

- 2.1. A summary of the valuation results and the change in surplus position by class of business written by Geminia is as shown below:

Summary of Valuation Results

Geminia Insurance Company				
Summary of Life Insurance Liabilities as at 31st December 2018 - Amounts in KES				
	Ordinary Life	Group Business	Deposit Administration	Total
Changes in Liability				
Net Liability at Last Valuation	634,309,550	27,903,143	-	662,212,693
Net Liability at This Valuation	635,029,264	144,255,155	23,575,493	802,859,912
Change in Liability	719,714	116,352,013	23,575,493	140,647,219
Changes in Surplus				
Surplus Brought Forward	(23,288,756)	167,181,249	-	143,892,493
Bonuses and Interest Declaration	-	-	-	-
Surplus Arising	90,337,923	(53,582,320)	(820,566)	35,935,037
Surplus Carried Forward	67,049,167	113,598,929	(820,566)	179,827,530

Surplus Distribution

- 2.2. The following table shows a summary of the recommended treatment for the total surplus as at the Valuation Date.

Geminia Insurance Company Limited	
Life Insurance Business Surplus Distribution - Amounts in KES	
Surplus Movement	
Surplus Brought Forward Unappropriated	143,892,493
Surplus Arising Over the Inter-Valuation Period	35,935,037
Total Surplus as at Current Valuation	179,827,530
Surplus Distribution	
To Interim Bonuses	31,709,475
Interest Declaration to Deposit Administration Schemes	-
To Deferred Profit Policies	-
To Shareholders	-
To Reserve Funds	148,118,055
Surplus Recommended for Distribution	179,827,530
Surplus Carried Forward Unappropriated	-

- 2.3. The total surplus before distribution as at the Valuation Date was **KES. 179.8M**.
- 2.4. Bonuses amounting to **KES. 31.7M** have been recommended for With-Profits policies at an interim simple bonus rate of **4%**, with the balance of the Surplus available being transferred to the Statutory Reserve Fund.

3. INTRODUCTION

Purpose

- 3.1. The assignment under consideration is *Provision of Appointed Actuary Services to Geminia Insurance Company Limited – the Assignment*.
- 3.2. The Assignment has been undertaken by Kenbright Actuarial & Financial Services ('KAFS'), in our capacity as the Appointed Actuary of Geminia Insurance Company Limited ('Geminia').
- 3.3. This report is a statutory report for submission to the Insurance Regulatory Authority ("The Authority") as required by the Fourth Schedule of the Insurance Act of Kenya and its Regulations ("The Insurance Act").
- 3.4. The report is solely for the use of and is only to be relied upon by Geminia and IRA. It describes the actuarial liabilities of the Life Insurance division of Geminia as at 31st December 2018.

Reliance and Limitations

- 3.5. This report is prepared exclusively for use by the Board and Management of Geminia, and for statutory reporting purposes.
- 3.6. The Appointed Actuary shall not be held liable to any third-party for the use of information, analysis and results presented in this report.

Scope

- 3.7. The Valuation Date is **31st December 2018**.
- 3.8. We have valued the liabilities of the life insurance business of Geminia in our capacity as the Appointed Actuary of the insurer and in line with the requirements of the IRA.
- 3.9. The Liabilities valued are composed of:
 - a) Best Estimate Liabilities; and
 - b) Risk Margin
- 3.10. The components of the liabilities are further described in the table below:

Technical Provisions	
Provision	Definition
Best Estimate (BE) Liability	Present Value of the expected future cash flows (<i>benefits and expenses less premiums</i>) based on best estimate assumptions, and discounted using the relevant risk-free interest rate*
Risk Margin	Additional margin over the BE liability values derived by modifying the BE assumptions by the prescribed margins where the assumptions are increased or decreased depending on which alternative gives rise to an increase in the liability of the class of policies concerned

*the risk-free interest rate is determined using the long-dated government bonds yields

Reinsurance Recoveries

- 3.11. To the best of our knowledge, there were no significant disputes reported between the company and its reinsurers as at the Valuation Date. The credit risk due to reinsurers has been considered in the risk-based capital adjustment.

Assumptions and Methodology

- 3.12. The assumptions and methodology used to determine insurance liabilities is in accordance with generally accepted actuarial principles and as prescribed by the IRA.
- 3.13. There was NO change in the valuation methodology used to determine the liabilities as at 31st December 2018 and the previous valuation dates (as at 31st Dec 2017).

4. DATA

Source of Data

- 4.1. In developing this report, we have relied upon data and information supplied by the Management of Geminia.
- 4.2. We have checked the data for general completeness and accuracy as per our knowledge of the company, local market practice, and international best practice.
- 4.3. The data provided was acceptable for use.

Data Provided and Reconciliation

- 4.4. The following data and information was provided for use at this valuation:

Data Provided		
Individual Policies	Group Policies	General Information
Unique Policy Identifier (Policy Number)	Type of cover / Product name	Products Information Sheets
Gender	Total sums assured in respect of each policy	Past Audited Accounts
Policy type (with or without profits)	Number of members covered in each policy	Past Actuarial Valuation Reports
Product Name	Total annual office premium	Past FCRs
Total basic sum assured	Sums reassured in respect of each policy	Past Solvency Reports
Total bonuses declared to the valuation date	Reassurance premiums in respect of each policy	Solvency Workings as at the Valuation Date
Office annual premium	Cover periods for each policy	Management Accounts as at the Valuation Date
Extra annual premium (if any)		
Premium payment frequency		
Date of birth of the assured life		
Issue date of the policy		
Maturity date		
Policy term in years		

Data Completeness

- 4.5. The data provided was checked for completeness and has been found to be sufficient for the exercise. No external data has been used for this exercise.

Data Credibility

- 4.6. We have assessed the credibility of the data provided and found it to be fit for purpose.
- 4.7. As part of the preparatory work for this assignment, the data was checked for reasonability and consistency with previous reports.
- 4.8. The following checks were carried out on the data:
 - a) **Source of Data:** The main source of data was the company's administration system which gave data relating to Individual Life, Group Life & Group Credit policies. The Database was tested for blank entries.
 - b) **Data Accuracy:** The data was checked for accuracy. Unusual items were identified, clarification sought from Management, erroneous information adjusted, and any duplicates removed; and
 - c) **Reasonability Checks:** The following reasonability checks were performed:
 - i. Office premiums exists and are less than the sum assured for all in-force policies;
 - ii. Policy start dates are before policy end dates; and
 - iii. Only active policies that came into force before 31st December 2018 were reviewed.

Data Consistency

4.9. We reconciled the data provided and used for the current valuation against that provided at the previous valuation. The movement observed is as summarised below.

Geminia Insurance Company Limited Ordinary Life Data Reconciliation as at 31st December 2018						
Product Classification at Current Valuation	Policy Movement over the Inter-Valuation Period					
	Valued at Previous Valuation	Lapses	Missing	New	Not Valued at Previous Valuation	Valued at Current Valuation
Anticipated Endowment Assurance Plan - With Profit (15 Years)	132	1	-	9	2	142
Anticipated Endowment Assurance Plan - With Profit (20 Years)	5	1	-		2	6
Anticipated Endowment Assurance Plan - With Profit (8-20 Years)	749	28	3	242	17	977
Bima Yangu Endowment Assurance Plan	11	-	-		-	11
Children's Endowment Assurance - With Profit	25	2	-	1	21	45
Education Endowment Assurance - WP - 100 Percent	138	3	-	49	7	191
Education Endowment Assurance - WP - 12.5 Percent	8	-	-	4	1	13
Education Endowment Assurance - WP - 16 Percent	4	-	-	4	-	8
Education Endowment Assurance - WP - 20 Percent	510	5	-	202	7	714
Education Endowment Assurance - WP - 25 Percent	32	1	-	5	-	36
Endowment Assurance Plan - Non-Profit (Option 1)	-	-	-	2	-	2
Endowment Assurance Plan - With Profit (Option 2)	361	1	4	124	93	573
Geminia Joint Life Assurance Plan - With Profit	2	-	-	-	-	2
Geminia Term Assurance	-	-	-	-	4	4
Gemstar Gold	15	1	-	-	-	14
Mwavuli Endowment Assurance Plan - Non-Profit	27	-	3	-	3	27
TwinSave Last Respect Plan - Non-Profit	88	-	-	67	21	176
*TwinSave Savings Plan - Non-Profit	1	-	1	66	104	170
Whole Life Assurance Plan - Limited Premium - Non-Profit	-	-	-	-	1	1
Whole Life Assurance Plan - Limited Premium - With Profit	3	-	-	-	-	3
Whole Life Assurance Plan - Unlimited Premium - Non-Profit	-	-	-	1	-	1
Whole Life Assurance Plan - Unlimited Premium - With Profit	-	-	-	-	8	8
Totals	2,111	43	11	776	291	3,124

*Najiboresha Rebranded to TwinSave Savings Plan

4.10. 291 policies valued at the current valuation were missing from the valuation data used at the previous valuation, while 11 policies valued previously have not been valued at the current valuation.

4.11. **2,057** policies were valued at both valuations. For these policies, there was significant deviations noted in the comparative policy level data provided, with some policies being classified differently.

Geminia Insurance Company Limited Comparison of Valuation Data Provided - Policies Valued at Both Valuations								
2018 Data Summaries					2017 Data Summaries			
No of Policies	Classification at Current Valuation	Sum Assured	Accrued Bonuses	Total Premium	Classification at Previous Valuation	Sum Assured	Accrued Bonuses	Total Premium
4	Anticipated Endowment Assurance Plan - With Profit (20 Years)	1,036,100	96,000	54,708	Anticipated Endowment Assurance Plan - With Profit (20 Years)	1,036,100	48,000	57,115
718	Anticipated Endowment Assurance Plan - With Profit (8-20 Years)	84,405,903	938,418	12,985,903	Anticipated Endowment Assurance Plan - With Profit (8-20 Years)	344,768,350	474,653	12,201,224
130	Anticipated Endowment Assurance Plan - With Profit (15 Years)	42,508,480	2,078,588	3,207,806	Anticipated Endowment Assurance Plan - With Profit (15 Years)	44,308,480	1,072,849	3,235,896
1		200,000	40,000	16,128		200,000	20,000	1,761
11	Bima Yangu Endowment Assurance Plan	1,100,000	96,000	13,200	Endowment Assurance Plan - With Profit (Option 2)	11,000,000	48,000	156,240
356	Endowment Assurance Plan - With Profit (Option 2)	309,035,172	37,086,402	18,457,678		389,542,737	18,420,701	18,019,376
88	TwinSave Last Respect Plan - Non-Profit	9,200,000	-	187,800		85,850,000	-	1,687,899
23	Children's Endowment Assurance - With Profit	56,500,000	8,260,000	1,760,511	Children's Endowment Assurance - With Profit	56,500,000	4,130,000	1,821,151
135	Education Endowment Assurance - WP - 100 Percent	28,545,407	2,592,089	3,122,730		47,205,656	1,286,045	3,183,772
8	Education Endowment Assurance - WP - 12.5 Percent	1,553,843	204,951	135,242		3,131,543	102,475	141,306
4	Education Endowment Assurance - WP - 16 Percent	404,400	18,672	40,592	Education Endowment Assurance - WP - 100 Percent	1,863,300	9,336	39,890
505	Education Endowment Assurance - WP - 20 Percent	107,584,626	2,681,162	11,475,140		194,999,285	1,378,252	11,384,777
31	Education Endowment Assurance - WP - 25 Percent	5,216,291	320,423	522,577		11,711,510	160,212	523,866
2	Geminia Joint Life Assurance Plan - With Profit	900,000	54,000	96,145	Geminia Joint Life Assurance Plan - With Profit	900,000	18,000	100,202
14	Gemstar Gold	6,800,000	-	683,249	Mwavuli Endowment Assurance Plan - Non-Profit	11,300,000	-	762,356
24	Mwavuli Endowment Assurance Plan - Non-Profit	10,124,977	-	1,221,226		12,824,977	-	1,188,514
3	Whole Life Assurance Plan - Limited Premium - With Profit	12,600,000	12,280,000	256,640	Whole Life Assurance Plan - Limited Premium - With Profit	12,600,000	-	506,698
2,057		677,715,199	66,746,705	54,237,275	Total	1,229,741,938	27,168,523	55,012,043

4.12. The most significant deviations were noted in the Sums Assured, with an overall reduction of over KES. 500M. As expected, the overall effect of this is a reduction in the liability values for these policies.

5. RECENT EXPERIENCE

5.1. The following table shows a summary of the Income Statements of the Geminia Life business for the years 2016 to 2018:

Geminia Insurance Company Limited - Life Business Revenue Accounts				
Amounts in KES.				
	2015	2016	2017	2018
Income				
Gross Earned Premium	92,530,653	288,015,700	178,135,644	572,111,561
Reinsurance Premium Ceded	26,018,376	23,103,583	62,213,855	361,032,699
Contributions Received	-	-	-	22,764,930
Net Premium Earned	66,512,277	264,912,117	115,921,789	233,843,792
Net Investment Income	58,767,028	69,304,995	105,767,052	117,121,968
Commissions Earned	5,107,119	5,037,309	13,278,348	71,212,129
Non-Premium Income	63,874,147	74,342,304	119,045,400	188,334,097
Total Income	130,386,424	339,254,421	234,967,189	422,177,889
Expenses				
Net Claims and Policyholders' Benefits Payable	82,274,350	314,631,066	166,761,496	297,074,355
Commission Payable	9,761,827	10,266,605	17,584,643	66,172,789
Operating and Other Expenses	9,844,712	14,356,750	48,419,898	58,930,745
Loss on Investment	28,505,535	-	-	-
Total Expenses	130,386,424	339,254,421	232,766,037	422,177,889
Profit Before Tax	-	-	2,201,152	-
Tax	-	-	2,201,152	-
Profit After Tax	-	-	-	-
Key Ratios				
Operating Expense / GEP	10.64%	4.98%	27.18%	10.30%
Commission / GEP	10.55%	3.56%	9.87%	11.57%
Ceding Ratio	28.12%	8.02%	34.92%	63.11%

- 5.2. Geminia's life business premium income was **KES. 572 M** in 2018 compared to **KES. 178 M** earned in 2017. The company's earned premium income mainly consisted of Group Business of **KES. 482 M** (84% of total premium income).
- 5.3. The insurer was licensed by IRA to conduct pension business in 2018 and received contributions of **KES. 22.8 M** under pension business.
- 5.4. The ratio of the company's operating expenses relative to premium income reduced from **27.2%** in 2017 to **10.3%** in 2018. This is mainly attributable to the higher increase in premium income relative to expenses incurred.
- 5.5. Geminia's ceding ratio was **63.1%** in 2018 compared to **34.9%** in 2017. This was mainly driven by higher cessions for Group Life Business in 2018.

6. ASSUMPTIONS

6.1. The IRA has issued guidance on assumptions to be used when valuing liabilities. The following table summarises the guidance given by IRA and the actual application of this for this valuation:

Geminia Insurance Company Limited Life Business Valuation as at 31 st Dec 2018 - Summary of Assumptions Used		
Key Assumption	IRA guidance	This Report
Mortality & Longevity	KE 2007:10 base mortality rates with an appropriate adjustment for company's experience	The KE 2007:10 tables used
Morbidity/Disability Rates	Based on the insurer's own experience, industry study or other relevant studies	Reinsurance experience rate used
Withdrawals	Expected experience of both existing and potential policyholders - lapse investigation using the insurers past data Experience from similar contracts and/or industrywide data (if available)	Industry experience used
Expenses and Commissions	Actuarial judgement	Office experience – Commissions Industry experience - Expenses
Investment Return/Discount Rate	Considerations for: <ul style="list-style-type: none"> – Nature of contract - with or without profits; – Size of the reserves; – Contract type – Premium payment frequency; – Assets mix; – Future expected economic changes; and – Level/extent of Investment guarantees 	NSE Government Bonds yield curve used, with considerations taken of the company's actual assets and business mix
Other Assumptions	Where data is insufficient, experience from similar contracts and/or industrywide data (<i>if available</i>)	Industry rates on disability benefits & hospital cash

6.2. A summary of the Best Estimate assumptions used to value the liabilities as at the Valuation Date is as follows:

6.3. In addition to the Best Estimate Liabilities, IRA has prescribed additional risk margins that are to be loaded to Best Estimate assumptions. A summary of the applicable risk margins is contained in the next section.

Summary of Valuation Assumptions	
Mortality	KE 2007-10 Tables for Assured Lives
Morbidity/Disability	Inhouse rates
Discount Rate	NSE Bonds yield curve as at 31 Dec 2018
Commissions	As provided by Geminia
Lapses/Withdrawals	
Year 1	40%
Year 2	25%
Year 3	2.5%
Expenses	
Annual Expenses per Policy	KES. 6,962
Expense Inflation	8%

7. METHODOLOGY

Definitions

- 7.1. The total life insurance liabilities of Geminia recommended in this report have been determined as follows:
- a) **Best Estimate Liabilities:** These have been determined as the Present Value of expected future cash flows (*benefits and expenses (including commissions) less premiums*) based on the Best Estimate assumptions, and discounted at the risk-free interest rate; and
 - b) **Risk Margins:** Additional margin over the Best Estimate liability values derived by modifying the BE assumptions by the prescribed margins, where the assumptions are increased or decreased depending on which alternative gives rise to an increase in the liability of the class of policies concerned.

Insurance Classes

- 7.2. The reserves have been determined separately for the following insurance lines written by Geminia and as prescribed in the Regulations to the Insurance Act of Kenya:
- a) Ordinary Life;
 - b) Group Life and Group Credit; and
 - c) Deposit Administration.

Best Estimate Liability Computation

Ordinary Life Business

- 7.3. The Best Estimate liability has been determined as the present value of expected future cash flows, discounted using the "risk-free" interest rate in respect of:
- a. Basic benefits for mortality, morbidity, lapses, withdrawals, surrenders and maturities excluding prescribed margins and discretionary margins, if any;
 - b. Future commissions, expenses and expense inflation, excluding prescribed margins and discretionary margins, if any;
 - c. Future costs of any guarantees that have been given under the contract, less future expense deductions, risk benefit premiums and management fees to be levied; and
 - d. Any other benefits that are in line with the reasonable expectations of policyholders and any established practices of Geminia for payment of benefits.

Group Life Business

- 7.4. For Group business, the Best Estimate liability has been determined as the sum of the following:
- a) Unearned Premium Reserves (UPR);
 - b) Incurred But Not Reported (IBNR) claims reserves; and
 - c) Additional Unexpired Risk Reserves (AURR).

Deposit Administration Business

- 7.5. For Deposit Administration business, the liability has been determined as the accumulation of the contributions and transfers made into the Fund, plus interest earned on the same at the guaranteed interest rate of 8%.

Risk Margins

- 7.6. The Risk Margin is intended to increase the liabilities by an amount that reflects the risk that the actual experience may deviate from the Best Estimate assumptions.
- 7.7. The risk margins loaded onto the Best Estimate assumptions used for this valuation are as prescribed by the IRA:

Assumption	Risk Margin	Treatment
Mortality	10%	Increase
Longevity	10%	Decrease
Morbidity/Disability	10%	Increase in inception rate
	5%	Decrease in recovery rate
Lapses	25%	Increase/Decrease as applicable
Interest rate	20%	Decrease
Surrenders	10%	Increase/Decrease as applicable
Expenses	10%	Increase
Expense inflation	10%	Increase

8. RESULTS

Insurance Liabilities

8.1. The net life insurance liabilities of Geminia as at the Valuation Date have been estimated as **KES 802.9 M**.

8.2. A Surplus of **KES. 35.9 M** arose over the inter-valuation period.

Geminia Insurance Company							
Summary of Life Insurance Liabilities as at 31st December 2018 - Amounts in KES							
	2017			2018			
	Ordinary Life	Group Business	Total	Ordinary Life	Group Business	Deposit Administration	Total
Changes in Liability							
Net Liability at Last Valuation	334,781,432	19,174,556	353,955,988	634,309,550	27,903,143	-	662,212,693
Net Liability at This Valuation	634,309,550	27,903,143	662,212,693	635,029,264	144,255,155	23,575,493	802,859,912
Change in Liability	299,528,118	8,728,587	308,256,705	719,714	116,352,013	23,575,493	140,647,219
Changes in Surplus							
Surplus Brought Forward	230,529,831	120,934,992	351,464,823	(23,288,756)	167,181,249	-	143,892,493
Bonuses and Interest Declaration	-	-	-	-	-	-	-
Surplus Arising	(253,818,587)	46,246,257	(207,572,330)	90,337,923	(53,582,320)	(820,566)	35,935,037
Surplus Carried Forward	(23,288,756)	167,181,249	143,892,493	67,049,167	113,598,929	(820,566)	179,827,530

Surplus Distribution

8.4. The following table shows a summary of the recommended treatment for the total surplus as at the Valuation Date.

Geminia Insurance Company Limited	
Life Insurance Business Surplus Distribution - Amounts in KES	
Surplus Movement	
Surplus Brought Forward Unappropriated	143,892,493
Surplus Arising Over the Inter-Valuation Period	35,935,037
Total Surplus as at Current Valuation	179,827,530
Surplus Distribution	
To Interim Bonuses	31,709,475
Interest Declaration to Deposit Administration Schemes	-
To Deferred Profit Policies	-
To Shareholders	-
To Reserve Funds	148,118,055
Surplus Recommended for Distribution	179,827,530
Surplus Carried Forward Unappropriated	-

8.5. The total surplus before distribution as at the Valuation Date was **KES. 179.8M.**

8.6. Bonuses amounting to **KES. 31.7M** have been recommended for With-Profits policies at an interim simple bonus rate of **4%**.

Reinsurance Recoveries

8.7. In determining the reinsurers' share of the gross liabilities, we applied expected recovery rates based on the company's existing reinsurance strategy and expected claims experience.

8.8. Reinsurers' share of the insurance liabilities as at the Valuation Date, have been estimated as **KES. 289.5M.**

9. CAPITAL ADEQUACY

- 9.1. The Finance Act of 2015 revised the Capital requirements for insurers operating in Kenya. A key highlight was the introduction of the Risk Based Capital requirements.
- 9.2. The capital requirements for life insurance companies is defined as the higher of:
- Four hundred million shillings;
 - 5% of the total liabilities of the life business for the financial year; and
 - The Risk Based Capital determined in line with Legal Notice 39 – 2017.
- 9.3. The Capital Adequacy Ratio (CAR) for a life insurer is determined as a ratio of the Available Capital to the Required Capital.
- 9.4. A summary of the Capital position of Geminia Life business is as follows:

Geminia Insurance Company Limited Capital Adequacy Assessment (Amounts in KES Millions)			
RISK BASED CAPITAL - COMPONENTS (in KES millions)			31-Dec-18
A	Credit Risk		108
B	Market Risk		-
C	Insurance Risk		40
D	Operational Risk Charge		35
E	Diversification Benefits		(33)
F = SUM (A .. E)		Risk Based Capital	150
REQUIRED CAPITAL (RISK BASED CAPITAL) (in KES millions)			
G	Minimum Capital of KES 400m		400
H	5% of Total Best Estimate Reserves		49
I	Calculated Risk Based Capital		150
J= Max (G, H, I)		Minimum Required Capital	400
SOLVENCY RATIO (in KES millions)			
K	Available Capital		267
L	Required Capital		400
M= K/L		Solvency Ratio / Capital Adequacy Ratio (CAR)	67%
<i>N = K - L</i>		<i>At 100% Minimum Capital: Surplus/(Deficit)</i>	<i>(133)</i>
<i>M = K - 2L</i>		<i>At 200% Minimum Capital: Surplus/(Deficit)</i>	<i>(533)</i>

- 9.5. The Capital Adequacy Ratio of Geminia's Life Insurance Business is **67%** as at the Valuation Date. This is below the statutory minimum required level of 100%.
- 9.6. The additional capital required to reach the statutory minimum level as at the Valuation Date is **KES. 133M**.

10. SCHEDULES

10.1. The following pages show the information that is required under the Insurance Act and specified in the various Schedules to the Insurance Regulations

FOURTH SCHEDULE – SECTION II

Abstract of the Report in respect of Long Term Insurance Business prepared in accordance with the Fourth Schedule of the Insurance Act 1984.

1. The Actuarial Valuation was carried out as at **31st December 2018**. The previous valuation was undertaken as at 31 December 2017.

2.

a. The principles for the actuarial valuation was determined using generally accepted actuarial methods as set out below:

i) For deposit administration, personal pension plan and group investor business, the reserve has been established as the amount of fund credits of policyholders inclusive of the guaranteed investment return but exclusive of any additional returns as at the Valuation Date.

ii) For Assurances, the liabilities were determined on a prospective basis in which the present value of future cash inflows (gross premium) was deducted from the present value of future cash outflows (sums assured, bonus, and expenses (*management expenses & commissions*)).

iii) For Group temporary assurance payable by single premium, the reserve is equal to the proportion of the unexpired office premium.

i) For Group Life and Group Creditor business, the premium reserve has been determined as the Unearned Premium Reserve (UPR) & Unexpired Risk Reserve (URR) as at the Valuation Date. The premium reserves are gross of reinsurance. Where the combined ratio is less than 100%, the AURR was set to 0%.

iv) For paid up policies, the liabilities were determined as the higher of the present value of the surrender value and the present value of benefits (sum assured & vested bonuses).

v) The Life Assurance Fund has been included as shown in the draft audited report and accounts.

b. The death benefits are assumed to be paid immediately on death and gross premium payable annually and in advance.

Policies are classified for valuation purposes according to age next birthday at entry. Benefit & premium terms were provided based on integral number of years.

c. The valuation age used for the purposes of valuation was Age Next Birthday at entry plus curtate duration.

The valuation gender used for the purposes of the valuation was the Gender provided in the data.

The period from the Valuation Date to maturity date was set by considering Original Term of the policy and curtate duration at the Valuation Date.

The future premium term has been taken as the original premium term less the curtate duration as at the valuation date.

d. The future bonuses are assumed to be provided for on a discretionary basis unless guaranteed or expected based on reasonable expectations.

- e.
 - i. It is assumed that the premiums are fully collected with no adjustments for receivables.
 - ii. The premium values were annualised where the frequency was not annual (*say, monthly*).
- f.
 - i. It is assumed that deaths occur on average during the middle of the year. Immediate payment of claims on proof of death has been allowed by increasing the death benefit component to allow for half a year's interest.
 - ii. Future expenses and profits for paid up policies & limited payment policies have been provided for explicitly through the valuation assumptions.
 - iii. No liability arises under lapsed policies.
 - iv. The reserve under waiver of premium benefit is set as 100% of the future premium payable up to the policy maturity date.
- g. No policy was treated as an asset. All negative gross premium reserves were zeroised.
- h. For policies subject to extra premium for whatever reason including impaired lives, a reserve equal to one year's extra premium is held in addition to the normal reserve.

For policies subject to age or gender rating, the valuation age and valuation gender were taken as the rated age/gender.

- i. The actuarial valuation was undertaken in Kenya Shillings. There were no liabilities in other currencies.

3. The GPV basis has been used to determine the liabilities as at the Valuation Date. A summary of the Best Estimate assumptions used is as shown in the table below:

Summary of Valuation Assumptions	
Mortality	KE 2007-10 Tables for Assured Lives
Morbidity/Disability	Inhouse rates
Discount Rate	NSE Bonds yield curve as at 31 Dec 2018
Commissions	As provided by Geminia
Lapses/Withdrawals	
Year 1	40%
Year 2	25%
Year 3	2.5%
Expenses	
Annual Expenses per Policy	KES. 6,962
Expense Inflation	8%

Group Business

The premium reserves have been determined as the unearned annual gross premium and additional AURR also included as the expected cost of unexpired risk is expected to exceed the UPR.

For Deposit Administration business, the liability has been determined as the accumulation of the contributions and transfers made into the Fund, plus interest earned on these at the guaranteed interest rate of 8%.

4. The Best Estimate liabilities were increased in accordance with the following risk margins as prescribed by IRA:

Assumption	Risk Margin	Treatment
Mortality	10%	Increase
Longevity	10%	Decrease
Morbidity/Disability	10%	Increase in inception rate
	5%	Decrease in recovery rate
Lapses	25%	Increase/Decrease as applicable
Interest rate	20%	Decrease
Surrenders	10%	Increase/Decrease as applicable
Expenses	10%	Increase
Expense inflation	10%	Increase

Surplus Distribution

5. The basis adopted for distribution of surplus between Geminia and the policyholders is determined by the Board on the advise of the Appointed Actuary, The basis adopted complied with the requirements of the Insurance Act and also complies with the provisions of the Insurer's Articles of Association.
- The general principles adopted in the distribution of surplus among policy owners was determined by the Directors on the advice of the Appointed Actuary;
 - Bonus is only allocated upon payment of one year's full premium;
 - Bonus is allocated in respect of each year's premium paid; and
 - Bonus vests immediately on allocation.
6. The following table gives a summary of the surplus position:

Geminia Insurance Company				
Summary of Life Insurance Liabilities as at 31st December 2018 - Amounts in KES				
	Ordinary Life	Group Business	Deposit Administration	Total
Changes in Liability				
Net Liability at Last Valuation	634,309,550	27,903,143	-	662,212,693
Net Liability at This Valuation	635,029,264	144,255,155	23,575,493	802,859,912
Change in Liability	719,714	116,352,013	23,575,493	140,647,219
Changes in Surplus				
Surplus Brought Forward	(23,288,756)	167,181,249	-	143,892,493
Bonuses and Interest Declaration	-	-	-	-
Surplus Arising	90,337,923	(53,582,320)	(820,566)	35,935,037
Surplus Carried Forward	67,049,167	113,598,929	(820,566)	179,827,530

7. Surplus has been recommended for distribution to policyholders at the current valuation, with the balance of the surplus being transferred to the Statutory Reserve Fund:

Geminia Insurance Company Limited	
Life Insurance Business Surplus Distribution - Amounts in KES	
Surplus Movement	
Surplus Brought Forward Unappropriated	143,892,493
Surplus Arising Over the Inter-Valuation Period	35,935,037
Total Surplus as at Current Valuation	179,827,530
Surplus Distribution	
To Interim Bonuses	31,709,475
Interest Declaration to Deposit Administration Schemes	-
To Deferred Profit Policies	-
To Shareholders	-
To Reserve Funds	148,118,055
Surplus Recommended for Distribution	179,827,530
Surplus Carried Forward Unappropriated	-

8. No surplus was recommended for distribution as at the previous valuation.
9. Bonuses are not allowed to be surrendered in cash.
10. Specimen policy reserve and surrender values held according to the methods adopted in the valuation are provided in form INS 57-3 attached in this report.
11. The Capital Adequacy Ratio of Geminia's Life insurance Business was **67%** as at the Valuation Date.



Ezekiel Macharia Mburu FIA FeASK
Fellow of the Institute & Faculty of Actuaries (UK)
Fellow of the Actuarial Society of Kenya

Nairobi
Date: March 2019

FORM NO: INS 57-1

Summary of Data and Valuation of Policies as at 31 December 2018
Class of Long Term Business: Ordinary and Superannuation, All Amounts in KES.

Type of Insurance	Amount of Office Premiums	Value of Benefits	Value of Bonuses	Value of Expenses	Value of Commissions	Value of Office Premiums	BE Liability Before Zeroisation	Negative Reserves	Liability After Zeroisation	Prescribed Risk Margin	Reinsurance	Net Liability
With Immediate Participation in Profits												
Endowment Assurance	27,358,052	116,825,768	49,925,575	16,849,740	12,622,193	125,481,654	70,741,622	12,229,695	82,971,318	25,145,076	3,070,978	105,045,416
Education Endowment	21,921,067	82,258,298	22,553,081	35,988,643	21,231,164	109,062,545	52,968,642	5,040,738	58,009,379	21,471,524	-	79,480,904
Anticipated Endowment	24,089,324	143,501,611	21,578,474	36,903,684	24,690,870	107,214,902	119,459,737	-	119,459,737	28,345,312	551	147,804,498
Child Deferred	2,724,403	22,007,620	12,733,655	1,758,629	413,869	14,536,174	22,377,599	2,915,381	25,292,980	5,206,244	511,432	29,987,793
Bima Yangu Endowment	13,200	659,442	195,823	274,752	1,915	38,764	1,093,169	-	1,093,169	136,594	-	1,229,763
Joint Life Endowment	96,145	144,898	37,479	69,969	19,092	431,740	-160,302	160,302	-	-	-	-
Whole Life Assurance	362,048	3,740,022	-67,665	480,888	4,428	783,399	3,374,274	127,402	3,501,676	1,177,910	-	4,679,586
Total	76,564,239	369,137,660	106,956,422	92,326,305	58,983,532	357,549,178	269,854,740	20,473,519	290,328,259	81,482,660	3,582,960	368,227,959
Without Profits Individual Business												
Endowment Assurance	28,380	56,691	-	47,473	45,816	91,632	58,348	-	58,348	11,627	-	69,975
Joint Life Endowment	1,453,981	5,885,175	-	1,074,259	519,604	7,564,313	-85,275	2,327,238	2,241,964	189,694	-	2,431,657
Term Assurance	1,922,194	2,796,125	-	121,068	1,958,844	10,603,799	-5,727,763	5,735,208	7,445	3,938	3,210,370	-3,198,987
TwinSave	251,579,457	271,907,322	-	5,787,885	1,116,181	3,037,307	275,774,081	104,078	275,878,159	21,057,956	30,050,309	266,885,805
Gemstar Gold	683,249	2,472,097	-	565,629	91,888	3,909,447	-779,833	1,075,803	295,970	188,957	-	484,927
Whole Life Assurance	5,620	19,481	-	94,934	372	22,337	92,451	-	92,451	33,680	-	126,131
Total	255,672,881	283,136,891	-	7,691,248	3,732,705	25,228,836	269,332,009	9,242,327	278,574,336	21,485,852	33,260,679	266,799,509
Individual Business Riders	4,100,256	2,991,981	-	-	-	21,477,494	-18,485,513	18,485,837	324	1,472	-	1,796
Without Profits Group Business:												
Group Life	497,234,829	355,631,698	-	-	-	-	355,631,698	-	355,631,698	24,286,393	247,078,875	132,839,216
Group Credit	26,076,281	15,913,023	-	-	-	-	15,913,023	-	15,913,023	1,093,134	5,590,217	11,415,940
Deposit Administration	-	-	-	-	-	23,575,493	23,575,493	-	23,575,493	-	-	23,575,493
Total	523,311,110	371,544,721	-	-	-	23,575,493	395,120,214	-	395,120,214	25,379,526	252,669,092	167,830,648
Total Insurances	859,648,486	1,026,811,253	106,956,422	100,017,553	62,716,237	427,831,001	915,821,450	48,201,683	964,023,133	128,349,511	289,512,731	802,859,912

FORM NO. INS 57-2

Valuation Balance Sheet, All Amounts in KES.
Actuarial Valuation as at 31 December 2018

Gemina Insurance Company Limited				
Life Insurance Business Form INS 57-2 as at 31st December 2018 - Amounts in KES				
Class of Business	Ordinary Life	Group Business	Deposit Administration	Total
Net liability as shown in Form INS 57-1	635,029,264	144,255,155	23,575,493	802,859,912
Surplus before Bonus Distribution	67,049,167	113,598,929	-	180,648,096
Total	702,078,431	257,854,084	23,575,493	983,508,008
Insurance Fund as per Revenue Account	702,078,431	257,854,084	22,754,927	982,687,442
Deficit	-	-	820,566	820,566
Total	702,078,431	257,854,084	23,575,493	983,508,008



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Fellow of the Actuarial Society of Kenya

Nairobi
Date: March 2019

Form NO. INS.57-3

Specimen Policy Reserve Values and Minimum Surrender Values under a Whole Life Policy
with Sum Assured of KES. 1,000 with Premiums Limited to 20 Years, All amounts in Kenya Shillings
Actuarial Valuation as at 31 December 2018

Whole Life Policy	Age At Entry 20		Age At Entry 30		Age At Entry 40		Age At Entry 50	
	Years of Premiums Paid	Reserve Value	Minimum Surrender Value	Reserve Value	Minimum Surrender Value	Reserve Value	Minimum Surrender Value	Reserve Value
1	0	0	5	0	11	0	18	0
2	11	0	20	0	35	0	47	0
3	22	0	36	0	55	0	76	0
4	34	13	53	22	78	38	105	61
5	46	18	70	29	102	50	136	80
6	58	22	88	37	127	63	167	100
7	71	27	106	46	152	77	198	122
8	85	33	125	55	178	93	231	145
9	99	39	145	65	204	109	264	169
10	114	45	166	77	231	128	297	196
15	197	88	280	150	380	240	478	352
20	297	154	414	255	551	392	692	551



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Nairobi
Date: March 2019

FORM NO. INS.57-3

Specimen Policy Reserve Values and Minimum Surrender Values under an Endowment Policy maturing at age 55, and with Sum Assured of KES. 1,000, All amounts in Kenya Shillings
Actuarial Valuation as at 31st December 2018

Whole Life Policy	Age At Entry 20		Age At Entry 30		Age At Entry 40		Age At Entry 50	
Years of Premiums Paid	Reserve Value	Minimum Surrender Value	Reserve Value	Minimum Surrender Value	Reserve Value	Minimum Surrender Value	Reserve Value	Minimum Surrender Value
1	4	0	14	0	41	0	175	0
2	18	0	40	0	93	0	367	0
3	33	0	66	0	147	0	568	0
4	48	18	94	45	204	136	779	751
5	64	23	122	59	263	180	1000	1000
6	81	30	152	75	324	230		
7	98	37	183	93	387	285		
8	116	45	215	113	453	346		
9	135	53	248	136	522	414		
10	155	63	283	160	593	488		
15	265	127	476	325	1000	1000		
20	400	228	711	587				



Ezekiel Macharia Mburu FIA FeASK

Fellow of the Institute & Faculty of Actuaries (UK)
Fellow of the Actuarial Society of Kenya

Nairobi
Date: March 2019

FOURTH SCHEDULE

DATA ACCURACY STATEMENT

This statement relates to the Actuarial Valuation of the Life Insurance business of Geminia Insurance Company as at 31st December 2018.

STATUS

I, Ezekiel Macharia Mburu of Kenbright Actuarial & Financial Services Limited, ACK Garden House, Block D, Ground Floor, 1st Ngong Avenue, P.O. Box 28281, confirm that I am a duly qualified Actuary in terms of Section 2 of the Insurance Act.

I am a Fellow of The Actuarial Society of Kenya (TASK) and the Institute & Faculty of Actuaries (IFoA).

PURPOSE

The purpose of this certificate is to confirm that an actuarial investigation has been conducted in terms of Section 57 and 58 of the Insurance Act as at 31st December 2018.

STATEMENT

I certify that;

- a) I have been provided with the attached statement by the Principal Officer of Geminia Insurance Company Limited certifying that the data provided for the actuarial valuation as at 31st December 2018 was accurate and complete; and
- b) I have checked a random sample of the valuation data for reasonableness and consistency. I have also performed actuarial and other checks to ascertain the accuracy of the data.



Ezekiel Macharia Mburu FIA FeASK

Fellow of the Institute & Faculty of Actuaries (UK)
Fellow of the Actuarial Society of Kenya

Nairobi

Date: March 2019

DATA ACCURACY STATEMENT

FIFTH SCHEDULE – STATEMENT OF LONG TERM BUSINESS

1	The insurer has used office premium rates that are in line with the rates previously submitted to the Insurance Regulatory Authority (IRA)
2 - 5	Attached Schedules
6	None
7	None

FIFTH SCHEDULE

Details of In-force Business as at 31st December 2018
All Amounts In KES

Anticipated Endowment Assurance Plan - With Profit (15 Years)				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2022	1	100,000	36,000	7,492
2023	1	500,000	160,000	38,312
2024	4	1,579,750	431,140	119,563
2025	3	1,749,350	419,844	130,348
2026	3	750,000	150,000	58,155
2027	3	750,000	120,000	56,677
2028	10	2,598,000	255,840	196,803
2029	17	6,119,221	489,538	460,975
2030	19	6,305,659	252,226	477,412
2031	41	11,852,800	-	893,459
2032	31	11,003,700	-	830,543
2033	9	3,250,000	-	246,145
Total	142	46,558,480	2,314,588	3,515,883

Anticipated Endowment Assurance Plan - With Profit (20 Years)				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2027	1	950,000	342,000	52,293
2033	3	800,000	96,000	42,393
2037	2	2,236,100	-	119,727
Total	6	3,986,100	438,000	214,413

Anticipated Endowment Assurance Plan - With Profit (8-20 Years)				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2019	7	1,174,000	368,720	156,686
2020	4	261,800	60,892	32,137
2021	1	200,000	56,000	22,411
2022	3	2,169,955	762,793	207,457
2023	6	922,972	36,919	155,111
2024	125	15,932,681	333,098	2,615,500
2025	456	49,461,043	61,742	8,255,289
2026	217	30,433,122	-	4,959,062
2027	55	8,711,330	2,104	1,152,237
2028	32	6,545,200	-	837,081
2029	12	3,085,700	-	335,174
2030	30	6,901,000	36,052	698,345
2031	9	2,011,222	12,098	187,094
2032	14	6,891,760	-	629,599
2033	5	1,235,200	24,000	102,358
2036	1	194,000	-	13,486
Total	977	136,130,985	1,754,418	20,359,027

Bima Yangu Endowment Assurance Plan				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2020	1	100,000	24,000	1,200
2021	3	300,000	60,000	3,600
2025	3	300,000	12,000	3,600
2026	4	400,000	-	4,800
Total	11	1,100,000	96,000	13,200

Children's Endowment Assurance - With Profit				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2019	1	1,000,000	920,000	31,320
2020	2	2,450,000	2,074,000	94,645
2022	4	5,250,000	3,570,000	217,495
2024	2	2,000,000	1,200,000	87,710
2025	2	3,000,000	1,120,000	165,693
2026	1	1,000,000	840,000	28,507
2027	1	1,000,000	640,000	28,810
2028	1	1,000,000	240,000	61,260
2029	1	1,500,000	660,000	61,892
2030	2	2,500,000	1,100,000	85,944
2031	2	3,500,000	1,220,000	129,282
2032	3	3,499,000	1,819,440	110,797
2034	1	1,000,000	360,000	35,012
2035	3	8,000,000	1,360,000	333,938
2036	1	500,000	100,000	16,058
2037	1	500,000	120,000	14,156
2038	3	1,500,000	320,000	48,246
2039	3	7,000,000	1,480,000	211,649
2043	2	4,000,000	640,000	113,251
2045	1	2,000,000	320,000	51,654
2046	1	5,000,000	600,000	135,036
2047	1	5,000,000	600,000	128,247
2048	2	7,000,000	680,000	186,690
2049	1	3,000,000	360,000	69,447
2053	3	12,117,500	1,200,000	277,663
Total	45	84,316,500	23,543,440	2,724,403

Education Endowment Assurance - WP - 100 Percent				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2019	3	303,400	84,952	40,457
2020	1	69,800	16,752	9,480
2021	5	1,098,747	232,549	142,596
2022	6	1,768,561	370,170	209,675
2023	4	1,000,000	214,000	106,954
2024	5	901,385	192,277	87,828
2025	4	1,943,658	133,746	244,821
2026	18	3,511,722	461,205	363,154
2027	57	12,908,734	409,374	1,606,897
2028	48	8,775,400	229,064	1,076,427
2029	11	2,810,200	48,000	301,433
2030	11	3,709,800	200,000	345,897
2031	12	2,738,000	-	262,890
2032	5	3,098,300	-	269,246
2033	1	129,900	-	11,075
Total	191	44,767,607	2,592,089	5,078,829

Education Endowment Assurance - WP - 12.5 Percent				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2022	1	150,000	30,000	16,269
2024	2	350,000	70,000	32,259
2027	4	831,243	104,951	70,858
2028	2	182,000	-	21,444
2030	1	619,700	-	55,309
2031	2	374,800	-	33,181
2033	1	222,600	-	15,855
Total	13	2,730,343	204,951	245,175

Education Endowment Assurance - WP - 16 Percent				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2020	1	77,800	18,672	9,453
2027	1	84,300	-	10,494
2030	3	726,900	-	71,707
2032	1	121,300	-	9,596
2033	1	168,000	-	13,144
2034	1	152,300	-	11,118
Total	8	1,330,600	18,672	125,512

Education Endowment Assurance - WP - 20 Percent				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2019	2	216,500	68,620	26,968
2021	1	94,250	26,390	11,033
2022	2	158,254	25,321	22,508
2023	2	383,361	52,563	53,686
2024	4	1,120,000	96,400	152,828
2025	15	3,596,158	218,075	487,282
2026	60	11,228,710	225,785	1,537,351
2027	158	23,132,577	326,560	3,105,541
2028	174	24,564,776	223,460	3,230,620
2029	52	10,318,860	284,945	1,093,337
2030	58	15,520,600	564,132	1,495,786
2031	56	16,063,500	337,152	1,460,108
2032	53	14,450,175	172,102	1,240,897
2033	42	11,139,300	45,856	931,452
2034	17	3,999,100	-	323,598
2035	16	6,319,530	49,801	471,912
2036	1	2,400,000	-	179,175
2038	1	339,800	-	22,344
Total	714	145,045,451	2,717,162	15,846,425

Education Endowment Assurance - WP - 25 Percent				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2019	1	250,000	70,000	32,579
2022	1	100,000	24,000	11,160
2024	1	86,691	6,935	11,049
2025	1	87,200	3,488	10,988
2026	4	667,500	60,000	72,154
2027	7	774,400	40,000	84,531
2028	11	2,241,700	116,000	233,050
2029	5	669,200	-	65,154
2030	4	957,400	-	87,873
2031	1	184,600	-	16,586
Total	36	6,018,691	320,423	625,126

Endowment Assurance Plan - Non Profit (Option 1)				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2023	2	106,500	-	28,380
Total	2	106,500	-	28,380

Endowment Assurance Plan - With Profit (Option 2)				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2019	3	4,020,472	2,041,638	332,336
2020	12	3,690,879	1,431,455	616,465
2021	39	7,572,000	2,012,528	1,346,413
2022	116	18,057,800	4,160,744	3,455,300
2023	106	21,432,579	5,596,000	3,686,040
2024	19	4,296,213	862,073	501,827
2025	40	17,236,100	5,371,188	1,386,476
2026	44	12,532,000	798,336	1,344,991
2027	52	24,651,800	3,691,400	2,230,050
2028	28	12,578,300	2,776,000	933,074
2029	14	8,338,742	2,412,994	532,043
2030	12	14,614,700	4,758,836	785,374
2031	8	17,825,211	4,165,520	963,692
2032	8	4,809,250	317,704	302,246
2033	8	18,914,500	3,611,180	919,894
2034	10	16,810,000	3,070,000	742,032
2035	2	8,000,000	2,520,000	275,406
2036	6	50,250,000	10,090,000	1,864,851
2037	11	24,143,700	2,760,000	1,012,827
2038	7	25,050,000	3,282,000	1,002,768
2039	2	9,000,000	920,000	329,678
2040	5	19,050,000	1,242,000	718,894
2041	5	21,999,990	2,399,998	735,181
2042	4	6,999,999	840,000	222,523
2043	2	10,000,000	600,000	341,618
2045	2	5,500,000	20,000	183,834
2046	8	21,999,999	2,400,000	592,217
Total	573	409,374,234	74,151,594	27,358,052

Geminia Joint Life Assurance Plan - With Profit				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2025	1	450,000	36,000	60,251
2030	1	450,000	18,000	35,894
Total	2	900,000	54,000	96,145

Geminia Term Assurance				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2022	2	32,000,000	-	227,600
2027	1	40,000,000	-	916,400
2032	1	59,677,419	-	778,194
Total	4	131,677,419	-	1,922,194

Gemstar Gold				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2024	1	100,000	-	19,919
2025	1	100,000	-	19,219
2026	1	300,000	-	50,395
2027	1	500,000	-	77,967
2028	1	500,000	-	70,602
2031	4	1,200,000	-	138,113
2032	1	100,000	-	8,677
2037	4	4,000,000	-	298,357
Total	14	6,800,000	-	683,249

Mwavuli Endowment Assurance Plan - Non Profit				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2019	1	1,000,000	-	85,688
2020	1	1,000,000	-	72,246
2026	3	645,400	-	117,659
2027	4	1,003,300	-	238,488
2030	1	169,377	-	23,873
2031	1	300,000	-	47,954
2032	3	1,242,400	-	177,443
2033	2	1,759,400	-	214,416
2036	6	1,005,100	-	95,053
2037	3	3,000,000	-	232,755
2039	2	2,000,000	-	148,406
Total	27	13,124,977	-	1,453,981

TwinSave Last Respect Plan - Non Profit				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2020	56	5,600,000	-	88,700
2021	48	4,800,000	-	134,400
2022	52	5,600,000	-	78,000
2023	20	2,000,000	-	36,400
Total	176	18,000,000	-	337,500

TwinSave Savings Plan - Non Profit				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2020	56	5,535,679	-	1,201,670
2021	47	336,644,290	-	229,606,038
2022	52	19,824,801	-	2,533,918
2023	20	39,280,623	-	17,893,531
Total	175	401,285,392	-	251,235,157

Whole Life Assurance Plan - Limited Premium - Non-Profit				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2023	1	200,000	-	4,900
Total	1	200,000	-	4,900

Whole Life Assurance Plan - Limited Premium - With Profit				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
1992	1	1,000,000	1,480,000	30,200
2011	1	1,600,000	1,600,000	35,440
2019	1	10,000,000	9,200,000	191,000
Total	3	12,600,000	12,280,000	256,640

Whole Life Assurance Plan - Unlimited Premium - Non-Profit				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
2118	1	67,300	-	720
Total	1	67,300	-	720

Whole Life Assurance Plan - Unlimited Premium - With Profit				
Maturity Year	Number	Sum Assured	Existing Bonuses	Office Premium
1992	4	2,500,000	2,400,000	44,434
1993	2	1,500,000	1,380,000	9,794
1996	1	2,000,000	1,600,000	10,830
2009	1	1,000,000	280,000	40,350
Total	8	7,000,000	5,660,000	105,408

EIGHT SCHEDULE

ACTUARY'S CERTIFICATE Actuarial Valuation as at 31 December 2018

I, Ezekiel Macharia Mburu of Kenbright Actuarial & Financial Services Limited, ACK Garden House, Block D, Ground Floor, 1st Ngong Avenue, P.O. Box 28281, being an Actuary duly qualified in terms of Section 2 of the Insurance Act having conducted an investigation in terms of section 57 and 58 of that Act, do hereby certify as under:

- a) That, in my opinion, the value placed upon the aggregate liabilities relating to Ordinary Life, Group Life and Superannuation Funds of Geminia Insurance Company of Kenya Limited in respect of policies on the basis of valuation adopted by me is not less than it would have been if the aggregate value had been calculated on the minimum basis prescribed;
- b) that necessary steps as required under Section 58 (5) (a) of the Insurance Act were taken; and
- c) that I am satisfied that the value of assets adopted by me are, on the basis of the auditor's certificates appended to the balance sheet, fully of the value so adopted.



Ezekiel Macharia Mburu FIA FeASK
Fellow of the Institute & Faculty of Actuaries (UK)
Fellow of the Actuarial Society of Kenya

Nairobi
Date: March 2019

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About Us

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