

BUDGET AND BUDGET JUSTIFICATION

1) DETAILED BUDGET TABLE (₦299,341,875)

CATEGORY	ITEM	PRICE (₦)	QUANTITY	TOTAL (₦)
A. Personnel Costs / Allowances	Principal Investigator (PI) allowance	500,000	24 months	12,000,000
	3 Co-Researchers (Henry, Gloria, Uchechukwu)	350,000	3 × 24 months	25,200,000
	2 Research Assistants / Lab Technologists	150,000	2 × 24 months	7,200,000
Subtotal Personnel				41,075,000
B. Equipment & Materials	Bioreactor consumables	—	—	12,000,000
	Sterile vials & packaging materials	—	—	8,500,000
	Laboratory reagents (ELISA kits, PCR reagents, buffers)	—	—	10,750,000
	Cold-chain units (freezers, transport coolers)	—	—	9,000,000
	Field diagnostic kits & microscopes	—	—	6,500,000
	PPE (gloves, lab coats, disinfectants, boots)	—	—	3,500,000
	5 High-Performance Laptops (Core i9)	2,000,000	5	10,000,000
	Data management software & licenses	—	—	2,000,000
Subtotal Equipment & Materials				62,250,000
C. Prototype Development & Scale-Up	Production of pilot vaccine batches	—	—	15,000,000
	Sterility, potency, and stability testing	—	—	7,500,000
	QA & QC analysis (independent validation)	—	—	6,000,000
	GMP compliance audits & certification prep	—	—	6,800,000

	Packaging design, labeling & inserts	—	—	4,125,000
	Industrial process optimization (consultancy)	—	—	2,900,000
Subtotal Prototype				42,325,000
D. Field Trials & Validation	Animal procurement & care (cattle, goats, dogs)	—	—	12,000,000
	Veterinary services & field staff allowances	—	—	9,500,000
	Transportation & logistics (vehicles, fuel, insurance)	—	—	7,800,000
	Laboratory diagnostics during trials	—	—	5,500,000
	Tick burden monitoring kits & consumables	—	—	4,800,000
	Data collection, analysis & reporting	—	—	6,000,000
Subtotal Field Trials				45,600,000
E. Market Validation & Stakeholder Engagement	Farmer training workshops (12 sessions × ₦1,000,000)	1,000,000	12	12,000,000
	Public awareness campaigns (radio, print, extension)	—	—	6,500,000
	Stakeholder meetings (cooperatives & vet associations)	—	—	5,337,500
	Distribution hub setup (3 zones)	—	—	5,000,000
Subtotal Market Validation				28,837,500
F. IP Registration & Certification	NAFDAC licensing & approval fees	—	—	5,500,000
	Veterinary Council registration	—	—	2,000,000
	Patent strengthening & legal support	—	—	4,250,000
	Technology transfer documentation (MoUs, contracts)	—	—	2,500,000
Subtotal IP & Certification				14,250,000
	Peer-reviewed journal publications	—	—	9,000,000

G. Dissemination & Knowledge Sharing	Policy briefs & technical reports	—	—	2,600,000
	National dissemination workshop	—	—	3,500,000
	International conferences (2 events)	—	—	3,000,000
Subtotal Dissemination				18,100,000
H. Monitoring & Evaluation (M&E)	M&E framework & baseline survey	—	—	3,000,000
	Quarterly monitoring visits & reports	—	—	4,500,000
	Independent mid-term evaluation	—	—	2,500,000
	Final impact assessment	—	—	1,650,000
Subtotal M&E				11,650,000
J. Advisory & Consultancy Fees (NEW)	Prof. Simon Agwale – strategic & manufacturing advisory	—	—	9,000,000
	Prof. Demo Kalla – policy & livestock value-chain lead	—	—	4,000,000
	Prof. Lami H. Lombin – veterinary public-health & biosecurity	—	—	4,000,000
	Prof. Babale H. Mafuyai – institutional governance & funding linkages	—	—	4,000,000
Subtotal Advisory & Consultancy				21,000,000
K. Contingency (5% of subtotal before contingency)	Inflation & unforeseen costs	—	—	14,254,375
GRAND TOTAL				₦299,341,875

2) NARRATIVE BUDGET JUSTIFICATION

Personnel (₦41,075,000)

- PI and co-researchers are budgeted for allowances over 24 months to manage R&D, scale-up, field trials, and commercialization tasks. Two lab technologists support routine lab work and trial operations.

Equipment & Materials (₦62,250,000)

- Critical to ensure pilot production and QA: bioreactor consumables, reagents (ELISA, PCR), sterile vials and packaging, PPE, diagnostic kits, cold-chain freezers, and 5 high-performance laptops (Core i9) for bioinformatics, data analysis and field data capture.

Prototype Development & Scale-Up (₦42,325,000)

- Funds pilot production runs, formal QA/QC testing (added explicitly), GMP-readiness activities, packaging design, and external process optimization consultancy to make the product industrially manufacturable and regulator-ready.

Field Trials & Validation (₦45,600,000)

- Covers procurement/care of trial animals, veterinary services, field teams, transport and logistics for six-state trials across the three geopolitical zones, laboratory diagnostics and data management.

Market Validation & Stakeholder Engagement (₦28,837,500)

- Farmer workshops, demonstration herds, radio/outreach campaigns, stakeholder meetings with cooperatives and vet associations, and establishment of distribution/ cold-chain hubs in the three target zones.

IP Registration & Certification (₦14,250,000)

- Fees and legal support for NAFDAC submission, Veterinary Council registration, patent strengthening and the documentation needed to support licensing and tech transfer.

Dissemination (₦18,100,000)

- High-impact publication budget (increased as requested to ₦9m), national workshop, policy briefs and presentations at international conferences to raise profile and attract investors/partners.

Monitoring & Evaluation (₦11,650,000)

- Development of robust M&E framework, baseline survey, quarterly monitoring, an independent mid-term evaluation and a final impact assessment (led by Engr. U. Ohaeri).

Advisory & Consultancy Fees (₦21,000,000)

- **Prof. Simon Agwale (₦9,000,000):** Strategic manufacturing and technology-transfer advisory, leveraging his industry leadership (Innovative Biotech Ltd.) and experience building vaccine manufacturing capacity in Nigeria. Fee covers consulting, technical design input, and facilitation of industry partnerships.
- **Prof. Demo Kalla (₦4,000,000):** Policy and livestock value-chain advisory, leveraging his role in Presidential livestock reforms and IP/tech transfer expertise to smooth adoption pathways and state-level engagements.
- **Prof. Lami H. Lombin (₦4,000,000):** Veterinary public-health and biosecurity advisory, ensuring clinical trial biosecurity, Vet Teaching Hospital linkages, and training curriculum alignment.
- **Prof. Babale H. Mafuyai (₦4,000,000):** Institutional governance and funding-linkage advisory, support for institutional agreements (TETFund / research infrastructure alignment), and high-level stakeholder access.
Rationale: These fees secure short-term but high-impact advisory inputs that materially reduce regulatory, manufacturing, and policy risks — increasing the probability of rapid, compliant commercialization.

Contingency (₦14,254,375)

- Set at 5% of the subtotal (before contingency) to cover inflation, reagent price fluctuations, unforeseen field costs, and minor scope changes.

3) BUDGET SUMMARY TABLE (with % allocation)

S/N	CATEGORY	AMOUNT (₦)	% OF TOTAL (ROUNDED)
1	Personnel	41,075,000	13.72%
2	Equipment & Materials	62,250,000	20.80%
3	Prototype Development & Scale-Up	42,325,000	14.14%
4	Field Trials & Validation	45,600,000	15.23%
5	Market Validation & Stakeholder Engagement	28,837,500	9.63%
6	IP Registration & Certification	14,250,000	4.76%
7	Dissemination & Knowledge Sharing	18,100,000	6.05%
8	Monitoring & Evaluation	11,650,000	3.89%
9	Advisory & Consultancy Fees	21,000,000	7.02%
10	Contingency (5%)	14,254,375	4.76%
11	GRAND TOTAL	₦299,341,875	100.00%