

DETAILED PROJECT BUDGET — Biomass–LDPE Waste Nuggets Pilot Plant

Project Duration: 8 months

Location: Nigeria

Funding Requested: ₦23,000,000

Budget Category	Description	Quantity/Unit	Unit Cost (₦)	Total (₦)
1. Equipment & Machinery (₦13,000,000)				
Torrefaction Machine (1-ton/day)	Custom-fabricated torrefier with temperature control	1 unit	7,000,000	7,000,000
LDPE Shredder	For processing plastic sachet waste	1 unit	1,500,000	1,500,000
Biomass Grinder	For rice husk and straw size reduction	1 unit	1,200,000	1,200,000
Drying Oven	For pre-torrefaction moisture control	1 unit	1,000,000	1,000,000
Cooling & Packaging Unit	For final product conditioning and packaging	1 unit	800,000	800,000
Weighing & Quality Testing Tools	Calorimeter, moisture analyzer, sample crusher	Lump sum	500,000	500,000
Subtotal (1)				₦12,000,000
Freight, Installation & Calibration	Transportation, setup, and local assembly	Lump sum	2,000,000	₦1,000,000
Total Equipment & Machinery				₦13,000,000

2. Facility Setup & Utilities (₦5,000,000)

a) Electrical & Wiring, Power installation, control panel - Lump sum of 1,500,000 = 1,500,000

b) Safety & Environmental Controls | Fire suppression, PPE, waste bins - Lump sum of 500,000 = 500,000

c) Generator & Backup Power 15 kVA diesel generator - 1 unit for 2,000,000 = 2,000,000

d) Water Storage & Plumbing Tank, piping, flow control - Lump sum 1,000,000 = 1,000,000

Total Facility Setup = ₦5,000,000

3. Working Capital & Operations (₱5,000,000)

a) Feedstock Procurement - Rice husk, straw, LDPE waste (1 ton/day) for 8 months - 1,000,000 = 1,000,000

b) Labour & Wages - 1 Engineer, 2 Technicians, 1 Analyst, 1 Sales Officer for 8 months - 1,600,000 = 1,600,000

c) Transportation & Logistics - Waste collection and product delivery - Lump sum of 800,000 = 800,000

d) Administrative & Licensing Permits, insurance, record keeping - Lump sum 600,000 = 600,000

e) Marketing & Stakeholder Engagement Branding, outreach, cooperative partnerships - Lump sum of 500,000 = 500,000

f) Training & Safety Workshops, Staff orientation and technical training - Lump sum of 500,000 = 500,000

Total Working Capital = ₱5,000,000

SUMMARY OF TOTAL COSTS

Category	Amount (₱)	% of Total
Equipment & Machinery	13,000,000	56.5%
Facility Setup & Utilities	5,000,000	21.7%
Working Capital & Operations	5,000,000	21.7%
TOTAL PROJECT COST	₱23,000,000	100%

NOTES

- The budget covers pilot-scale setup, training, and first production cycle.
- Equipment will be locally fabricated to minimize import dependency.
- Depreciation (10%) and contingency (5%) are built into cost margins.
- The project becomes self-sustaining after Year 1 through revenue from sales.