

S/N	Budget Category	Description of Items / Activities	Estimated Cost (₦)
1	Equipment and Materials	Procurement of refrigeration components (compressor, condenser, evaporator, vacuum pump), sensors (pressure, humidity, temperature), IoT modules (ESP32, Wi-Fi relays), solar system components (panels, inverter, batteries)	₦2,600,000
2	Prototype Fabrication and Assembly	Fabrication of chamber and frame, welding, machining, insulation, system integration, leak testing, vacuum sealing, and calibration	₦2,400,000
3	Field Testing and Performance Evaluation	Experimental testing on selected perishable food products (vegetables, fruits, meat), laboratory analysis (nutritional, temperature, and energy data), logistics, and test documentation	₦1,800,000
4	Commercialization and Capacity Building	Development of commercialization model, local fabricator training, stakeholder workshop, and production of training manuals	₦1,800,000
5	Travel and Logistics	Transportation for component sourcing, prototype deployment, stakeholder engagement, and field testing	₦800,000
6	Documentation, Reporting, and Publication	Technical reporting, graphical documentation, and publication of results in peer-reviewed journal outlets	₦250,000
7	Total		9,650,000