Build A 12 m × 12 m Masjid In Rural Gambia

Project Summary

Build a **144 m² masjid** with a prayer hall, veranda, ablution area, small store room, ventilation blocks, solar lighting, and durable roofing suitable for rural Gambian climate.

A 12 m × 12 m masjid is a very achievable project in rural Gambia, and the key is to break it into clear phases: land, design, materials, labour, and community coordination. Below is a practical, step-by-step plan shaped for Gambian rural conditions, including cost ranges, construction methods, and the workflow you'd realistically follow.

Core Takeaway

You can build a **simple, durable 12 m × 12 m masjid** in rural Gambia with **local materials, community labour, and a phased budget of roughly £12,000–£18,000**, depending on finish quality. The most important steps are securing land, choosing a low-maintenance structure, and organising reliable local builders.

What a 12 m × 12 m Masjid Looks Like

A 144 m² Masjid typically includes:

- **Main prayer hall** (100–120 m²)
- **Small veranda / shaded entrance**
- **Ablution area** (basic taps + drainage)
- **Optional small Minaret**

Step-by-Step Plan

1. Land Acquisition

In rural Gambia, land is usually allocated by:

- The **Alkalo (village chief)**
- The **District Seyfo**
- Family/compound owners donating a plot

You need:

- A **written attestation** from the Alkalo
- A **sketch map** of the plot
- Optional registration at the **Area Council**
- Typical plot size needed: **20 m × 20 m minimum**.

2. Site Preparation & Land Approval

- Obtain written approval from the **Alkalo** and **Seyfo**.
- Minimum plot size: **20 m × 20 m**.
- Clear vegetation, level ground, mark out the 12 m × 12 m footprint.
- Raise foundation height **30–50 cm** to prevent rainy-season flooding.
- Land documentation

3. Architectural Design & Layout

Main components:

For rural areas, keep the design simple:

Square prayer hall 12 m × 12 m prayer hall
Reinforced concrete columns
Block walls Ventilation blocks on all sides
Ventilation blocks + windows
2 m deep front veranda
Corrugated roof or concrete slab (slab is more expensive)
3 m × 3 m ablution area
2 m × 1 m store room
Mihrab niche on qibla wall
Symbolic minaret (2–3 m)

Orientation: Align Qibla wall precisely toward Mecca (approx. **58° NE** from Gambia).

Key considerations:

- Qibla Direction (Towards Mecca)
- Natural Airflow (Gambia is hot and humid)
- Rain Protection (Heavy rainy season)

4. Materials Sourcing

Most materials are available in:

Brikama
Soma
Farafenni
Basse

Typical materials list:

- Cement (120–200 bags)
- Sand + Gravel

- Concrete Blocks (1,500–2,000)
- Iron Rods (10–16 mm)
- Timber for Roofing
- Corrugated Sheets
- Tiles (Optional)
- Plumbing for Ablution area

Estimated Cost: **£4,000–£10,000** depending on finish.

5. Foundation & Structural Work

Foundation

- Excavate trenches: **0.6 m deep × 0.4 m wide**
- Fill with compacted gravel
- Pour reinforced concrete footing
- Build foundation walls with stone or blocks
- Backfill and compact

Columns & Beams

- 12–16 reinforced concrete columns
- Tie beams at top for roof stability
- Iron rods: 10–16 mm

Floor Slab

- 10 cm concrete slab
- Optional tile finish

. Wall Construction

- Use locally made concrete blocks (1,500–2,000 units).
- Wall height: **3 m**.
- Include ventilation blocks high on walls.
- Install 6–8 windows for airflow.
- Build mihrab niche (semi-circular or rectangular).

Materials list: Masjid materials breakdown

6. Roofing

Option A: Corrugated Metal Roof (recommended for rural areas)

- Timber trusses
- Anti-rust corrugated sheets

- Overhang of 0.5–1 m for rain protection
- Ceiling boards optional

Option B: Concrete Slab Roof (more expensive)

- Requires strong columns
- Waterproofing essential
- Higher long-term durability

7. Labour & Builders

You'll need:

- 1 Mason (Builder) **£6–£12/day**
- 2–3 Assistants **£3–£6/day**
- 1 Roofer (Roof) **£8–£15/day**
- 1 Carpenter (Ceiling) **£7–£12/day**
- 1 Welder (Doors & Windows)
- 1 Plumber
- 1 Painter
- 1 Electrician
- Community volunteers for sand, water, block carrying

Labour cost in rural Gambia is relatively low: Community labour often reduces cost significantly.

8. Ablution Area

A basic wudu setup includes:

Ablution (Wudu) Area

- 4–5 taps mounted on a concrete wall
- 3 m bench for sitting
- Drainage channel leading to soakaway pit
- Non-slip floor finish

Cost: **£150–£400**.

9. Electricity & Lighting

Options:

Electrical & Solar Setup

- 2–4 Solar Panels (recommended)

- Battery + charge controller
- LED lights inside
- Outdoor light for night prayers
- Optional 4 - 6 Ceiling fans

Solar setup cost: **£300–£900**.

10. Finishing Touches

. Finishing & Interior

- Smooth Plastering
- White or Cream paint
- Simple Mihrab decoration
- Prayer Mats
- Speaker for adhan
- Wooden or Metal doors
- Ventilation Blocks painted for airflow

Finishing cost: **£300–£1,000**.

11. Labour Requirements

- 1 mason
- 2–3 assistants
- 1 carpenter
- 1 plumber
- 1 electrician

Total Estimated Budget:

Budget Estimate (Gambia Rural District)

Component	Cost Range
Land (often donated)	£0–£1250
Foundation & Structure	£1,000–£2,500
Walls	£1,200–£3,000
Roofing	£1,000–£4,000
Ceiling	£1,000–£2,500
Door & Windows	£150–£400
Electricity / Solar Power	£500–£1,250
Ablution Area	£300–£900
Doors & Windows	£300–£700
Finishing	£300–£1,000
Total	**£12,000–£18,000**

11. Construction Timeline (Realistic Rural Schedule)

Phase	Duration
Land Approval & Clearing	1–2 weeks
Foundation	2–3 weeks
Walls	3–4 weeks
Roofing	2–3 weeks
Ablution Area	1 week
Electrical & Solar	3–5 days
Finishing	1–2 weeks
Total	**10–14 weeks**

Practical Tips for Rural Gambia

- Use **local Masons** familiar with rainy-season construction.
- Avoid flat Roofs unless you can afford waterproofing.
- Prioritise **Ventilation Blocks** to reduce heat.
- Build a **High Foundation** (30–50 cm) to avoid flooding.
- Involve the **Village Elders** early for smooth coordination.

- A **full construction plan**
- A **materials cost breakdown**
- A **floor plan sketch description**
- A **fundraising proposal**

Management & Community Coordination

- Form a **Masjid Committee** (5–7 members: Including Imam & Caretaker).
- Assign roles: finance, materials, labour coordination, record-keeping.
- Keep receipts and weekly progress reports.
- Involve village elders in major decisions.
- Use local suppliers to reduce transport costs.

Optional Enhancements

- Small Minaret (2–3 m)
- Ceiling Fans
- Tile Flooring
- Water Tank
- Rainwater Harvesting
- Qur'an Shelves and Storage

BILL OF QUANTITY - 12 m X 12 m MASJID

Item	Description	Unit	Quantity	Unit Cost (£)	Total Cost (£)	Notes
Site Preparation	Clearing, levelling the site	sqm	165	2	330	Approx. 12m x 11m + veranda
Foundation Excavation	Digging for reinforcement & base	m3	20	15	300	Depends on soil and foundation depth
Concrete (Foundation)	Concrete mix for foundation	m3	15	80	1200	Includes delivery and mixing
Reinforcement Steel	Steel bars for foundation and walls	kg	500	2.5	1250	Estimated for structure + minaret
Cement Blocks	Walls and minaret construction	pcs	4000	0.4	1600	Standard block size
Mortar (Cement/Sand mix)	For laying blocks	tonne	5	150	750	For masonry work
Roofing	Concrete slab or metal roofing	sqm	140	20	2800	Includes waterproofing
Doors (Double)	Main entrance door	unit	1	300	300	Durable metal or wooden door
Windows (Double)	Natural ventilation & light	unit	7	150	1050	Includes frames and glass
Windows (Single)	Small windows in Imam's area	unit	3	100	300	
Veranda Flooring	1m wide veranda along entrance	sqm	11	15	165	Durable tiling or concrete
Interior plastering	Wall finishing	sqm	220	5	1100	Includes labour and materials
Painting	Interior and exterior	sqm	330	3	990	Two coats recommended
Flooring	Prayer hall and Imam area	sqm	132	10	1320	Tiles or polished concrete
Electrical wiring & fittings	Lighting and electrical outlets	lot	1	800	800	Includes lights, fans, switches
Minaret Construction	Concrete, blockwork, finishing	lump sum	1	1,200	1200	Includes reinforcement

Labour (Masonry, carpentry, roofing, electrical)	Estimated Total man-days	day	60	8	480	Average local rate
Contingency	For unexpected costs	% of Total		10%	85.29	Recommended budgeting buffer
Estimated Budget Cost:						**£16,020.29**