

Sustainable Building Plan

Technical Plans





Sustainable Building Plan

Goal

Develop designs and processes to deliver school buildings that are economically, socially, and environmentally sustainable—working within Malawi’s education system.

Considerations

Measuring our sustainability

We will measure TMP’s work biannually against an environmental, social, and economic sustainability framework. Schools need to score ‘good’ to ‘very good’ within this framework.

- Environmental criteria
Low carbon materials or wood; locally sourced labour and materials; addressing deforestation; buildings designed to last.
- Social criteria
Building designs that respond to need; reducing or eliminating reliance on TMP for builds; securing local political support.
- Economic criteria
Developing viable approaches for long-term economic opportunities; economically viable SSBs.

Produce economically sustainable building plans

If TMP’s facilities are too expensive to build, no one will fund them (cost-effectiveness = competitiveness = value for money).

- Undertake a benchmarking exercise to determine the value of our sustainable materials and technologies versus local materials and construction methods, including:
 - Conducting an economic assessment of environmentally sustainable versus traditional building methods and materials.
 - Conducting a construction process assessment of sustainable versus traditional building methods and materials.
 - Identifying the environmental advantages of SSBs.



- Producing analysis of what makes TMP buildings competitive: a combination of quality, price competitiveness, community engagement, local employment, localisation of skills, and sustainability.
- Undertake an economic assessment, including:
 - Establishing links with other NGOs to understand their costs.
 - Understanding what donors want and what approaches they prefer. Use this information to optimise our pricing, quality, and building timeframes.
 - Comparing TMP's costs to other at-scale international non-profit organisations, e.g. Foreign, Commonwealth & Development Office (FCDO). Looking at the total cost, cost going to the communities in labour, and local empowerment.
- Share research via the TMP website.

Standardisation

Standardise procedures and tasks so that they are repeatable to maximise localisation and improve governance.

- Develop standardised modular designs, including:
 - Simplified procurement BOMs (Bill of Materials).
 - Standardised architectural drawings, so that detailed planning is simplified.
 - Standardised procedures with simplified training.
 - Designs that are easy to explain to potential funders and partners.
 - Streamlined SSB manufacture.
- Decide whether TMP buildings will comply with international building standards for ease of fundraising or localise to reduce costs.
- Create a decision-making tree that TMP can use when assessing new types of buildings at different sites. These buildings are bespoke, but with standardised processes and designs.

Innovation of sustainable construction technologies

Continue to improve construction technologies as Malawi changes and develops.

- Design an improvement programme implementation plan that aids improvement of construction materials and processes, including:
 - A focus on using locally available materials to maximise Malawian trade and optimise cost.
 - A plan to make sustainable technologies open to the Malawian public at affordable prices.

Process

- Establish a team to produce the deliverables.
- Review sustainable building processes and approaches against the approved framework biannually.

Prioritised Deliverables

- Develop a set of standard modular designs, including BOMs, standardised architectural drawings, and standardised procedures.
- Develop environmentally sustainable building plans.
- Review building plans and approaches against the approved sustainability framework.

Future Actions

- Produce the deliverables outlined above.

