

For sustainable design to be most effective it must be implemented at the concept design stage.

This prevents heat gain while keeping direct sunlight glare to a minimum. This orientation is especially important in large commercial buildings where the cost and impact of direct sunlight is very high

2. **Natural Cross Ventilation:** Where possible, the power of the wind should be harnessed for the purpose of natural ventilation. Ideally, air should flow through the building without assistance. Ventilation openings should be closable thereby controlling the air flow and the buildings ambient temperature.

3. **Water Harvesting:** With our current water crisis there is no reason not to collect and store water on site. This can then be used for non potable use (toilets, gardening, car washing etc)

4. **Material Choices:** The use of locally sourced, non toxic, sustainably produced or recycled materials is recommended.

5. **Waste Material Preventions:** During planning and design of facilities, a comprehensive design strategy is needed. This includes the implementation of a waste disposal system with separate recyclable, biodegradable and non recyclable waste collection.

6. **Solar Energy:** Due to our tropical climate we have abundant sunlight. By using solar powered water heating and external lighting, we harness a free and perpetually available source of energy.

These techniques are not new to our indigenous cultures. In fact sustainable design is an integral aspect of all indigenous building.

The Maasai are an exemplary example of a zero impact sustainable lifestyle. All material for building is sourced in a 5 km radius. Wood used is from previously felled trees. Building materials are natural occurring. Design, construction and positioning are in tune to site specific wind, sun and water conditions with minimal impact on the land. When the Maasai are ready to move on to new places, all structures are easily broken down and because all materials are biodegradable, and return to earth the Maasai successfully leave no energy imprint behind.

We have a responsibility as Architects and citizens of the earth to make socially, and environmentally responsible design decisions that have a positive impact on the investors' bottom line and give building users healthy, compelling, sustainable, exciting and high quality Environmental living conditions.

**Kiuri Mburathi**  
M.Arch | U.S.A, BSc (Hons) UK, MAAK (A)  
kiurim@gmail.com  
www.insightarchdesign.com

