## How to Construct Green Buildings



- 1. Use Green Materials (Recyclable)
- 2. Incorporate Sustainable Energy Systems (Solar Panels, Windmills) & maximising use of daylight.
- 3. Harnessing Rainwater & use of water saving fixtures & fittings.
- 4. Suitable Landscaping
- 5. Minimise wastage.





## (H<sub>n</sub>) Green Infrastructure & Buildings

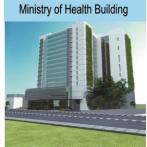


## **Green Buildings Constructed by CECB**



### **Ongoing Projects...**







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# SRI LANKA NEXT

"A Blue-Green Era"

Conference and Exhibition 2016

# Green Building Technology



CENTRAL ENGINEERING CONSULTANCY BUREAU
Ministry of Mahaweli Development and Environment

## What is a Green Building?



Green buildings are structures that more efficiently use valuable resources such as materials, energy, water and land compared to buildings constructed to basic building codes.

Green buildings are better for the environment and provide healthy, comfortable, productive indoor spaces.

## **Benefits of Green Buildings**

#### **Environmental Benefits**

- Better air quality
- Save water
- Temperature is controlled
- Reduced waste generation

#### **Economic Benefits**

- Energy and water savings
- Increased property values
- Decreased demand for power and water supply
- Improved employee attendance
- Increased employee productivity
- Sales improvements
- Development of local talents in building construction

#### Social Benefits

- Improved health
- Healthier lifestyles and recreation

## Features of a Green Building

# **ECOFRIENDLY CONSTRUCTION**

#### WATER EFFICIENCY:

Cisterns collect rainwater to use for landscaping irrigation. Low-flow, waterless or composting toilets helps reduce water use.

#### GREEN ROOFS:

A thin layer of plantsand soil on rooftops provides insulation, reduces stormwater runoff, absorbs carbon dioxide and creates oxygen.

## VENTILATION:

Vents and operable windows assist in heating and cooling by circulating air better.

#### ALTERNATIVE ENERGY:

Skylights

Solar **Panels** 

Composting

**Toilet Bins** 

Roof-mounted wind turbines and solar panels reduce need for outside energy sources-

## WINDOWS

Windows and skylights provide natural lighting and heat. Glazed or double-paned windows provide insulation.

## BUILDING MATERIALS:

Recycled Building Materials reduce waste. Building with certified timber helps protect forests and using non-toxic paints and carpets creates a healthier interior space.

Rain Water

Collection