Sustainable design in context to Energy saving in Buildings : Case of Residence in Jammu

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Abstract: Developing countries like India usually have a restricted energy supply and energy savings in terms of lighting, space heating and cooling can improve security of energy supply as well as enhance comfort in the home and provide economic savings on energy bills. We are very well aware of the techniques or technological solutions involved which are tested and even simple changes can make a difference. However, there are different approaches depending on the typology of the building, its location, orientation and usage.

In this paper, I am stressing on the simple fundamentals of natural light and ventilation which should be incorporated in a residence to be designed in a composite climate in Jammu region. The energy saving techniques involved are building construction methods like rat trap bond in brick work for passive cooling and heating, cross ventilation in all spaces, use of solar energy for hot water, orientation and form of building to improve day lighting, use of landscaping for energy saving and use of energy savers gadgets for reducing energy supply. The case involves an existing house in Jammu in which these parameters of energy saving have been achieved by following simple practices of building construction.

Keywords: Energy, saving, residence, lighting