

The growing concern for sustainable living environments in the 21st century is timely especially with the high rate of urbanization in developing countries. The Environmentalism movement is an amalgam of environmentalists, architects, city designers and builders, bringing together ideologies of ecological and human-potential into the mainstream of urban design and planning. Below is a mention summary of the guiding principles that are adopted in the design of sustainable and holistic urban environments.

TARGET ISSUES FOR THE DESIGN OF SUSTAINABLE AND HEALTHY ENVIRONMENTS.

1. QUANTUM CHANGE AND TRANSFERABILITY

Outstanding examples of sustainable construction not only mark significant advancement, the innovative ideas are those that can be copied again and again, thus promising the greatest benefit at a global scale. These are the ideas that embrace affordability, simplicity, and have a broadly applicability.

2. ETHICAL STANDARDS AND SOCIAL EQUITY

Sustainable construction means building to supply urgent and basic needs: shelter, water, schools, access to goods and services, and medical care. It means leaving sufficient materials and resources for others, including future generations. Sustainable cities and buildings are those that respond to the emotional and psychological needs of people by providing stimulating environments, raising awareness of important values, inspiring the human spirit, and bonding societies, communities, and neighborhoods. Many sustainable construction projects are developed by teams using a collective approach through which stakeholders and users are included in the design process.

3. ECOLOGICAL QUANTITY AND ENERGY CONSERVATION

A fundamental principle of sustainable development is to keep our planet in condition to indefinitely support future generations. This is an enormous challenge because our global ecosystem is in a state of stress and overuse. Finite sources of energy and materials are being depleted, and much of our environment is being polluted or spoiled.

At the building scale, sustainable construction aims to provide long-lasting, healthful, and useful buildings while conserving finite resources of materials and energy by using durable, recyclable, and renewable materials, through energy-efficient design, and by using environmentally neutral energy sources (wind, sun, geothermal, etc.) and mechanisms (shading, simple evaporation cooling, etc.).

At the urban and regional scales, sustainable construction involves planning that preserves environmental quality, conserves energy through efficient design, reduces waste and consumption through sensible design, and reduces pollution by establishing efficient transportation networks.

4. ECONOMIC PERFORMANCE AND COMPATIBILITY

Through efficiency of design, construction, maintenance, operation, reuse, and recycling, sustainable construction seeks feasible projects that provide long-term economic benefits for owners, users, and communities. Such benefits can take many forms besides profits or lower costs, for example: strengthening the economic base of a region, boosting the local economy, giving residents more control over their housing costs, or even giving people a financial base. Innovative deployment of financial resources, durability, adaptability, lifecycle cost planning, 'free' low-tech natural resources, and other attributes can work together to make sustainable construction not only financially feasible but the preferred choice and a sound long-term investment in the future.

5. CONTEXTUAL AND AESTHETIC IMPACT

Visual expression and fitness of form are two essential qualities of all good architecture and planning, and these are also central to sustainable construction. This applies at all scales: land use planning, urban planning, and architectural design. Land use planning should preserve natural areas and the inherent qualities of the landscape. Besides providing an efficient and functional infrastructure, urban planning should create spaces and places of cultural significance and social value. Urban redevelopment projects and large public projects should heal and upgrade neighborhoods and city quarters. And architectural projects should not only meet the owner's requirements (program), but match the physical context (site and neighborhood) and improve the local surroundings.

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REFERENCE:

Five target issues for sustainable construction.

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