
ECO-VILLAGE- A SOLUTION TO UNCONTROLLED RAPID URBANIZATION

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Abstract: The twentieth century is undoubtedly an age of urban transition; by the turn of the century, for the first time in history, more than half the world's people will be living in cities. Today cities are widely acknowledged as critical agents for economical development, cultural diversification and technological innovation, generating more than half of the national wealth. In a rush to allow unplanned development, cities have been morass of confusion, driving millions of people to slums and making our habitats polluted, dirty and almost unlivable. The situation continues to worsen; the cities grow bigger and bigger and almost everyone becomes paralyzed as if to live in degraded destiny. Today the largest numbers of people living in degraded, wretched conditions are in the cities and towns. One out of three living in the urban centers of the developing world rots in the slums, shanties, streets or dilapidated habitats. In the march of urbanization to the twenty-first century the masses are hurdled into the nether world. The industrial civilization has converted humans into consumers. Cities are centers of insatiable consumption. The consequences of gluttonous consumption are immutable; worldwide resources are depleting or being degraded. The ecological system, on which our survival depends are collapsing. In this grim situation eco-village has shown a ray of hope for controlling rapid urbanization. Eco- village provides the way out to put to an end the disastrous growth of population along with greedy consumption. The malignant growth of the cities can be controlled by the eco-village. An eco-village is a total socio-ecological condition for living sustainably and joyfully. For many millennia human beings lived in harmony with nature in well-integrated culture. Even today, millions of people living in more than 600,000 villages of India. Eco-villages or eco-habitats must be made humane and ecological. In the present paper the concept of eco-village have been illustrated in order restrict the movement of rural population to cities.

Keywords: sustainability, communities.

Introduction: The concept of eco-villages, despite having arguably limited influence, does have the potential to serve as an alternative urban model. As relatively small experimental communities, eco-villages are in the position to explore and apply novel solutions, the necessity of which is evident in the global concern for sustainability.

Around the world many cities share similar urban environmental problems. These complex problems are often interlinked with other aspects of the society that inhabits the world. According to United Nations estimates, by 2050 the world's resources will have to support more than 9 billion people, of which 75% will be living in cities. The emergence and growing popularity of eco-villages is a reflection of the post-modern world. They are concerned with diversity, cultural pluralism, local governance and empowerment.

Growing importance of cities: The world population has been rapidly migrating to cities, especially over the last century, *inter alia* because cities offer better opportunities and living conditions.

Because of the economy of scale that obtains in cities, the average urban dweller most probably uses less of the earth's resources than a comparable rural dweller. Cities cover only 2% of the world's surface, although half the world's 6 billion population lives in cities [1]. Because of the increased wealth, partially created through the efficiency of cities, the average consumption and pollution by people increased rapidly over the last century. This in turn has increased demands on the natural environment, and has consequently decreased sustainability. Because of increasing urbanization, it is essential to concentrate on the efforts of cities to improve sustainability.

Environmental problems

It is widely accepted that cities around the world are making increasing demands on natural resources and energy as populations increase and consumerist culture continues to expand. Many scientists believe that current urban patterns of living cannot be sustained indefinitely, and that cities are facing severe environmental problems in the not so distant future.

Progress towards environmentally sustainable development focuses attention on cities for two reasons. First, cities are where nearly 50% of the global population of 6 billion already lives and will increasingly live. Second, cities consume 75% of the world's resources and produce 75% of the world's wastes. Due to the growth in population, affluence and urbanization, these figures are set to rise in the coming decades. So, urban populations are major contributors to resource depletion and environmental degradation. Issues such as waste accumulation, air and water pollution, fossil fuel dependency, and the related questions of urban development, urban transport, lifestyles, and production structures, which all depend upon the mass consumption of resources and energy, are of concern to those involved in urban administration and development.

Threats that are the most serious, facing due to rapid urbanization -

Population increase: First, the increasing global population implies added pressure on existing natural and capital resources in an effort to provide in the needs of all the people. The increase will almost entirely take place in developing countries, which are already experiencing strain on their resources.

Geo-chemical changes: The second global threat relates to certain forms of pollution that are altering the global chemical cycles in key ecosystem processes. The most prominent example is the carbon cycle. Carbon, that for millions of years have been stored as coal and oil, are now re-injected into the atmosphere. It is feared that the increasing concentration of carbon dioxide can cause rapid climate change because of the way it traps heat.

Toxic chemicals: The long-term risks due to toxic chemicals are increasing. According to the State of the World report [2] a conservative estimate has it that global production of hazardous waste has reached 300 to 500 million tons per year. Depending on the type of waste disposal, it may involve condensing, incineration, recycling, or neutralization through chemical or biological treatment. It is impossible to quantify the chemical changes brought about in the environment due to the actions of man. However it can safely be stated that the impact is severe and still growing.

Biotic mixing: A fourth threat is found in the unprecedented degree of biotic mixing that the world is subjected to. Growing numbers of organisms are

moving across the globe and emerging in regions where they are not native. Such invasive exotics may threaten or supplant the indigenous species. Depending on the species, the exotic may out-compete native species for some essential resource, or launch an epidemic, or prey on natives directly. This trend threatens ecosystems.

Deforestation: It is a pervasive state that affects ecosystems globally. Primary tropical forests for example are disappearing at a rate probably exceeding 140 000 square Km. per year. It is estimated that total global forest cover, which accounts for a quarter of the earth's land surface, have been reduced by half since the dawn of agriculture.

Sustainable urban settlements: In the light of existing environmental problems, urban settlements are faced with two basic choices or competing visions of the future [3]. The first is to continue the status quo by continuing with current patterns of development and consumer behavior and the second option is an alternative vision of future urban development. In this scenario, land is seen as a valuable resource along with a realization of the limited availability of energy and other resources. This means that environmental potential is maximized by using resources thoughtfully and in keeping with certain ecological principals. As it is important to protect rural land, cities in this model would be more compact and organized not according to movement of automobiles, but in such a way that pedestrian and public transport can play a larger role. This saves valuable energy while creating towns with distinct character that provides its inhabitants with accessible social and recreational facilities. Furthermore it plays an important role in social equity, as all people have an equal ability to utilize urban services and opportunities.

The main task confronting our cities is to provide ecologically sustainable and enjoyable living to the citizens. Unfortunately, however, in a rush to allow unplanned development, we have made our cities a morass of confusion driving millions of people to slums and making our habitats polluted, dirty and almost unlivable [4].

Rapid urbanization itself may be disastrous mistake requiring immediate reassessment and reversal. Human beings are the center of concerns for sustainable development. Human society is wholly dependent upon the health of natural living systems of our biospheres. Instead of facilitating urbanization,

ecocity advocates, promotes the revitalization of villages and small cities, along the restoration of local agriculture bioregions [5].

Eco-Cities and Eco-Villages: The concept of eco-village and eco-city has emerged given the rapid pace of urbanization in developing countries. Ecocities essentially integrate economic, environmental and social considerations and develop projects, programmes, plans and policies towards sustainable governance of the city. Public involvement in this process is very important. Eco-village is a concept similar to eco-city where more emphasis is on adoption to local culture, renewable energy especially based on wind, solar and biomass, organic farming, low water intensive agriculture etc with decentralized and community driven solutions.

Ecovillage: Eco-villages are described by the Global Ecovillage Movement [6] as urban or rural communities of people, who strive to integrate a supportive social environment with a low-impact way of life. To achieve this, they integrate various aspects of ecological design, permaculture, ecological building, green production, alternative energy and community building practices. Eco-villages are created as a response to the environmental and social problems of our times. It is an attempt to live sustainably in the face of the limits to growth that the planet is experiencing and to renew the quality of lives with a reconnection to nature. Kennedy [7] suggests that the motivation for eco-villages is the need to reverse the gradual disintegration of supportive social and cultural structures and the upsurge of destructive environmental practices on our planet.

human activities is modified to an extent that sufficiently limits damage to the physical context, but still allows inhabitants to benefit.

Ecological activities, as mentioned by the Global Ecovillage Network include the growing of food, organic production, the creation of buildings using environmentally-friendly materials and techniques, the use of renewable energy systems where possible, the protection of bio-diversity, the fostering of ecological business principles, the preservation of clean soil, water and air through correct energy and waste management, the protection of nature and wilderness areas as well as an assessment of all products used in the eco-village from a social, spiritual and ecological view. The Global Ecovillage Movement explains what this means in terms of eco-

villages. According to them, it entails recognizing and relating to others; sharing common resources and providing mutual aid; emphasizing holistic and preventive health practices; providing meaningful work and sustenance to all members; integrating marginal groups; promoting ongoing education; encouraging unity through respect for differences; and fostering cultural expression. Despite the emphasis placed on the social dimension by proponents of eco-villages, it can be a difficult element to manage.

Eco-villages can be summarized as “intentional communities striving to create cooperative lifestyles in harmony with their local environments”. Eco-villages world-wide are developing and refining social and ecological tools such as consensus decision making, inter-generational care, alternative economic models, whole systems design, permaculture practices, renewable energy systems, and alternative modes of education that offer positive visions and real-life solutions for humanity and the planet. These communities are part of an emerging global culture of sustainability. Eco-villages can be defined in a number of ways. The Global Ecovillage Network describes eco-villages as urban or rural communities of people who strive to integrate a supportive social environment with a low-impact way of life. Robert Gilman of the Context Institute [8] defines an eco-village as a human scale; full featured settlement that harmlessly integrates human activities into the natural world supports healthy human development and can be successfully continued into the indefinite future.

The Gaia Trust, established by Ross and Hildur Jackson, became instrumental in the development of the eco-village movement. The Gaia Trust continued the interactive relationship between sustainable, spiritually-based development and technological and economic progress. In 1991 the Gaia Trust commissioned a survey of the best examples of eco-villages globally. According to Jackson, this provided the opportunity to establish links between people who found that they had common ground on which they could work together. Denmark, because of its experience with other alternative housing arrangements, emerged as a leader in the development of eco-villages.

The characteristics of eco-villages can be summarized as follows:

Human scale: This description implies that the size of an eco-village should be restricted to that of a community where all inhabitants can interact on a personal level. It should be on a scale where people know each other and where every member is able to take part in communal decisions and activities.

Full-featured settlement: People living in an eco-village should be afforded all the opportunities normally associated with living conditions. Thus provision should not only be made for the appropriate residential functions, but also for economic, social, leisure and commercial activities. The nature of these activities does not have to conform to standards associated with urban lifestyles, but can be in keeping with the ecological spirit of the settlement.

Harmless integration of human activities into the natural world: This principle of eco-villages brings into focus the importance of the natural environment. In accordance with sustainability principles, equality should exist between human beings and other forms of life. This in effect limits the domination of humans over nature. Many of the characteristics of eco-villages are derived from a sensitive integration of humans into a natural system. One of the most important elements in this regard is the cyclical use of energy and materials.

Support of healthy human development: Gilman [6] explains “healthy human development” as involving a balanced and integrated development of all aspects of human life, namely the physical, emotional, mental and spiritual facets.

Successful continuance into the indefinite future: This principle indicates the relevance of accepted sustainability thinking to eco-villages. Without the limitations enforced by sustainable practices, it would be entirely possible to create model eco-villages, but these would still rely on ways of living that cannot be continued indefinitely.

An important ecovillage issue is how to make technology ecologically, socially and spiritually responsive to human needs, rather than the opposite. A closely related issue is the creation of jobs in ecovillages. Technology tends to determine the structure and organization of society. The long term vision should be to provide sustainable jobs in ecovillages by technology exchange and cooperation. Three key criteria have emerged in assessing appropriate technologies for ecovillages, over and above commercial viability: 1) ecological sustainability 2) Human scale, decentralized production 3) allowance for non-stressful, meditative lifestyle [9].

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Appendix

