

## **Ecological Program for Assamese districts**

Cities are centres of economic and social activity. They can grow; they can decline. There is not a one-size-fits-all solution to make a city sustainable. Different aspects of urban life need to be addressed. It is not just about building green spaces, attracting innovative and green businesses and building strong public transport. It is about looking at a city as whole, including the well-being of its residents.

Indian cities are urbanizing at an unprecedented scale and pace. Over the next few decades, India's urban population is expected to increase significantly, from 377 million in 2011 to 590 million by 2030.

The problem is that the country's existing urban transport infrastructure is already over-capacity. This fact—coupled with the alarmingly high rate of traffic fatalities, increasing air pollution and greenhouse gas emissions, congestion, and urban sprawl—has created a sense of urgency to improve the quality of life in our cities now for the benefit of future generations.

To help inspire cities to make the most of the opportunities and minimize downsides of growth, the World Economic Forum recently published “Top Ten Urban Innovations,” showcasing new ideas for boosting urban sustainability. The examples fall into four broad categories: better using underused capacity, evening out demand over time, encouraging small-scale infrastructure, and people-centered design. Each includes a “why” and “what” as well as an assessment of the potential for improving global well-being.

## **Suggestions**

### **Reprogramming Space**

In growing cities, the need for infrastructure can quickly outpace our ability to build it. Vancouver, Glasgow, New York and others are tackling this head-on by repurposing and densifying use of existing urban land rather than building out, and by designing buildings in a way that allows them to switch functions — for example, from a theater to a nightclub — as needs change.

### **An Internet of Pipes**

Clean, readily available water supplies are a growing concern for growing cities. Efforts to meet future needs include a variety of Internet-based innovations aimed at managing water challenges such as flood control, rainwater management, supply distribution, pipe leakage reduction and sanitation management.

### **Twitter for Trees**

Urban trees help reduce temperature extremes, moderate stormwater surges, sequester carbon and capture nutrients from runoff. Melbourne (Australia) is boosting interest in and appreciation for urban forests by inviting its residents to adopt and name individual trees and share updates, including carbon offset and other information, via social media.

### **Augmented Humans**

People-powered transit not only helps make cities cleaner and less congested, it also can boost human health and well-being. But bicycling can sometimes seem too demanding for a workday commute. To make it more appealing and accessible, innovators are developing products such as the Copenhagen Wheel, a bike that runs partly on a battery recharged by braking and downhill travel.

### **Co-heating, Co-cooling, CO2 Capture**

Co-generation facilities boost energy efficiency by taking waste heat from electricity generation and using it to heat or cool buildings. For even more benefit, the carbon dioxide generated in the process can be captured and used for horticulture, manufacturing or other applications.

## **Sharing Spare Capacity**

City dwellers around the world are reducing the environmental footprint of consumption through sharing networks. Starting with increasingly common practices such as carpooling, lodging rental and shared ownership, the practice is expanding to include things like co-locating enterprises to allow them to share facilities such as gyms or classrooms.

## **Mobility on Demand**

Computer- and smartphone-assisted traffic management and vehicle routing can reduce time and fuel wasted trying to travel through congested areas. Similarly, self-driving vehicles and car sharing can boost efficiency by maximizing use of vehicles and reducing need for space to park idle ones.

## **Infrastructure for Social Integration**

The Colombian city of Medellin, once considered one of the world's most dangerous cities, has been transformed by a focus on architecture and design. Shared spaces and improved public transit blur economic boundaries and boost a sense of connection and culture.

## **Smart Street Poles**

As cities switch from polluting conventional streetlights to LED-based updates, they have the opportunity to connect light poles to form a web of information sensors that can do everything from gather air quality data to monitor traffic and reduce the risk of crime.

## **Vertical Vegetables**

Cities can help cut food waste by growing perishable produce right in town, boosting individuals' connections to food and reducing spoilage-promoting lengthy transit distance and time. With water-based gardening and LED-lighting, walls, roofs and other structures that serve one function can be taught to multitask as a food-producing garden, too.

## **Environmental Education**

Teaching of individuals, and communities, in transitioning to a society that is knowledgeable of the environment and its associated problems, aware of the solutions to these problems, and motivated to solve them.

## **Ending Illegal Hunting**

Although it was a crucial part of humans' survival 100,000 years ago, hunting is now nothing more than a violent form of recreation that the vast majority of hunters do not need for subsistence. Hunting has contributed to the extinction of animal species all over the world, including the Tasmanian tiger and the great auk.

## **Sources**

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