



Life Is Full Of Colours...
Enjoy Each Colour With Joy !!
Time Never Stops For Anyone.
The Moment Gone Is Gone 4 Always

ECBC – ENERGY CONSERVATION BUILDING CODE



Ar. Pramod Chaugule
Editor, Greenergy

In our country, conservation of energy, measurement of electricity and heat were never taken into consideration, during construction of buildings, for years together. Top priority was given to the construction, cost, elevation and presentation of the building, in that sequence. The cumulative effect resulted in an increase in construction and maintenance cost of the building, which was initially negligible. The demand for energy increased tremendously and the capacity of production to demand ratio became unmanageable. Eventually, a strategic planning became necessary for energy conservation. . It then became the topmost priority. Rules and regulations were formulated which were termed as ECBC or Energy Conservation and Building Code. Government took a lead and through Energy Governance Cell, formulated the Energy Conservation Act and Bureau of Energy Efficiency. ECBC was established after a lot of thought, in order to actually implement Energy Conservation. The Energy Conservation rules in the form of EC Act - 2001, were formulated keeping in mind 20 to 35 % Energy conservation to be achieved by the developing nations. Commencement of planning and pre-thinking regarding the actual material to be used, its use, the venue, the site of construction for an overall, very efficient construction in the Indian set up proved to be the foundation of ECBC.



As a result, a very useful ECBC was formulated taking into consideration the changes in the environment of the five major parts in the Indian continent. Indian continent has been divided into five major parts, on the basis of climate namely mixed, hot and dry, hot and moist, medium and cold. The implementation of ECBC is on the way, after its formulation in 2007 and its practical utility will have to be proved for commercial constructions. The ECBC can be very easily implemented, taking these five climatic parts into consideration. ECBC rules propose the use of measurement techniques, by classifying construction requirements in a very easy way and utilizing them in a proper way, so that the objective of saving 30–35 % energy will be fulfilled, as follows;

Building and construction,

Electrification,

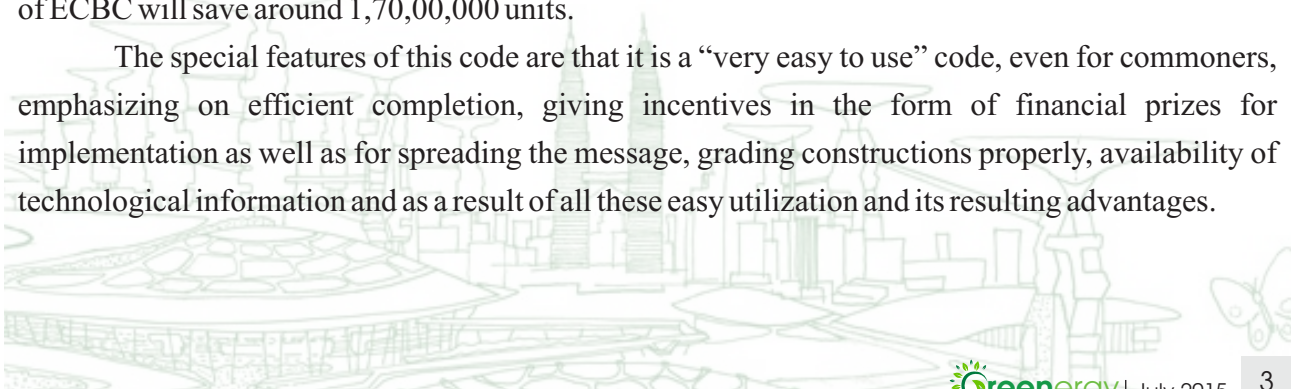
Heating, Ventilation and Air conditioning,

Water Heating system,

Electrical Appliances

In India, the demand for energy is about 20 – 25% of the total area of construction, during production and 15% while utilizing the construction. Initially, commercial buildings will have to be constructed according to ECBC which will result in 25 – 40 % energy saving on the actual construction and then its utilization. If we consider a common commercially used building, requiring energy consumption of 200 KWH per square meter; according to ECBC, the consumption will come down to 125 KWH per square meter. According to the present available information, implementation of ECBC will save around 1,70,00,000 units.

The special features of this code are that it is a “very easy to use” code, even for commoners, emphasizing on efficient completion, giving incentives in the form of financial prizes for implementation as well as for spreading the message, grading constructions properly, availability of technological information and as a result of all these easy utilization and its resulting advantages.





Charles Correa

An architect of the Modern Masses

Charles Correa (1930-2015) has been an inspiration for a lot of people. As humble a person as his designs, when he was asked about his views on being honored as “India's Greatest Architect” by the Royal Institute of British Architects at Portland Place, London, he said, “Perhaps the most inventive or the most innovative might have been better. Greatest is so... so definite, it leaves no room.” In that one sentence he encapsulated two of the many things that marked him special: humble and sensitive.

In the era where the newly independent nation of India saw a burst of closed, introvert and fenced structures, Correa's buildings came as a breath of fresh air. They were open and welcoming. Nature – in the form of light, air as well as material – was free-flowing and visible. The scale was humane. It made the occupant feel welcome and safe.

He truly believed that great architecture could change society. There are many factors that are involved in making architecture – great or not. There is the architect – but he too has restraints. There is the occupant and the owner (or the client). To create great architecture, one has to *listen* to the client and *think* about the occupant and work out complex logical and mathematical equations to arrive at a solution that pleases most of those involved.

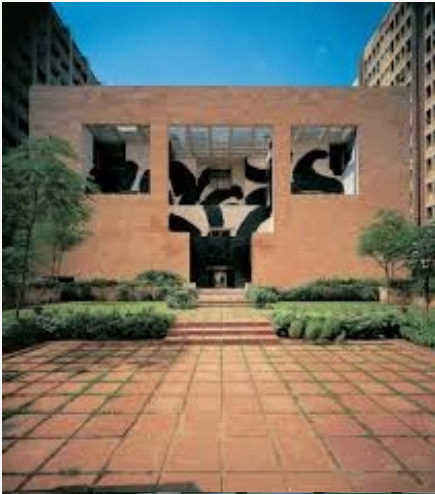
There is also the added consideration of the climatic conditions. During the 50-70's in India, electricity was not available to support use of Air Conditioners, or even ceiling fans in some areas.

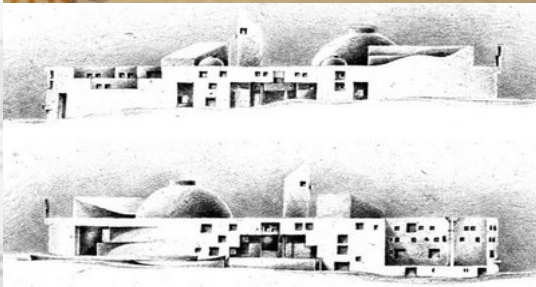
Instead of complaining about it, Correa saw that as a huge challenge and a great opportunity to create form responding to the climatic situation. Urban Planning was his favorite topic. He said the three things the city gives is hope, economics and skills. In his career, almost as long as India has been Independent (his first big project was the Gandhi memorial at Ahmedabad in 1958), Correa has anticipated most of the big questions of urbanisation. In the seventies he, along with Shirish Patel and Pravina Mehta, conceptualized the idea of New Bombay and Correa also designed an affordable housing project at Belapur.

Correa was naturally agitated at the new growth pattern wondering at the absence of schools, playfields, hospitals and open spaces. He said so clearly in an interview with Mumbai Mirror. "You cannot just make a city grow vertically. If for every area the government also provisions for the amenities I just mentioned, you will automatically control density. "Once you have a city of only buildings, and no open spaces, the first people to leave will be the middle-class because they want schools and other amenities for their children. In Mumbai we keep talking of Manhattan, but what is Manhattan? It's an agglomeration of office buildings and otherwise occupied by a very small percentage of the white elite, downtrodden blacks, singletons and DINK (double-income-no-kids) couples. They don't care for family life and it creates another kind of culture, it changes the city. Families in America live in the suburbs, not in Manhattan. Also, people don't use private cars there, they use public transport. But in Mumbai, you want New York but you also want three cars. I don't know how we don't notice these things. Are we drunk, or are we doped?"

Correa's buildings reflect the real man he was. He understood people and he understood what they needed. He created buildings that spoke the same language as the people using them. It is one of the many reasons that he is immortal in the minds of young Indians today.









Architect
Shruti Dandekar



FEW IMPORTANT STRATEGIES DESIGNED BY CENTRAL AND STATE GOVERNMENTS FOR FARMERS

Various strategies are planned and implemented by Central and State governments for farmers but they do not reach common citizens and farmers. These strategies need proper publicity and broadcasting, so that they reach the desired slot. For any further information, contact number 9595044044 can be helpful.

1) To buy cattle – cows and buffaloes :

Project expenses Rs 6 lakhs, ten numbers (Government plan – 25% for Open category, 33% for SC/ST)

2) Rearing of sheep and goats :

Project expenses Rs 4.50 lakhs, fifty she-goats and two he-goats (Government plan – 25% for Open category, 33% for SC/ST)

3) Poultry :

Project - expenses Rs 8 lakhs, five thousand birds (Government plan – 25% for Open category, 33% for SC/ST)

4) Shed - Net House :

Project expenses Rs 3.5 lakhs, 10120 square feet (Government plan – 50 %)

5) Poly house :

project expenses Rs 11 lakhs, 10120 square feet (Government plan – 50 %)

6) Small Sized lentil mill :

Project expenses Rs 1.88 lakhs (Government plan – 50 %)

7) Mini Oil Mill :

Project expenses Rs 5 lakhs (Government plan – 50 %)

8) Packing and Grading centre :

35% financial assistance for common field areas (17.50 lakh per item 9.8 m)

9) Tractor and other farming apparatus :

Type I – (Government strategy – 8-20 PTOHP- Rs 1 lakh financial aid, 35% caste category, farmers, ladies)

Type II - (Government strategy – 20-70 PTOHP- Rs 75,000/- financial aid, 25% other beneficiaries)

10) Power Tiller – Below 8 BHP

Type I – (Government strategy – Rs 50,000/- financial aid, 50% caste category, farmers, ladies)

Type II - (Government strategy – Rs 40,000/- financial aid, 40% other beneficiaries)

11) Power Tiller – Above 8 BHP :

Type I – (Government strategy – Rs 75,000/- financial aid, 50% caste category, farmers, ladies)

Type II - (Government strategy – Rs 60,000/- financial aid, 40% other beneficiaries)

12) Reaping and tying machines :

Government strategy – Rs 1.25 lakh (50%)

13) Rotavator – Below 20 BHP:

Type I – (Government strategy – Rs 35,000/- financial aid, caste category, farmers, ladies)

Type II - (Government strategy – Rs 28,000/- financial aid, other beneficiaries)

Rotavator – Above 20 BHP

Type I – (Government strategy – Rs 44,000/- financial aid, caste category, farmers, ladies)

Type II - (Government strategy – Rs 35,000/- financial aid, other beneficiaries)

14) Separating and pounding machines - Below 20 BHP

Type I – (Government strategy – Rs 15,000/- financial aid, caste category, farmers, ladies)

Type II - (Government strategy – Rs 12,000/- financial aid, other beneficiaries)

Separating and pounding machines - Above 20 BHP

Type I – (Government strategy – Rs 19,000/- financial aid, caste category, farmers, ladies)

Type II - (Government strategy – Rs 15,000/- financial aid, other beneficiaries)

15) Nursery based on advanced technology – (For at least 2 – 4 hectare area unit)

Financial aid – 40% of the investment, 25 lakhs per hectare)

16) Small nursery – (1 Hectare area unit)

Financial aid – 50% of the investment, 15 lakhs per hectare)

17) Godown (Warehouse)

Project expenses 35 Lakhs – 1000 metric tonnes

Government strategy – 25%

18) Cold Storage _ For 5000 metric tonnes

Government strategy – 35% Financial aid for general area , 50% tribal and hilly areas)

2800 per metric tonne for type I

3500 per metric tonne for type II

19) Vermiculture and vermicomposting project –

Project expenses - 600 square foot prescribed area

Government strategy – Rs 50,000/- per production unit

20) Sugarcane crusher -

Project expenses – Rs 14 lakhs

Government strategy – 50%

21) Fruit processing industry -

Project expenses – Rs 24 lakhs

Government strategy – 40%

22) Plantation of Fruit trees (NHB) -

Project expenses – Rs 20 lakhs – 10 acres

Government strategy – 40%

23) Spirulina (Algae) Farming -

Project expenses – Rs 4.5 lakhs

Government strategy – 50%

24) Vegetable drying project -

Project expenses – Rs 24 lakhs

Government strategy – 40%

25) Agriculture counselling and service centre -

Project expenses – Rs 5 lakhs

Government strategy – 40%

26) Production of soya milk and soya products –

Project expenses – Rs 8 lakhs

Government strategy – 40%

27) Agro Tourism –

Project expenses – Rs 10 lakhs

Compiled by **Ar. Pramod Chaugule**












A GREEN MESSAGE





Dr. Jaya Kurhekar
Executive Editor, Greenergy

Plant a tree and see what wonders a single tree can do in its life time of fifty years!

-  A single tree produces Oxygen worth Rs. 17.50 lakhs!
-  A single tree carries out the recycling of water worth Rs. 41 lakhs!
-  Every year a single tree absorbs about 3 kgs of Carbon Dioxide!
-  Together, 300 trees can repair the pollution created by one old person during his life time!
-  A single tree reduces the environmental temperature by about 3 %!
-  A single tree puts a break on the amount of about Rs. 18 lakh, spent on ground breaking!
-  It controls air pollution worth approximately Rs. 35 lakhs, in its life time!



AN ADVICE FOR A GREENER FUTURE AND A BETTER PLACE TO LIVE!

-  Each person should plant at least seven medicinal plants, in a life time, to pay the debt of living happily on this Earth!
-  Carry seeds of favourite plants, whenever one goes for an outing and throw seeds at favourite spots, on the way and unknowingly, be proud planters of trees!



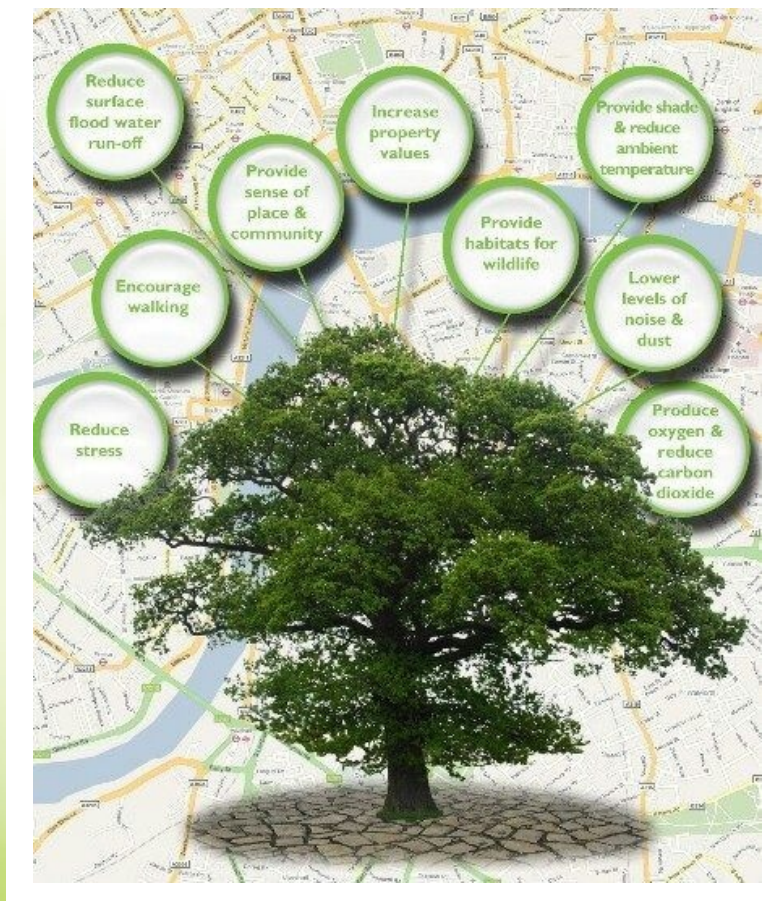
YO-GREEN

Mrs. Yogini Jagdale

DID YOU KNOW ?

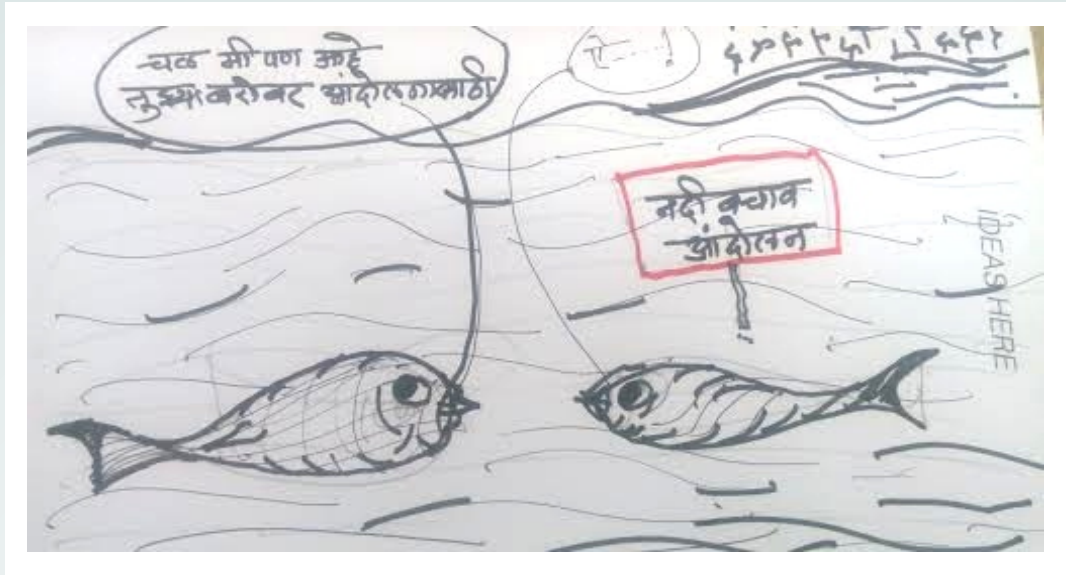
- ▶ On an average 40% of all electricity used to power home electronics is consumed while the products are on standby mode.
- ▶ The United Nations' Intergovernmental Panel on Climate Change (IPCC) reports that 11 of the past 12 years are among the dozen warmest since 1850.
- ▶ Over the last 100 years global sea level has risen by about 10-12.5 cm.
- ▶ Recycling one aluminum can saves enough energy to run a TV for three hours.
- ▶ Recycling a single run of the Sunday New York Times would save 75,000 trees.
- ▶ Rainforests are being cut down at the rate of 100 acres per minute.
- ▶ Plastic bags and other plastic garbage thrown into the ocean kill as many as 1,000,000 sea creatures every year.
- ▶ The amount of wood and paper we throw away each year is enough to heat 50,000,000 homes for 20 years.
- ▶ On average, ONE supermarket goes through 60,500,000 paper bags per year!
- ▶ India is the world's fourth biggest greenhouse gas emitter and produces about 4 percent of global carbon dioxide emissions.
- ▶ By 2015, consumer electronics and small appliances will be responsible for almost 30% of all household electricity use.
- ▶ 80 per cent of car tyres are under-inflated, which increases fuel consumption

- ▶ Temperatures have increased by 0.4 o C over India since 1901
- ▶ Products made from recycled paper, glass, metal and plastic reduce carbon emissions because they use less energy to manufacture
- ▶ Rising temperatures could provoke more frequent floods and droughts, spur disease and increase water scarcity in India because of the disappearance of Himalayan glaciers.f
- ▶ 2000 trees a minute are cut down in the Amazon alone. That is 7 football fields a minute!
- ▶ Every ton of recycled office paper saves 380 gallons of oil.
- ▶ Glass produced from recycled glass instead of raw materials reduces related air pollution by 20%, and water pollution by 50%.
- ▶ There has been a 10% decrease in snow cover in the Northern Hemisphere since the late 1960s.
- ▶ Majority of the developing countries (in Asia, Africa, Latin America and small island states) are in tropical and subtropical regions - the areas most likely to be affected by climate change impacts.
- ▶ By 2020 between 75 and 250 million people in Africa will be facing increased water shortages due to climate change.



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Green Toon



Architect
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Green Thinking !



- The root of all health is in the brain.
- The trunk of it is in the emotions.
- The branches and leaves are the body.
- The flower of health blooms when all parts work together !

Compiled by AGS

Green Dose !

Something
Unpredictable which
Can,t
Come without
Efforts
Strong will power &
Some failures !!!

Devendra Khot



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