

# **LECTURE # 09**

# **ECONOMIC LIFE OF A BUILDING**

Department: City and Regional Planning, LCWU

Subject : Urban Renewal and Conservation

Course Code: Maj/ Crp-303

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# IMPORTANCE

- At the heart of understanding urban renewal, is the idea of the economic life of a building and the timing and nature of the decision to refurbish, convert, replace or abandon it.
- Individual consumers, firms, or the state make these decisions and initiate some kind of urban renewal process; some modification to the existing urban structure.

# ECONOMIC LIFE OF A BUILDING

- The economic life of a building can be considered as the period of time over which the capital value of the building exceeds the capital value of the cleared site.
- According to Goodall (1972), a building will not be demolished so long as:
  - $Be > Sn$  , where
  - $Be$  is the present capital value of the real property, and
  - $Sn$  is the value of the cleared site

# ECONOMIC LIFE OF A BUILDING

- $B_e = Y_e - O_e$ , where
- $Y_e$  is the present capital value of earnings from the existing building, and
- $O_e$  is the present value of the operating costs of the existing building.

# ECONOMIC LIFE OF A BUILDING

- $S_n$  is determined as follows:
  - $S_n = Y_n - C_n - O_n - D_e$ , where
  - $Y_n$  is the present capital value of the expected earnings from the replacement building,
  - $C_n$  is the cost of constructing the replacement building,
  - $O_n$  is the present value of the operating costs of the new building, and
  - $D_e$  is the cost of demolishing the old building and preparing the site.

# IMPORTANT CONSIDERATION

- Following considerations/ costs have to be kept in mind:
  - Anticipated rent that can be achieved for the building,
  - Energy and utility costs,
  - Repair and maintenance costs,
  - Demolition and site preparation costs (simple in a housing area, problematic in an industrial zone, and
  - Appropriate discount rate with which to bring all future costs and earning back to a current value.

# WHAT ABOUT THE PHYSICAL LIFE OF THE BUILDING?

- The lifespan of the building is determined by the economic imperatives of the market by social intervention, and outside of this context, there is no definable physical life of a building.
- In Britain , there are dwelling up to 400 years old still providing adequate accommodation, while local authority flats built in 1960s have already been demolished as they have reached their economic life.

# MARKET DETERMINES THE ECONOMIC LIFE

- An initial rise in demand for office space might result in the demolition of existing houses and replacing them with a purpose built office which would use the same site more intensively.
- According to the Harvey (1981), the current use of any building may be ceased at the point where operating costs of the building exceed the income from it.
- Such a building may be turned over to another profitable use (after modification or conversion).



# MARKET DETERMINES THE ECONOMIC LIFE

- It may be demolished and replaced (if the returns on the development building exceed the cost of demolition and reconstruction).
- If none of these possibilities is financially viable , then, the building may be abandoned and left vacant and dereliction will tend to flow.