

Plinth Area Rate Method

Formula

$$\text{Approximate Cost} = \text{Plinth Area} \times \text{Plinth Area Rate}$$

- **Plinth Area:** Covered built-up area measured at the floor level. Open areas (like courtyards) are excluded.
- **Plinth Area Rate:** Cost of a similar structure in the locality divided by its plinth area.
- *Example:* If a $100m^2$ house costs 20,00,000, Plinth Area Rate = $20,000/m^2$. For a proposed $150m^2$ house, Approx Cost = $150 \times 20,000 = 30,00,000$.

Cubical Content & Service Unit Methods

Cubical Content Method: $\text{Cost} = \text{Volume} \times \text{Cubical Rate}$.

$\text{Volume} = \text{Plinth Area} \times \text{Height}$. This is more accurate for buildings with varying heights like godowns or cinema halls.

Service Unit Method: Cost is based on the functional unit of the structure.

Structure	Service Unit
Hospital	Per Bed
School / College	Per Student / Classroom
Cinema Hall	Per Seat
Water Tank	Per Litre / Gallon

Approximate Estimates for Infrastructure

For large scale civil engineering projects, approximate costs are derived based on a characteristic length or area:

- **Roads & Highways:** Cost per Kilometer (differentiating between single lane, double lane, etc.).
- **Railways:** Cost per Kilometer of track length.
- **Bridges & Culverts:** Cost per running meter of span.
- **Irrigation Canals:** Cost per Kilometer length OR per Hectare of culturable command area.
- **Water Supply / Sewerage:** Cost per capita (per person served).

Comparison Diagram

