

DRAFT FOR COMMENTS

Livable Neighborhoods

Street Furniture and Amenity Design Menu Card for Citizens
For use in Participatory Budgeting



CEE
Centre for Environment Education

Credits

Livable Neighborhoods': Street Furniture and Amenity Design Menu Card for Citizens for use in Participatory Budgeting

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Centre for Environment Education (CEE)

CEE is a national institute established with support from the Government of India Ministry of Environment and Forests as a centre of excellence in environmental education. CEE has also been designated by the Ministry of Human Resource Development as the nodal agency for implementation of the UN Decade for Education for Sustainable Development in India. Headquartered in Ahmedabad, CEE has 40 offices in India with the objective of developing programmes that respond to the local needs. In Pune, CEE Urban is developing a pilot programme for an integrated EE and ESD approach to address urban issues. The concept of the Regional Centres of Expertise, developed by the United Nations University Institute of Advanced Studies (UNU IAS) is being used as a framework to develop the Urban Programme. The RCE framework envisages a network of local organizations – including the local government, higher education institutes, museums, NGOs, community organizations, schools etc – acting in concert to facilitate transformative education for and with various actors in a region. A Regional Centre of Expertise on Sustainable Urban Development in Pune (RCE Pune) was recognized by the UNU IAS in January 2007. CEE's office in Pune is the secretariat for RCE Pune, and is facilitating its evolution and strengthening. Activities include enhancing participatory governance and outreach especially in urban biodiversity conservation, solid waste management, traffic and transportation planning, water and sanitation, etc.

Janwani

Janwani is an initiative of the Maharashtra Chamber of Commerce, Industries and Agriculture (MCCIA), it was formed in 2006 to advocate and promote equitable and sustainable development in the city beneficial to the citizens. This is turn stems from the fact that the city will not be an attractive destination unless it is a truly "livable city".

Janwani endeavors to take a comprehensive view of city development. We work towards identifying gaps and priority areas in the development process, and providing well researched and implementable solutions. We are working to both create a shared vision amongst Pune's of the type of city they want, and bring this vision to reality by networking, facilitating and driving the development process of the city on the desired path.

Participatory Budgeting:

Participatory budgeting is a decision making process through which citizen's deliberate & negotiates over the distribution of public resources. These programs provide several benefits to the society. They improve the performance of the governing bodies as well as they enhance the quality of democracy. Participatory budgeting allows citizens to play a direct role in deciding allocation of resources for various infrastructure development activities in their residential areas. It creates an opportunity for engaging, educating & empowering citizens which gradually results into a vibrant civil society. This program helps in moving the locus of decision making from the private offices of politicians & technocrats to public forums, public meetings which makes the process more transparent. Citizens start to understand their rights & duties & become aware of the responsibilities of the government. Participatory Budgeting was firstly implemented in Porto Alegre, Brazil in the late 20th century. Though initially it made a slow start, it gained momentum in the years to come & was considerably successful.

Guidelines for Development:

It has been generally observed that the citizens do not have an idea regarding the scale of the projects, investment required, time duration & feasibility of a project. There are certain rules, regulations or guidelines that are to be followed while proposing such infrastructure requirements in a particular area. To give a brief idea of all these restrictions we have followed some commonly used guidelines, project reports. The most commonly used are the Urban Development Plans Formulation & Implementation guidelines (UDPFI). These guidelines were formulated by the Ministry of Urban Affairs & Employment (1996) after taking into considerations the deficiencies of the Constitution's 74th Amendment Act 1992. The terms of reference of study for the formulation of guidelines for this report were:

- a.) Preparation of spatial development plans & resource mobilization plans of small, medium & large size urban centres.
- b.) Efficient implementation mechanism & innovative techniques for promotion of planned spatio-economic development of urban areas.
- c.) Simplification of town planning laws & restructuring their amendments.

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Bus - Stop Shelters:

- Bus stop Shelters should not be located near traffic junctions or major intersections
- Maximum distance of this facility should not exceed 500 mtrs from the farthest residential facility

Type	Rate
	<p>Bus Stop Shelter 1 Rate = <u>82000 to 2.5 lakhs</u> per shelter</p>
	<p>Bus Stop Shelter 2 Rate = <u>50000 to 80000</u> per shelter</p>
	<p>Bus Stop Shelter 3 Rate = _____ per shelter</p>

**Bus Stops Shelters:
Environment Frieldy options**

Type	Rate
	<p>Rate: _____ per bus stop (approx.)</p> <p>Bus stops can be built using sustainable, eco-friendly & cheap materials. Materials such as bamboo which is available in abundance can be used. Such structures being semi-permanent can be dismantled & reused.</p>
	<p>Rate: _____ per bus stop (approx.)</p> <p>Innovative ideas can be used to make public spaces more interesting. Even though this example is from the western countries, it can be implemented here in India. They have used panels prepared by joining used scrap bottles.</p>

Entrance Gates:

There are no specific guidelines for this infrastructure.

Type	Rate
	<p>Entrance Gate 1 Rate = <u>8 to 10 lakhs</u> per gate</p>
	<p>Entrance Gate 2 Rate = _____ per gate</p>



Gardens: Compost Unit

- Minimum Garden area required is 0.3 to 0.4 Ha (per 1000 persons)



Type	Rate
	<p>Garden 1 Rate = _____ sqm</p>
	<p>Garden 2 Rate = _____ sqm</p>

Gardens: Micro-greens

There are no guidelines for such items; only care to be taken is that these landscape elements used must require very less maintenance, cheap.

Type	Rate
	<p>Bus-stop garden</p> <p>Rate = _____ sqm</p>
	<p>Traffic Island</p> <p>Rate = _____ sqm</p>


Landscaping Elements:

Type	Rate
	<p>Rate: _____ (approx.)</p> <p>Reuse of waste products such as bottles, battery boxes for landscaping certain areas can enhance the quality of public spaces. These are relatively cheaper & easy to install.</p>
	<p>Rate: _____ per sq. mtr. (approx.)</p> <p>Used tyres, tubes, etc. can be used as planters in gardens, parks. This reduces the hazard they create by improper disposal, burning, etc. Reuse of such materials can be beneficial.</p>

Gardens: Tot lots



Type	Rate
	<p>Garden Tot-lot 1 Rate = _____ per sqm</p>
	<p>Energy Play Equipment Rate: _____ per unit.</p>

Gardens: Sculpture

Type	Rate
   	<p data-bbox="1027 1150 1401 1262">Sculpture 1 Rate = ` 25000 to `50000 per sculpture</p>




Otta Market

No specific guidelines for this infrastructure facility.

Type	Rate
	<p>Otta Market 1 Rate = ` 5000 per sqm</p>
	<p>Otta Market 2 Rate = ` per sqm</p>

Samaj Mandir/ Community Hall:

- Samaj Mandir/ Community hall provisions are made for a population of 5000 population on a plot size of 750 sq. mtrs.

Type	Rate
	<p>Samaj Mandir 1 (community hall)</p> <p>Rate = ` 9000 per sqm to ` 12000 per sqm</p> <p>Shown in photo: 24 square metre ground floor</p>
	<p>Samaj Mandir 2 (religious structure)</p> <p>Rate= ` 7000 to ` 10000 per sqm</p> <p>Shown in photo: 6 by 5 sq meter (30 sq meter) with tin roof</p>
	<p>Samaj Mandir 3 (religious structure)</p> <p>Rate = ` 25000 per structure</p>

Solid Waste Management: Sorting Sheds

- Semi Mechanized/ mechanized facility to be provided if total collected waste exceeds 25 tonnes/day (conveyor belts/ magnetic separators to be used)

Type	Rate
	<p>Sorting Shed 1 Rate = ` 4000 per sqm</p>
	<p>Sorting Shed 2 Rate = ` 12500 per sqm</p>
	<p>Sorting Shed 3 Rate = ` 9500 per sqm</p>

Solid Waste Management: Composting Unit

- Standard Pit Size – 10ft. x 6ft. x 2.5ft.
- One complete composting cycle gives 3 tonnes of manure

(Report by National Scheduled Tribes Finance & Development Corporation)

Type	Rate
	<p>Compost Unit 1 Rate = ` 4500 per sq meter Description:</p>
	<p>Compost Unit 2 Rate = ` 5500 per sq meter Description:</p>
	<p>Compost Unit 3 Description: Roof top compost unit Option 1 with waterproofing Rate = ` 4500/ sq met Option 2 without waterproofing Rate = ` 2500/ sq met</p>



Compost Unit 4

Description:

Rate = ` 9500 per sqm





Compost Unit 5

Description:

Rate = ` 10000 per sq meter

Solid Waste Management: Biogas Plant

Type	Rate
 	<p>Biogas Plant 1 Rate = ` per ton</p>

Streets: Benches and Sitting Places

No norms applicable for this amenity.

Type	Rate
	<p>Bench 1 Description: Parapet wall Minimum 3 meter construction is required Rate = ` 5000 per sqm</p>
	<p>Bench 2 Description: Kadappa bench Rate = ` 12000 per sqm</p>
	<p>Description: Temporary library Rate = ` 12000 per sqm</p>



Bench 3
Description: Iron bench
Rate = ` 3500 to 4500 per sqm



Bench 3
Description: Iron bench
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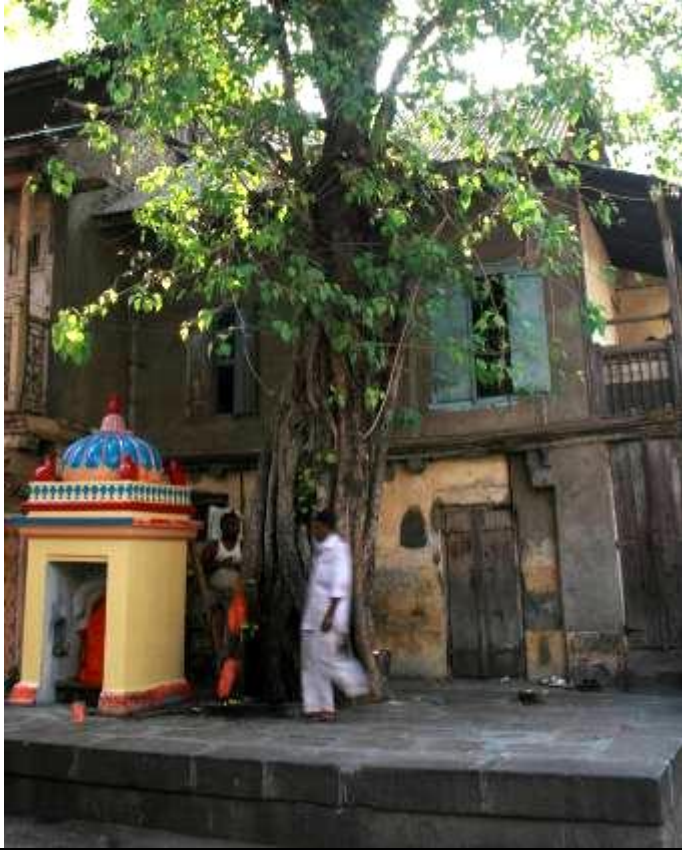
Bench 4
Description: Wooden bench
Rate = ` 3500 to 4500 per sqm



Bench 5
Description: Cement bench
Rate = ` 3500 to 4500 per sqm




Bench 6
Description: Iron bench
Rate = ` 3500 to 4500 per sqm



Bench 7
Description: Traditional stone
paar
Rate = ` 5500 to 7500 per sqm


For all of the above constructions the thumb rule is to do minimum of 3 sqm construction

Type	Rate
 <p>The top photograph shows a blue plastic bench with a slatted backrest and armrests, situated outdoors on a lawn. The bottom photograph shows a wooden bench with a slatted backrest and armrests, situated outdoors on a dirt path.</p>	<p>Rate: _____ per unit (approx.)</p> <p>These benches are manufactured now on a very larger scale. These are manufactured from scrap plastic bottles. It takes about 2650 bottles to prepare one such unit. The bottles are sorted, cleaned, chopped into small pieces & mixed together with styrene (an oily liquid from plants) which binds it. This is further moulded to planks & poles to make benches, etc.</p> <p>Similarly, benches can be prepared from bamboo, recycled metals.</p>

Streets: Tree Guards

Type		Rate
		<p>Tree Guard 1 Description: Steel tree guard Minimum of 3 running meter work Rate = ` 5500 to 7500 per sqm with</p>
		<p>Tree Guard 2 Description: Iron tree guard Rate = ` 3500 to 5500 per sqm</p>
		<p>Tree Guard 3 Description: <i>Paar type</i> Rate = ` 5000 per sqm with Minimum of 3 running meters</p>


Streets: Cycle Track

Type	Rate
	<p>Cycle Track 1 Description: Preferably not to use interlocking blocks for cycle tracks as they are not useable. Tar road/ cement roads for cycles Rate = ` 1500 to 3500 per sqm</p>


Streets: Footpath

- Minimum width of the footpath to be 1.5m (Can be more depending on the traffic flow)
- Level of the footpath to be 200 mm above the road surface.

(Manual of Specifications & Standards of Highways through PPP – Prepared by IRC for PCI)

Type	Rate
	<p>Footpath 1 Description Rate = ` per 1850 sq meter</p>

Porous Pavements:

Type	Rate
	<p>Rate: _____ per sq. mtr. (approx.)</p> <p>These interlocking pavement blocks have gaps in between them. These gaps are usually filled in with soil, sand or by planting grass. These voids help rain & surface water to percolate through avoiding stagnation of water. These blocks are manufactured from reused concrete, fly ash, etc. Depending on the used the strength of them varies.</p>

Streets: Street Lights


- Street lights to be 30 mtrs apart from each other on all major roads of the city (Norms and Standards of Municipal Basic Services in India – NIUA)

Type	Rate
	<p>Street Lamp 1 Rate = ` 40000 to 45000 per fixture</p>
	<p>Street Lamp 2 Rate = ` 40000 to 45000 per fixture</p>
	<p>Street Lamp 3 Description: Solar street lamp Rate = ` 40000 to 45000 per fixture</p>


Streets: Pedestrian Crossings

- Minimum width of the crossing to be 1.5m (average width ranges from 2 to 4 mtrs.)
- All markings (bands) to be equally spaced – 500mm centre to centre.

(UTTIPEC Guidelines for Road Marking & Indian Road Federation Report)

Type	Rate
	<p>Zebra Crossing 1 Rate = ` 500 to 700 per sqm</p>


Traffic Control: Camera

Type	Rate
	Traffic control camera 1 Rate = `


Traffic Control: Directional Signage

Type	Rate
	Directional Signage 1 Rate = `

Traffic Control: Signage



Type	Rate
	<p>Description: Standard size prescribed sign ages are available on the RTO website as well as at nearest motor driving schools for reference Rate = ` 4500 per 600 mm diameter sign including the post cost</p>

Traffic Control: Signals

Type	Rate
	<p>Signal 1 Rate = ` 6 lakh for one square without timer Additional cost of timer is ` 75000 to ` 100000</p>


Toilets

- One bathroom/ latrine per 20 to 50 persons (7 to 10 households)


Type	Rate
	<p>Toilet 1</p> <p>Description: Designed specially for women</p> <p>Rate = ` 15000 per sqm to 60000 per sqm for 2 X 2 sq feet single unit</p>
	<p>Toilet 2</p> <p>Description: temporary urinal for particular occasions like festivals</p> <p>Rate = 200,000 per unit without trolley</p>

Water Supply

- Provision of one tap per 150 persons

Type	Rate
	<p>Public Stand Post</p> <p>Description: water taps for public purpose for pedestrians, urban poor and non formal sector workers</p> <p>Rate = per connection depending on the distance from the main line</p>

Storm Water Drainage

Type	Rate
	<p>Description: storm water drainage</p> <p>Rate = per connection depending on the distance from the main line</p>

For feed backs pl write to us



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