

1/2 **Ferrocement house**

10'x10' ferrocement dwelling

Estimation for 300\$ house										
Cement-Sand			Feet			Cubic feet			Total (INR)	
	Location	Number	Thickness	Width	Length	Total	Cement	Sand		Water
	Base	1	0.333333333	10	10	33.33333333	8.333333	20.83333	4.1666667	6067.0264
	Ceiling	1	0.166666667	10	10	16.66666667	4.166667	10.41667	2.0833333	
	Walls	3.2	0.166666667	6.7	10	35.73333333	8.933333	22.33333	4.4666667	
	Bath	2	0.166666667	2.5	7	5.833333333	1.458333	3.645833	0.7291667	
	Water Tank	1	0.166666667	2	10	3.333333333	0.833333	2.083333	0.4166667	
						<b>Total (cu. ft)</b>	<b>23.725</b>	<b>59.3125</b>	<b>11.8625</b>	
						<b>Kilograms</b>	1011.757	3228.444	---	
						<b>Cost</b>	<b>5058.783</b>	<b>1008.243</b>	---	
Steel Mesh	Location	Number	Layers	Width	Length	Area (sq. ft)	Total Area (sq. ft)	Cost/sq.ft	4870.48	
	Base		2	10	10	200	1058.8	4.6		
	Ceiling		3	10	10	300				
	Walls	3.2	2	6.7	10	428.8				
	Bath	2	2	2.5	7	70				
	Water Tank		3	2	10	60				
Bamboo	Number	11							Cost per 1 unit	25
Doors\Windows									500	
Water Purifier									899	
Solar LED lights									1000	
Assumptions							Cost in INR	13612		
	kg/cu ft	Rs/kg	Comments				Cost in USD	299.81		
Portland Cement	42.645171	5	250 Rs/50kg							
Sand	54.4310844	0.3123	3000 Rs/5m3							
Steel mesh			50 Rs/ sqm							

**Solution**

We tried to put ourselves in the shoes of the people who would occupy these houses and asked ourselves the questions.

- ◆ What kind of house would meet our basic needs?
- ◆ What kind of house could we afford?
- ◆ What kind of house would meet our aspirations and help us live with dignity?

Looking at the condition of the poor living around us we tried to find a solution to elevate these people from their present state. All of them aspire to live in a pucca house i.e. a house that is solid and permanent with basic amenities of a bathing area, cooking space and sleeping area. A cement concrete structure is hugely empowering for these people.

We were inspired to go for a cemented structure by one of the reasons TATA Motors decided to develop the 4 wheeled TATA Ace rather than a 3 wheeled rickshaw.

- ◆ Before starting the project, Wagh

'The \$300 House' Challenge

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Creative's profile

.vernon

**divernon**