

RAINWATER HARVESTING COST ANALYSIS

1. CORE COMPONENTS COST (AVERAGE)

Component	Average Cost (INR)
Filter Unit	12,500
Pipes & Fittings	8,000
First Flush Diverter	3,000
Labour & Installation	25,000

2. STORAGE TANK COST RANGES

Capacity (L)	Material	Average Cost (INR)
500	HDPE/Plastic	5,000
1,000	HDPE/Plastic	10,000
2,000	HDPE/Plastic	20,000
3,000	HDPE/Plastic/RCC	27,000
5,000	RCC/HDPE	35,000
10,000	RCC	70,000
15,000	RCC	105,000
20,000	RCC	140,000
25,000	RCC/Modular	175,000
50,000	RCC/Modular	350,000
100,000	RCC/Modular	700,000

3. RECHARGE STRUCTURE COSTS

Structure Type	Standard Dimensions	Total Cost (INR)
Recharge Pit	1.5×1.5×2.0 m	4,000
Recharge Trench	1.5×2.0×10 m	7,500
Recharge Shaft	1.5 m dia × 10 m	72,500
Borewell Recharge	200mm × 20m	90,000
Community Pond	10×10×2.5 m	120,000

4. CATEGORY-WISE TOTAL COSTS

CATEGORY 1: Storage Tank Only

Component	Cost (INR)
Storage Tank (2000L)	20,000
Filter Unit	8,000
Pipes & Fittings	6,000
First Flush	3,000
Labour	12,000
TOTAL	49,000

CATEGORY 2: Tank + Recharge Pit

Component	Cost (INR)
Storage Tank (3000L)	27,000
Recharge Pit	4,000
Filter Unit	10,000
Pipes & Fittings	8,000
First Flush	3,000
Labour	18,000
TOTAL	70,000

CATEGORY 3: Tank + Recharge Trench

Component	Cost (INR)
Storage Tank (5000L)	35,000
Recharge Trench	7,500
Filter Unit	12,000
Pipes & Fittings	10,000
First Flush	4,000
Labour	25,000
TOTAL	93,500

CATEGORY 4: Recharge Shaft/Borewell

Component	Cost (INR)
Storage Tank (10000L)	70,000
Recharge Shaft	72,500
Filter Unit	20,000
Pipes & Fittings	15,000
First Flush	5,000
Labour	40,000
TOTAL	222,500

CATEGORY 5: Decentralized Institutional

Component	Cost (INR)
Storage Tank (7500L)	52,500
Recharge Structure	25,000
Filter System	15,000
Pipes & Fittings	12,000
First Flush System	4,000
Installation & Misc	15,000
TOTAL	123,500
Annual Maintenance	5,000

CATEGORY 6: Centralized Community

Component	Cost (INR)
Central Storage (37500L)	262,500
Recharge Structure	150,000
Central Filter	42,000
Pipe Network	38,000
Pumps & Controls	27,000
Installation & Misc	45,000
TOTAL	564,500
Annual Maintenance	25,000

5. COST MODIFIERS

Factor	Multiplier
Urban Premium	1.15x
Rural Discount	0.85x
Hard Soil	1.25x
Soft Soil	0.90x
Premium Materials	1.20x
Contingency	1.15x
Government Subsidy	-10,000 to -50,000

6. PAYBACK ANALYSIS

Category	Payback Period (years)	Annual Savings (INR)
Category 1	10	10,000
Category 2	8	15,000
Category 3	6	22,000
Category 4	9	45,000
Category 5	14	30,000
Category 6	10	150,000