

Cost Estimates for KanchanTM Arsenic Filter Gem505 Version (June 2005)

Filter Characteristics

Container	Gem 505
Basin	Gem 1700
Flow Rate (L/hr)	15
Basin Volume (L)	19

Filter Unit Costs	<i>NRs</i>	<i>USD</i>
Container and lid	450	6.34
Basin	90	1.27
Piping	160	2.25
Sand and gravel	40	0.56
Iron nails	350	4.93
Bricks	5	0.07
Piyush (disinfection)	35	0.49
Transportation	50	0.70
Tools	15	0.21
Labour	50	0.70
Operation documentation	20	0.28

Storage Container Costs

Container with lid and spigot	200	2.82
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Total Cost	1465	20.63
Mark-up for Local NGO	147	2.06
10%		
Cost plus mark-up	1612	22.70

Note:

1. Training cost is not included in the above analysis.
2. Iron nails cost is assumed to be 70 Rs per kg. Five kg is required.
3. Piping materials costs include pipes, fittings, teflon tape, etc.
4. Sand and gravel cost include government tax and transportation (i.e. tractor rental, driver, fuel, etc.) to bring sand and gravel from river and/or crusher. It is assumed that full tractor loads will be all used to make filters with no waste sand and/or gravel.
5. Transportation is the cost for local entrepreneurs to transport plastic buckets and nails (in bulk) from district-level dealers, plus the cost to transport individual filters to each customer.
6. Labour cost include all costs associated to sieve and clean sand, to assemble piping system, to build filter, etc.
7. Plastic filters requires no mold. The tools cost is assumed to be 1000 Rs and can be used to manufacture 100 filters. Fuel is assumed to cost 5 Rs per filter. The total "tools" is 15 Rs per filter
8. Operation documentation cost include poster/ brochure to explain filter operation and maintenance.
9. Assume USD \$1 = 71 Nepali Rupees