

Cost Estimates for *Kanchan*TM Arsenic Filter Gem505 Version (August 2006)

Filter Characteristics

Container	Gem 505
Basin	Gem 1700
Container Volume (L)	50
Basin Volume (L)	19
Design Flow Rate (L/hr)	15 to 20

Filter Unit Costs	NRs	USD
Container and lid	379	5.26
Basin	73	1.01
Piping	205	2.85
Sand and gravel	40	0.56
Iron nails	365	5.07
Bricks	6	0.08
Piyush (disinfection)	35	0.49
Transportation	60	0.83
Tools and bags	15	0.21
Labour	80	1.11
Operation documentation	10	0.14
Total Cost	1268	17.61
10% Profit	127	1.76
Selling Price	1395	19.37

Note:

1. Training cost is not included in the above analysis.
2. Iron nails cost is 73 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. The tools cost (e.g. wrenches, screwdrivers, hot rod) is assumed to be 1000 Rs and can be used to manufacture 100 filters, thus 10 Rs per filter. Bags to hold the gravels and sand media costs 5 Rs.
8. Operation documentation cost include poster/ brochure to explain filter operation and maintenance.
9. Assume USD \$1 = 72 Nepali Rupees