

Criteria Report for Household Water Treatment Solutions

Community Choices Tool for Water, Sanitation, and Hygiene

Pacific Institute

Table of Contents

Household Water Treatment Solutions Criteria Report 2

Key Phrases Used in this Report: 2

Criteria used to rank Household Water Treatment Step 1 Solutions: 3

Criteria used to rank Household Water Treatment Step 2 Solutions: 9

Household Water Treatment Solutions Criteria Report

Criteria Used for Ranking Household Water Treatment Solutions

Below you can view information that clarifies how your individual answers to the questions impacted the Community Choices Tool's recommendations for technologies and approaches that are appropriate for your situation and needs.

NOTE: This demonstration prototype of the Community Choices Tool contains rankings for the few solutions we have in the database. We envision that once fully developed, the Community Choices Tool will be able to evaluate and rank hundreds of technologies and approaches for the entire WASH sector, and from those it will be able to create fully customized solutions for each user (rather than the static solutions it has now).

Key Phrases Used in this Report:

Very Appropriate	This approach or technology is likely to work very well
Appropriate	This approach/technology is likely to work
Somewhat Appropriate	This approach/technology is somewhat likely to work
Neutral	This technology may be inappropriate, not applicable, or neutral
Somewhat Inappropriate	This approach/technology is somewhat unlikely to work
Inappropriate	This approach/technology is unlikely to work
Very Inappropriate	This approach/technology is very unlikely to work
Should never be used	This technology or approach is not likely to succeed under these conditions

Criteria used to rank Household Water Treatment Step 1 Solutions:

#	Description	Moringa Seeds	Three Pot Sedimentation
1	Neutral Weight	Neutral	Neutral
2	Appropriate where diarrhea is present	Neutral	Neutral
3	Appropriate where blood in urine is present	Somewhat Appropriate	Neutral
4	Appropriate where vomiting is present	Somewhat Appropriate	Neutral
5	Appropriate where fever is present	Somewhat Appropriate	Neutral
6	Appropriate where skin infection itchy lesions brown to pink is present	Neutral	Neutral
7	Appropriate where joint pain/swelling is present	Somewhat Appropriate	Neutral
8	Appropriate where insomnia is present	Somewhat Appropriate	Neutral
9	Appropriate where water evaluated to cause illness	Neutral	Neutral
10	Appropriate where harmful chemicals and pollutants are present	Inappropriate	Inappropriate
11	Appropriate where water evaluated to have arsenic	Inappropriate	Inappropriate
12	Appropriate where water is colored	Somewhat Appropriate	Somewhat Appropriate
13	Appropriate where water tastes bad	Neutral	Neutral
14	Appropriate where water smells bad/has odor	Neutral	Neutral
15	Appropriate where water has particulate matter floating in it	Very Appropriate	Very Appropriate
16	Appropriate where water color is reddish/orange	Neutral	Neutral
17	Appropriate where water color is blue/green	Somewhat Inappropriate	Somewhat Inappropriate
18	Appropriate where water color is yellow or brown (tea-like)	Neutral	Somewhat Inappropriate

#	Description	Moringa Seeds	Three Pot Sedimentation
19	Appropriate where water color is dark brown or black	Neutral	Neutral
20	Appropriate where water color is clear or normal	Neutral	Neutral
21	Appropriate where water tastes like salt	Somewhat Appropriate	Somewhat Appropriate
22	Appropriate where water tastes like metal	Neutral	Neutral
23	Appropriate where water tastes sour	Neutral	Neutral
24	Appropriate where water tastes bitter	Neutral	Neutral
25	Appropriate where water smells like bleach	Neutral	Neutral
26	Appropriate where water smells like rot	Neutral	Neutral
27	Appropriate where water smells like sewage	Neutral	Neutral
28	Appropriate where water smells like sweet solvent	Neutral	Neutral
29	Appropriate where user does not pay for water	Somewhat Appropriate	Somewhat Appropriate
30	Appropriate where user pays a flat fee for water regardless of quantity	Neutral	Neutral
31	Appropriate where user pays per unit of water	Somewhat Appropriate	Appropriate
36	Appropriate where needs to pay less for water	Appropriate	Appropriate
37	Appropriate where can pay same for water	Somewhat Appropriate	Appropriate
38	Appropriate where can pay more for water	Somewhat Appropriate	Somewhat Appropriate
39	Appropriate where can pay a little more for water	Somewhat Appropriate	Appropriate

#	Description	Moringa Seeds	Three Pot Sedimentation
40	Appropriate where currently use settling/sedimentation	Somewhat Appropriate	Neutral
41	Appropriate where currently use straining	Somewhat Appropriate	Somewhat Appropriate
42	Appropriate where currently use filter	Somewhat Appropriate	Neutral
43	Appropriate where currently use chlorine (tablets or liquid)	Neutral	Somewhat Appropriate
44	Appropriate where currently use PuR	Neutral	Neutral
45	Appropriate where currently use Watermaker	Neutral	Neutral
46	Appropriate where currently use WaterGuard	Neutral	Neutral
47	Inappropriate where formerly used settling/sedimentation	Neutral	Should never be used
48	Inappropriate where formerly used straining	Neutral	Neutral
49	Inappropriate where formerly used filter	Neutral	Neutral
50	Inappropriate where formerly used BioSand filter	Neutral	Neutral
51	Inappropriate where formerly used Ceramic Candle filter	Neutral	Neutral
52	Inappropriate where formerly used Ceramic Pot filter	Neutral	Neutral
53	Inappropriate where formerly used chlorine (tablets or liquid)	Neutral	Neutral
54	Inappropriate where formerly used PuR	Neutral	Neutral
55	Inappropriate where formerly used Watermaker	Neutral	Neutral
56	Inappropriate where formerly used WaterGuard	Neutral	Neutral

#	Description	Moringa Seeds	Three Pot Sedimentation
57	Inappropriate where formerly used WaterGuard	Neutral	Neutral
58	Inappropriate where formerly used Moringa seeds	Should never be used	Neutral
59	Inappropriate where formerly used LifeStraw	Neutral	Neutral
60	Inappropriate where expensive	Somewhat Appropriate	Somewhat Appropriate
61	Inappropriate where frequent replacements needed	Neutral	Somewhat Appropriate
62	Inappropriate where complex to operate or maintain	Neutral	Somewhat Appropriate
63	Inappropriate where significant time needed to operate or maintain	Somewhat Inappropriate	Somewhat Appropriate
64	Inappropriate where treatment time is long	Neutral	Somewhat Inappropriate
65	Appropriate where storage container with small opening or narrow neck is readily available.	Neutral	Neutral
66	Appropriate where medium container with large opening is readily available.	Somewhat Appropriate	Appropriate
67	Appropriate where large storage container with large opening is readily available.	Neutral	Somewhat Appropriate
68	Appropriate where medium-sized clear plastic bottles with tops are readily available.	Neutral	Neutral
69	Appropriate where concrete is readily available.	Neutral	Neutral
70	Appropriate where chlorine (tablets or liquid) is readily available.	Neutral	Neutral
71	Appropriate where rusty nails are readily available.	Neutral	Neutral
72	Appropriate where wood or fuel are readily available.	Neutral	Neutral

#	Description	Moringa Seeds	Three Pot Sedimentation
73	Appropriate where someone can only follow instructions with pictures	Somewhat Appropriate	Very Appropriate
74	Appropriate where someone can read and follow detailed instructions with text only	Appropriate	Somewhat Appropriate
75	Appropriate where have access to an engineer or someone to test water	Somewhat Appropriate	Neutral
76	Appropriate where have access to someone experienced with concrete construction	Neutral	Neutral
77	Appropriate where have access to someone who can weld	Neutral	Neutral
78	Appropriate where have access to microlending group for assistance	Neutral	Neutral
79	Appropriate where water tastes like faeces or urine	Somewhat Inappropriate	Somewhat Inappropriate
80	Appropriate where water has no odor	Neutral	Neutral
81	Appropriate where sand, pebbles, rocks are readily available.	Neutral	Neutral
82	Appropriate where pipe or tubing is readily available.	Neutral	Neutral
84	Appropriate where sewage or faeces is present	Neutral	Neutral
85	Appropriate where water is cloudy or turbid	Very Appropriate	Somewhat Appropriate
86	Appropriate where moringa seed is readily available	Very Appropriate	Neutral
87	Appropriate where someone can read and follow instructions with text and some pictures	Appropriate	Somewhat Appropriate
88	Appropriate where someone can read and follow instructions with text, pictures, and maths	Very Appropriate	Neutral

#	Description	Moringa Seeds	Three Pot Sedimentation
89	Appropriate where someone can read and follow detailed instructions with text only and maths	Very Appropriate	Neutral
90	Appropriate where have access to Red Cross/Red Crescent	Appropriate	Somewhat Appropriate
91	Appropriate where have access to Rotary Club	Appropriate	Neutral
92	Appropriate where have no access to skilled people or organizations	Somewhat Appropriate	Very Appropriate
93	Appropriate where fatigue is experienced	Neutral	Somewhat Appropriate
94	Appropriate where skin infection burning sensation then white worm is present	Neutral	Neutral
95	Appropriate skin infection black or white lesion is present	Inappropriate	Inappropriate
96	Appropriate where there is no access to any source of potable water	Somewhat Appropriate	Appropriate
97	Appropriate where less household water treatment is required	Neutral	Neutral

Criteria used to rank Household Water Treatment Step 2 Solutions:

#	Description	BioSand Filter	Boiling	Ceramic Candle Filter	Ceramic Pot Filter	Chlorination	Kanchan Arsenic Filter
1	Neutral Weight	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
2	Appropriate where diarrhea is present	Somewhat Appropriate	Very Appropriate	Somewhat Appropriate	Somewhat Appropriate	Appropriate	Somewhat Appropriate
3	Appropriate where blood in urine is present	Appropriate	Appropriate	Appropriate	Appropriate	Somewhat Appropriate	Somewhat Appropriate
4	Appropriate where vomiting is present	Appropriate	Appropriate	Appropriate	Appropriate	Neutral	Somewhat Appropriate
5	Appropriate where fever is present	Appropriate	Appropriate	Appropriate	Appropriate	Somewhat Appropriate	Somewhat Appropriate
6	Appropriate where skin infection itchy lesions brown to pink is present	Appropriate	Very Appropriate	Appropriate	Appropriate	Neutral	Appropriate
7	Appropriate where joint pain/swelling is present	Appropriate	Appropriate	Appropriate	Appropriate	Somewhat Appropriate	Somewhat Appropriate
8	Appropriate where insomnia is present	Appropriate	Appropriate	Appropriate	Appropriate	Neutral	Somewhat Appropriate
9	Appropriate where water evaluated to cause illness	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
10	Appropriate where harmful chemicals and pollutants are present	Inappropriate	Inappropriate	Inappropriate	Inappropriate	Inappropriate	Inappropriate
11	Appropriate where water evaluated to have arsenic	Very Inappropriate	Very Inappropriate	Very Inappropriate	Very Inappropriate	Very Inappropriate	Very Appropriate
12	Appropriate where water is colored	Somewhat Appropriate	Neutral	Somewhat Appropriate	Somewhat Appropriate	Neutral	Somewhat Appropriate
13	Appropriate where water tastes bad	Appropriate	Neutral	Somewhat Appropriate	Appropriate	Neutral	Appropriate
14	Appropriate where water smells bad/has odor	Appropriate	Neutral	Somewhat Appropriate	Appropriate	Neutral	Appropriate
15	Appropriate where water has particulate matter floating in it	Somewhat Appropriate	Neutral	Somewhat Appropriate	Appropriate	Neutral	Somewhat Appropriate
16	Appropriate where water color is reddish/orange	Neutral	Neutral	Neutral	Neutral	Somewhat Appropriate	Neutral

#	Description	BioSand Filter	Boiling	Ceramic Candle Filter	Ceramic Pot Filter	Chlorination	Kanchan Arsenic Filter
17	Appropriate where water color is blue/green	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Inappropriate
18	Appropriate where water color is yellow or brown (tea-like)	Somewhat Inappropriate	Somewhat Appropriate	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Appropriate	Somewhat Inappropriate
19	Appropriate where water color is dark brown or black	Neutral	Neutral	Neutral	Neutral	Somewhat Appropriate	Neutral
20	Appropriate where water color is clear or normal	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
21	Appropriate where water tastes like salt	Somewhat Appropriate	Neutral	Appropriate	Appropriate	Neutral	Appropriate
22	Appropriate where water tastes like metal	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
23	Appropriate where water tastes sour	Somewhat Appropriate	Neutral	Somewhat Appropriate	Somewhat Appropriate	Neutral	Somewhat Appropriate
24	Appropriate where water tastes bitter	Somewhat Appropriate	Neutral	Somewhat Appropriate	Somewhat Appropriate	Neutral	Somewhat Appropriate
25	Appropriate where water smells like bleach	Neutral	Neutral	Neutral	Neutral	Neutral	Appropriate
26	Appropriate where water smells like rot	Somewhat Appropriate	Neutral	Neutral	Neutral	Neutral	Somewhat Appropriate
27	Appropriate where water smells like sewage	Somewhat Appropriate	Neutral	Neutral	Neutral	Neutral	Somewhat Appropriate
28	Appropriate where water smells like sweet solvent	Neutral	Neutral	Neutral	Neutral	Neutral	Somewhat Appropriate
29	Appropriate where user does not pay for water	Appropriate	Appropriate	Appropriate	Appropriate	Somewhat Appropriate	Appropriate
30	Appropriate where user pays a flat fee for water regardless of quantity	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Neutral	Somewhat Appropriate
31	Appropriate where user pays per unit of water	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Appropriate	Somewhat Inappropriate
36	Appropriate where needs to pay less for water	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Inappropriate	Appropriate	Somewhat Inappropriate

#	Description	BioSand Filter	Boiling	Ceramic Candle Filter	Ceramic Pot Filter	Chlorination	Kanchan Arsenic Filter
37	Appropriate where can pay same for water	Somewhat Inappropriate	Neutral	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Appropriate	Somewhat Inappropriate
38	Appropriate where can pay more for water	Appropriate	Appropriate	Appropriate	Appropriate	Somewhat Appropriate	Appropriate
39	Appropriate where can pay a little more for water	Somewhat Inappropriate	Neutral	Neutral	Somewhat Inappropriate	Somewhat Appropriate	Somewhat Inappropriate
40	Appropriate where currently use settling/sedimentation	Neutral	Somewhat Appropriate	Somewhat Appropriate	Neutral	Somewhat Appropriate	Neutral
41	Appropriate where currently use straining	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate
42	Appropriate where currently use filter	Neutral	Neutral	Neutral	Neutral	Somewhat Appropriate	Neutral
43	Appropriate where currently use chlorine (tablets or liquid)	Neutral	Neutral	Neutral	Somewhat Appropriate	Neutral	Neutral
44	Appropriate where currently use PuR	Somewhat Appropriate	Neutral	Somewhat Appropriate	Somewhat Appropriate	Neutral	Somewhat Appropriate
45	Appropriate where currently use Watermaker	Somewhat Appropriate	Neutral	Somewhat Appropriate	Somewhat Appropriate	Neutral	Somewhat Appropriate
46	Appropriate where currently use WaterGuard	Somewhat Appropriate	Neutral	Somewhat Appropriate	Somewhat Appropriate	Neutral	Somewhat Appropriate
47	Inappropriate where formerly used settling/sedimentation	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
48	Inappropriate where formerly used straining	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
49	Inappropriate where formerly used filter	Should never be used	Neutral	Neutral	Neutral	Neutral	Neutral
50	Inappropriate where formerly used BioSand filter	Neutral	Neutral	Neutral	Neutral	Neutral	Should never be used
51	Inappropriate where formerly used Ceramic Candle filter	Neutral	Neutral	Should never be used	Neutral	Neutral	Neutral
52	Inappropriate where formerly used Ceramic Pot filter	Neutral	Neutral	Neutral	Should never be used	Neutral	Neutral

#	Description	BioSand Filter	Boiling	Ceramic Candle Filter	Ceramic Pot Filter	Chlorination	Kanchan Arsenic Filter
53	Inappropriate where formerly used chlorine (tablets or liquid)	Neutral	Neutral	Neutral	Neutral	Should never be used	Neutral
54	Inappropriate where formerly used PuR	Neutral	Should never be used	Neutral	Neutral	Neutral	Neutral
55	Inappropriate where formerly used Watermaker	Neutral	Neutral	Neutral	Neutral	Should never be used	Neutral
56	Inappropriate where formerly used WaterGuard	Neutral	Neutral	Neutral	Neutral	Should never be used	Neutral
57	Inappropriate where formerly used WaterGuard	Neutral	Neutral	Neutral	Neutral	Should never be used	Neutral
58	Inappropriate where formerly used Moringa seeds	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
59	Inappropriate where formerly used LifeStraw	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
60	Inappropriate where expensive	Inappropriate	Inappropriate	Inappropriate	Inappropriate	Somewhat Inappropriate	Inappropriate
61	Inappropriate where frequent replacements needed	Somewhat Appropriate	Somewhat Inappropriate	Inappropriate	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Appropriate
62	Inappropriate where complex to operate or maintain	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate
63	Inappropriate where significant time needed to operate or maintain	Inappropriate	Somewhat Appropriate	Somewhat Inappropriate	Somewhat Inappropriate	Somewhat Appropriate	Inappropriate
64	Inappropriate where treatment time is long	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate
65	Appropriate where storage container with small opening or narrow neck is readily available.	Somewhat Appropriate	Somewhat Appropriate	Neutral	Neutral	Neutral	Somewhat Appropriate
66	Appropriate where medium container with large opening is readily available.	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
67	Appropriate where large storage container with large opening is readily available.	Somewhat Appropriate	Neutral	Neutral	Neutral	Neutral	Appropriate

#	Description	BioSand Filter	Boiling	Ceramic Candle Filter	Ceramic Pot Filter	Chlorination	Kanchan Arsenic Filter
68	Appropriate where medium-sized clear plastic bottles with tops are readily available.	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
69	Appropriate where concrete is readily available.	Appropriate	Neutral	Neutral	Neutral	Neutral	Appropriate
70	Appropriate where chlorine (tablets or liquid) is readily available.	Neutral	Neutral	Neutral	Neutral	Very Appropriate	Neutral
71	Appropriate where rusty nails are readily available.	Neutral	Neutral	Neutral	Neutral	Neutral	Very Appropriate
72	Appropriate where wood or fuel are readily available.	Neutral	Very Appropriate	Neutral	Neutral	Neutral	Neutral
73	Appropriate where someone can only follow instructions with pictures	Inappropriate	Very Appropriate	Neutral	Neutral	Somewhat Appropriate	Inappropriate
74	Appropriate where someone can read and follow detailed instructions with text only	Somewhat Inappropriate	Neutral	Appropriate	Appropriate	Appropriate	Somewhat Inappropriate
75	Appropriate where have access to an engineer or someone to test water	Appropriate	Neutral	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Appropriate
76	Appropriate where have access to someone experienced with concrete construction	Appropriate	Neutral	Neutral	Neutral	Neutral	Appropriate
77	Appropriate where have access to someone who can weld	Appropriate	Neutral	Neutral	Neutral	Neutral	Appropriate
78	Appropriate where have access to microlending group for assistance	Somewhat Appropriate	Neutral	Somewhat Appropriate	Somewhat Appropriate	Neutral	Somewhat Appropriate
79	Appropriate where water tastes like faeces or urine	Somewhat Inappropriate	Very Appropriate	Somewhat Inappropriate	Somewhat Inappropriate	Very Appropriate	Somewhat Inappropriate
80	Appropriate where water has no odor	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
81	Appropriate where sand, pebbles, rocks are readily available.	Somewhat Appropriate	Neutral	Neutral	Neutral	Neutral	Somewhat Appropriate
82	Appropriate where pipe or tubing is readily available.	Somewhat Appropriate	Neutral	Neutral	Neutral	Neutral	Somewhat Appropriate

#	Description	BioSand Filter	Boiling	Ceramic Candle Filter	Ceramic Pot Filter	Chlorination	Kanchan Arsenic Filter
84	Appropriate where sewage or faeces is present	Neutral	Very Appropriate	Neutral	Neutral	Appropriate	Neutral
85	Appropriate where water is cloudy or turbid	Appropriate	Neutral	Appropriate	Appropriate	Neutral	Appropriate
86	Appropriate where moringa seed is readily available	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
87	Appropriate where someone can read and follow instructions with text and some pictures	Somewhat Inappropriate	Somewhat Appropriate	Very Appropriate	Very Appropriate	Very Appropriate	Somewhat Inappropriate
88	Appropriate where someone can read and follow instructions with text, pictures, and maths	Appropriate	Neutral	Somewhat Appropriate	Somewhat Appropriate	Appropriate	Appropriate
89	Appropriate where someone can read and follow detailed instructions with text only and maths	Very Appropriate	Neutral	Somewhat Appropriate	Somewhat Appropriate	Very Appropriate	Very Appropriate
90	Appropriate where have access to Red Cross/Red Crescent	Neutral	Somewhat Appropriate	Appropriate	Appropriate	Appropriate	Neutral
91	Appropriate where have access to Rotary Club	Appropriate	Neutral	Appropriate	Neutral	Appropriate	Appropriate
92	Appropriate where have no access to skilled people or organizations	Neutral	Very Appropriate	Neutral	Neutral	Somewhat Appropriate	Neutral
93	Appropriate where fatigue is experienced	Appropriate	Appropriate	Somewhat Appropriate	Appropriate	Somewhat Appropriate	Somewhat Appropriate
94	Appropriate where skin infection burning sensation then white worm is present	Appropriate	Very Appropriate	Appropriate	Appropriate	Neutral	Somewhat Appropriate
95	Appropriate skin infection black or white lesion is present	Very Inappropriate	Very Inappropriate	Very Inappropriate	Very Inappropriate	Very Inappropriate	Very Appropriate
96	Appropriate where there is no access to any source of potable water	Very Appropriate	Very Appropriate	Very Appropriate	Very Appropriate	Very Appropriate	Appropriate
97	Appropriate where less household water treatment is required	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate	Somewhat Appropriate