

PPI Project: 4th Quarter Progress (June – Aug, 2020)
Cum
2nd Year Project Completion Report (Sept'19-Aug'20)

“Addressing drinking water quality & health issues through sustainable bio filter technology in rural villages of Morni hills area, Panchkula (Haryana)”

Submitted to:

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A. PPI project : Brief summary of activities implemented till 3rd quarter (Sept' 19- May'20) of 2nd year

Key aim on ongoing PPI project is to disseminate bio-sand filter technology in water quality affected village of Morni hills area of Panchkula district (Haryana). Total duration of project is 03 years (Sept 2018- Aug 2021). During 2nd year of project (Sept-19- Aug' 20), SATHI proposed to undertake - **Community mobilization & sensitization meetings in 05 villages, beneficiary selection , collection of 20% cash contribution, filter development & installation (60 nos.) and user education –follow up activities.** From Sept'19 onwards, SATHI has started implementation of 2nd year PPI project activities. Brief summary of activities implemented by SATHI till 3rd quarter (Sept'19- May'20) of 2nd year of project is elaborate as follows:-

- **Village level meetings:**

First major activity of PPI project was community mobilization & sensitization. During Sept-Oct '19 month, SATHI organized village meetings in 2nd year project villages (*Badara, Tikkar Tal , Morni –Ramsar, Bhiwar & Thandog Saryon.*). During meeting SATHI educated the community about Bio-sand filters technology, removal of biological - physical contamination from water through BSF, low operation & maintenance cost, beneficiaries selection criteria, 20 % cash contribution, educational material; and regular follow up visit of village etc.

- **Awareness cum Training camp**

After village meetings, SATHI conducted “Awareness cum training camps” in 05 project villages of 2nd Year. Key objective of the same was to educate & practically train project community about Bio-sand filter technology. SATHI developed a fiber glass prototype of filter & through this community was educated on Bio-sand Filter parts, (Diffuser Plate, Filtration Sand, Separation - Drainage Gravel, Lid, Outlet Tube etc) . Project beneficiaries were also informed /instructed in details about development, installation and operation & maintenances of filters.

- **Beneficiaries selection & Collection of 20% cash contribution**

Under PPI project, SATHI proposed to develop 60 Bio Sand Water Filters during 2nd year (Sept'19- Aug'20). During Sept-Oct 19, SATHI team with consultation of local SHG & PRI finalized 2nd year beneficiaries of PPI project. After final selection, respective PPI project beneficiaries started collection of 20 % cash contribution towards development & installation of filters. Till end of 2nd quarter all 60 beneficiaries deposited their cash contribution to SATHI.

- **Filter development & installation**

After final selection of beneficiaries & collection of 20 % cash contribution, SATHI initiated construction process of concrete filter. Due to lack of transportation facilities in project villages, SATHI initiated filter construction at Thakurdwara campus. After construction and testing, filters were transported to project village & installed by SATHI at respective beneficiary's households.

Till end of 3rd quarter, SATHI distributed total 60 Nos. filters to beneficiaries in 05 project villages (8 no. - 1st quarter, 20 no. - 2nd quarter & 32 no. - 3rd quarter).

- **IEC Material distribution & User information**

Besides filter installation, SATHI distributed education material (wall poster, stickers) to 60 filter beneficiaries of 2nd year. PPI project beneficiaries are also trained on operation & maintenance of filters. In context of IEC material, details regarding bio-sand filter, its effectiveness, precautions for use of filters, technical aspects of filters etc are highlighted in wall poster. In addition, name of funding agency, implementing agency, filter number, year, technical assistance & contact etc are clearly mentioned on stickers & stick on outer wall of installed filter.

- **Follow up visits**

To analyze impact of PPI project, SATHI team is also conducting regular follow with beneficiary families. Till end of 3rd quarter, SATHI conducted two (02) follow up visits. On dated 8th - 11th Jan 2020 , SATHI team carried out 1st follow up visit of 8 nos. beneficiaries of 1st quarter. Likewise, from dated 23rd - 25th April 2020 , 2019 SATHI team carried out 2nd follow up visit to 28 nos. beneficiaries of 1st & 2nd quarter.

B. PPI project : Activities implemented during 4th quarter (Jun-Aug'20) of 2nd year

As mentioned earlier, under PPI project SATHI proposed to develop & distribute total 60 Nos. Bio-sand Filters in 05 villages of project region in 2nd year. . **Till end of 3rd quarter of 2nd year of project, SATHI distributed total 60 Nos. filters to beneficiaries in 05 project villages. Out of total 60, 08 families were covered in 1st quarter (Sept-Nov'19); 20 during 2nd quarter (Dec'19-Feb'20) & 32 during 3rd quarter (Mar - May'20).** All beneficiaries & their family members have been trained by SATHI in filter use, operation & maintenance. If some technical problems regarding filter use persist, it is rectified by SATHI team.

During 4th quarter (Jun-Aug' 20) of 2nd year of PPI project, following activities were accomplished by SATHI:-

- (i) **Village level meetings (with proper social distancing):**

During 4th quarter (Jun-Aug'20), SATHI tem conducted village level meetings in all 2nd year villages of PPI project (Haryana). Key objective of the same was to encourage the project community for regular use of filters. **Due to COVID-19 pandemic, SATHI team has taken all precautionary measures to conduct village meetings i.e. proper social distancing, use of face mask & hand sanitizers etc.** Community has been informed that during lean period (May-June) most families fetch water from far distant open –contaminated water sources. With the help of bio-

sand filter, they can 100 % purify fetched water and thus minimize risk of water borne illness. During village meetings, community is also encouraged to maintain personal hygiene & sanitation.

(ii) Follow-up visit

During Jul - Aug 2020 , SATHI team carried out follow up visit to all 60 beneficiaries of 2nd year of PPI project . Overall, it was 3rd follow up visit during 2nd year of PPI project implementation. Data of follow up visit tabulated in Multi Follow-Up Visit Monitoring Form, which is as follows:-

Bio-sand Filter Multi Follow - Up Visit Monitoring Form

✓ If acceptable
X If unacceptable

Date of Follow-Up: 28th July -5th August 2020

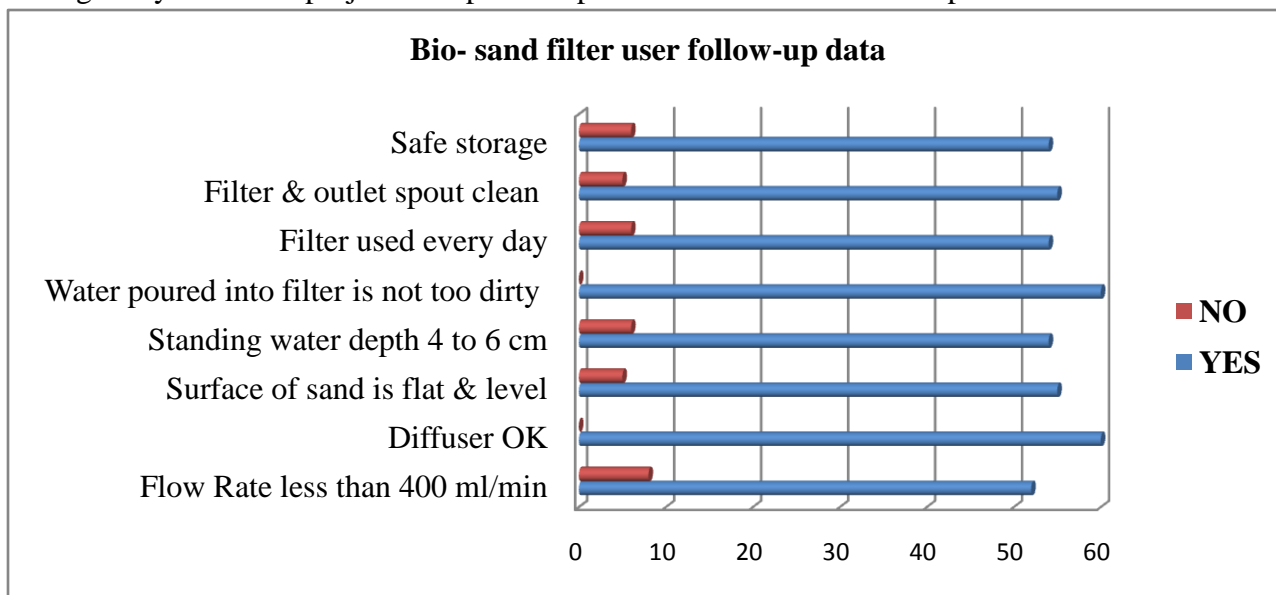
Filter Number	HH/Beneficiary Name	Flow rate (ml/min)	Flow Rate less than 400 ml/min	Diffuser OK	Surface of sand is flat & level	Standing water depth 4 to 6 cm	Water poured into filter is not too dirty	Filter used every day	Filter & outlet spout clean	Safe storage
1	Sandhya Devi	400 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
2	Prem Devi	400 ml/m	✓	✓	✓	✓	✓	✓	X	✓
3	Poonam	405 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
4	Chinto Devi	320 ml/m	X	✓	✓	X	✓	X	✓	X
5	Kaushlya Devi	405 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
6	Manti Devi	400 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
7	Hira Devi	400 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
8	Laxmi Devi	410 ml/m	✓	✓	X	✓	✓	X	✓	✓
9	Indu	400 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
10	Sunita Devi	400 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
11	Kiran Kaushik	400 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
12	Neeru Sharma	400 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
13	Pooja Rani	400 ml/m	✓	✓	✓	✓	✓	✓	X	✓
14	Poonam Sharma	400 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
15	Prem Devi	410 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
16	Bimla Devi	540 ml/m	X	✓	X	✓	✓	X	✓	✓
17	Maya Devi	400 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
18	Sunita Devi	400 ml/m	✓	✓	✓	✓	✓	✓	✓	X
19	Lajwanti Devi	400 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
20	Dayawanti	390 ml/m	✓	✓	✓	✓	✓	✓	✓	✓
21	Janki Devi	500 ml/m	X	✓	✓	✓	✓	✓	✓	✓
22	Reena Devi	395 ml/m	✓	✓	✓	X	✓	X	✓	✓

23	Khema Devi	400 ml/m	√	√	√	√	√	√	√	X
24	Bimlesh Devi	405 ml/m	√	√	√	√	√	√	√	√
25	Sunita Sharma	400 ml/m	√	√	√	√	√	√	√	√
26	Suman Devi	400 ml/m	√	√	√	√	√	√	X	√
27	Somi Devi	410 ml/m	√	√	√	√	√	√	√	√
28	Bhagwanti	400 ml/m	√	√	√	√	√	√	√	√
29	Hira Devi	400 ml/m	√	√	√	√	√	√	√	√
30	Sheela Devi	450 ml/m	X	√	√	√	√	√	√	√
31	Santosh Devi	400 ml/m	√	√	√	√	√	√	√	√
32	Lalita Sharma	420 ml/m	√	√	√	√	√	√	√	√
33	Promila Devi	430 ml/m	√	√	√	X	√	√	√	√
34	Sita Devi	380 ml/m	X	√	X	√	√	X	√	√
35	Sushma Devi	420 ml/m	√	√	√	√	√	√	√	√
36	Kamlesh Devi	400 ml/m	√	√	√	√	√	√	√	X
37	Khema Devi	410 ml/m	√	√	√	√	√	√	√	√
38	Nirmal Devi	400 ml/m	√	√	√	√	√	√	√	√
39	Bimla Devi	400 ml/m	√	√	√	√	√	√	√	√
40	Bhagirathi Devi	430 ml/m	√	√	√	√	√	√	√	√
41	Bagwanti Devi	510 ml/m	X	√	√	X	√	√	X	√
42	Babli Devi	400 ml/m	√	√	√	√	√	√	√	√
43	Roop Devi	450 ml/m	√	√	√	√	√	√	√	√
44	Sulindra Devi	400 ml/m	√	√	√	√	√	√	√	√
45	Uma Devi	420 ml/m	√	√	X	√	√	√	√	X
46	Santosh Thakur	400 ml/m	√	√	√	√	√	√	√	√
47	Narti Devi	430 ml/m	√	√	√	√	√	√	√	√
48	Mathura Devi	400 ml/m	√	√	√	√	√	√	√	√
49	Hira Devi-I	390 ml/m	√	√	√	√	√	√	√	√
50	Mamta Devi	495 ml/m	X	√	√	X	√	X	√	√
51	Promila Devi-I	400 ml/m	√	√	√	√	√	√	√	√
52	Hira Devi-II	410 ml/m	√	√	√	√	√	√	√	√
53	Prem Devi	400 ml/m	√	√	√	√	√	√	√	√
54	Promila Devi-II	430 ml/m	√	√	X	√	√	√	√	X
55	Anita Devi	400 ml/m	√	√	√	√	√	√	√	√
56	Sukh Devi	400 ml/m	√	√	√	√	√	√	√	√
57	Rita Devi	430 ml/m	√	√	√	√	√	√	√	√
58	Khema Devi	340 ml/m	X	√	√	X	√	√	X	√
59	Uma Kumari	400 ml/m	√	√	√	√	√	√	√	√
60	Lajwanti Devi	400 ml/m	√	√	√	√	√	√	√	√
TOTAL √			52	60	55	54	60	54	55	54
TOTAL X			08	00	05	06	00	06	05	06

Technician: Mr. Mohit Sharma

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During end of July & first week of Aug'2020 SATHI team carried out user follow up visit to all 60 beneficiaries of 2nd year of PPI project (Haryana) . Overall it was 3rd follow up visit conducted during 2nd year of PPI project . Graphical representation of user-follow up data is as below:-



During follow up visit, it was observed by SATHI team that out of 60 families (which were covered under follow up visit), 54 families are using filter regularly. All these 54 families are very satisfied with quality & taste of water & majority of them are using filtered water for drinking as well as for cooking purposes. Some families have also reported about reduction in water borne illness & general health improvement after regular use of bio-sand filter water.

During follow up visits, it was found that 06 families/ beneficiaries were not using the filter. SATHI team informed these 06 families about health benefit of safe water & motivated them to use filter regularly. In addition to user follow-up, SATHI technical team also reviewed physical status of each concrete filter and found minor technical issues (lower flow rate of water, sand level not flat etc) in 5-6 filters. These minor issues were rectified by SATHI team at spot. Over all, about 90 % families are using filter regularly.

C. Concluding Remark

Major objective of ongoing PPI project is to address poor drinking water quality issue in some remote pockets of Morni hills area of Panchkula district of Haryana state. Total duration of project is 03 years. During 2nd Year of project (Sept'19-Aug'20), SATHI firstly conducted community mobilization activities & thereafter developed & installed 60 no. concrete bio-sand filters in 05 villages of Morni region. Users are also trained on O&M of filters.

To analysis the effectiveness of program, SATHI also conducted regular follow up with user. During 2nd year of project SATHI conducted total 03 follow up visits of project villages. On the

basis of user follow up data, about 90 % (54 out of 60) of PPI beneficiaries are using filter regularly. Remaining families are also educated & motivated to use filter regularly. During upcoming year (3rd year of project), SATHI will cover other water quality affected villages of Morni region (Haryana) under bio-sand filter programme.
