Supplementary Tables

Table S1: Debris Distribution in Shorelines along with top 3 categories contribution

S.No.	Categories	Total quantities recorded	Categories (%)	Mean ± Std.	Top 3 subcategories observed	Sub-categories (%)
1.	Disposables	600	6.058	0.02 ± 0.02	Disposables plastic cutleries	63.83
					Straws	0.33
					Water Bottles	35.83
2.	Fishing related debris	1063	10.733	0.03 ± 0.02	Rope pieces	7.24
					Thermocols	90.03
					Waste Net pieces	2.73
3.	Fragments	286	2.89	0.01 ± 0.01	Foam	9.44
					Hard Plastic Fragments	66.08
					Plastic Fragments	24.48
4.	Hard Plastic	406	4.1	0.01 ± 0.01	Bottle Caps	55.91
					Bottles and Containers	25.12
					Others	12.56
5.	Medical related debris	188	1.9	0.004 ± 0.01	Medicinal Packaging (Syringe, Droppers)	22.87
					Medicine wrappers	77.13
6.	Others	14	0.14	0.0003 ± 0	E-waste	28.57
					Glass Bottles	28.57
					Plastic Mats	21.43
7.	Packaging plastic debris	5415	54.67	0.14 ± 0.07	Food wrappers	26.19
					PCCPs wrappers (shampoo, detergents, soaps and cosmetic products sachets)	34.83
					Plastic Bags	27.65
8.	Spare parts	0	0	0 ± 0	Spare Parts	0
9.	Textile related debris	136	1.37	0.003 ± 0	Belt pieces	1.47
					Cloth pieces	0.74
					Shoe and Slippers	97.79
10.	Tobacco related debris	1796	18.13	0.04 ± 0.08	Lighters	0.06
					Tobacco wrappers	99.94

Table S2: Debris Distribution in Floodplains along with top 3 categories contribution

S.No.	Categories	Total quantities recorded	Categories (%)	Mean ± Std.	Top 3 categories	Sub categories (%)
1	Disposables	1184	4.25	0.3 ± 0.4	Disposable plastic cutleries	67.82
					Paper Cups	19.51
					Straws (lolypops)	8.19
2	Fishing related debris	635	2.28	0.16 ± 0.09	Nets	9.45
					Plastic ropes	40.79
					Thermocols	49.76
3	Fragments	7962	28.61	1.99 ± 1.08	Foam fragments	0.78
					Hard plastic fragments	9.57
					Single use plastic fragments	89.4
4	Hard Plastic	494	1.78	0.12 ± 0.12	Hard plastics/ Bottle caps	60.73
					PCCPs (Bottles and tubes)	9.11
					Plastic Bottles and containers	21.26
5	Medical related debris	297	1.07	0.07 ± 0.08	Masks	1.35
					Medicine bottles	19.87
					Medicine wrappers	78.79
6	Others	2141	7.69	0.54 ± 0.64	Glass Bottles (Medicine, Beer, Wine)	1.31
					Papers	97.43
					Zips	0.75
7	Packaging plastic debris	10793	38.79	2.7 ± 1.33	Candy Wrappers	33.76
					Food wrappers	33.41
					Plastic Bags	21.75
8	Spare Parts	180	0.65	0.05 ± 0.06	Bicycle seats	1.11
					Iron /Tin/Steel	47.22
					Rubber Tube pieces	51.67
9	Textile related debris	451	1.62	0.11 ± 0.09	Belt pieces	0.89
					Cloth pieces	83.59

					Shoe and Slippers	14.86
10	Tobacco related debris	3689	13.26	0.92 ± 0.74	Cigarette Butt	2.03
					Cigarette pack	0.73
					Tobacco Wrappers	97.24

Table S3: Variation of debris distribution: Rural vs. Urban

S.No.	Categories	Rural_Debris_count	Rural_debris(%)	Rural_Mean ± Std.	Urban_Debris_Count	Urban_debris(%)	Urban_Mean ± Std.
1.	**Disposables**	1462	4.51	0.04 ± 0.02	322	6.05	0.05 ± 0.04
2.	**Fishing related debris**	1007	3.11	0.03 ± 0.02	116	2.18	0.02 ± 0.01
3.	**Fragments**	7541	23.27	0.2 ± 0.09	1282	24.08	0.19 ± 0.08
4.	**Hard Plastic**	751	2.32	0.02 ± 0.01	148	2.78	0.02 ± 0.01
5.	**Medical related debris**	388	1.20	0.01 ± 0.01	97	1.82	0.01 ± 0.01
6.	**Others**	1958	6.04	0.05 ± 0.05	197	3.70	0.03 ± 0.01
7.	**Packaging plastic waste**	16851	52.00	0.45 ± 0.12	2944	55.31	0.45 ± 0.03
8.	**Spare parts**	148	0.46	0.003 ± 0	33	0.62	0.005 ± 0
9.	**Textile related debris**	533	1.64	0.01 ± 0.01	54	1.01	0.01 ± 0.01
10.	**Tobacco related debris**	1768	5.46	0.05 ± 0.08	130	2.44	0.02 ± 0.01

Table S4: Variation of debris distribution: High Population Density Areas (HPDA) Vs. Low Population Density Areas (LPDA)

S.No.	Categories	HPDA_Debris_Count	Categories_HPDA (%)	HPDA_Mean ± Std.	LPDA_Debris_Count	Categories_LPDA(%)	LPDA_Mean ± Std.
1.	**Disposables**	650	4.55	0.33 ± 0.44	534	3.74	0.27 ± 0.37
2.	**Fishing related debris**	32	0.22	0.02 ± 0.02	28	0.20	0.01 ± 0.02
3.	**Fragments**	4033	28.24	2.02 ± 0.88	4504	31.54	2.25 ± 1.33
4.	**Hard Plastic**	226	1.58	0.11 ± 0.1	267	1.87	0.13 ± 0.14
5.	**Medical related debris**	156	1.09	0.08 ± 0.09	141	0.99	0.07 ± 0.07

6.	**Others**	1399	9.80	0.7 ± 0.84	743	5.20	0.37 ± 0.29
7.	**Packaging plastic waste**	7431	52.03	3.72 ± 1.48	6949	48.66	3.47 ± 1.69
8.	**Spare Parts**	95	0.67	0.05 ± 0.05	85	0.60	0.04 ± 0.06
9.	**Textile related debris**	232	1.62	0.12 ± 0.11	219	1.53	0.11 ± 0.08
10.	**Tobacco related debris**	26	0.18	0.01 ± 0.01	76	0.53	0.04 ± 0.07

Table S5: Seasonal Variation in debris distribution along the river: Pre-monsoon (PrM) vs. post-monsoon (PoM)

S.No.	Debris Category	Pre-Monsoon debris count	PrM Debris Categories (%)	PrM_Mean ± Std.	Post-Monsoon debris count	PoM Debris Categories (%)	PoM_Mean ± Std.
1.	**Disposables**	261	5.95	0.01 ± 0.02	339	6.14	0.02 ± 0.02
2.	**Fishing related debris**	516	11.76	0.03 ± 0.02	547	9.91	0.03 ± 0.03
3.	**Fragments**	144	3.28	0.01 ± 0.01	142	2.57	0.01 ± 0.01
4.	**Hard Plastic**	179	4.08	0.01 ± 0.01	227	4.11	0.01 ± 0.01
5.	**Medical related debris**	134	3.06	0.01 ± 0.02	54	0.98	0.002 ± 0
6.	**Others**	12	0.27	0.0006 ± 0	2	0.04	0.0001± 0
7.	**Packaging plastic waste**	2409	54.92	0.12 ± 0.1	3006	54.48	0.15 ± 0.09
8.	**Textile related debris**	69	1.57	0.003 ± 0	67	1.21	0.003 ± 0
9.	**Tobacco related debris**	662	15.09	0.03 ± 0.05	1134	20.55	0.06 ± 0.12

Table S6: Seasonal Variation after treatment in Debris densities and impact of floods: Pre-monsoon vs. Post-monsoon

S.No.	Categories	Pre_monsoon_Density	Pre-Monsoon_PostTreatment_Density	Post_monsoon_Density
1	Disposables	0.013	0.0078	0.017
2	Fishing related debris	0.03	0.0225	0.03
3	Fragments	0.007	0.0045	0.007
4	Hard Plastic	0.009	0.0053	0.011
5	Medical related debris	0.007	0.0018	0.003

6	Others	0.001	0.0002	0.0001
7	Packaging plastic waste	0.12	0.0819	0.15
8	Textile related debris	0.003	0.003	0.0034
9	Tobacco related debris	0.03	0.0158	0.057