**Supplementary material**

**Assessment of potential ecological risk of microplastics in the coastal sediments of India: a meta-analysis**

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After eliminate duplicates

(n= 2595)

Literature search using the keywords:

“Microplastic(s)”,

“Sediment”,

“India”,

“Plastic debris”,

“Marine debris”

MP data in sediments is obtained after deleting duplicates (n= 14)

Articles screened on basis of title and abstract (n=128)

Reject

Irrelevant literature (n=39)

Review literature (n=27)

Book chapter (n=11)

Screening the full text (n=51)

Reject

MPs in other matrices (n=15)

Inadequate data literature (n=22)

Figure S1. Literature search, selection process and results



Figure S2. The population of States and union Territories along the Indian coast (Data source: Government of India Census data 2011)



Figure S3. The shipping routes and marine traffic of different vessels in the northern Indian Ocean (Data: AIS)



Figure S4. Details of sampling, sieving, extraction, digestion and identification methods reviewed from the literature (MPs in sediments along the Indian coast)

**Table S1.** List of Indian Rivers and their discharges into the ocean (Data source: Kumar et al., 2005)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No** | **River** | **Mean discharge (m3/s)** | **Drainage area (km2)** | **Length (km)** | **Outflow** |
| 1 | Ganges-Brahmaputra-Meghna | 38129 | 1,635,000 | 2948 | Bay of Bengal |
| 2 | Indus | 6600 | 1,165,000 | 3200 | Arabian Sea |
| 3 | Tapti | 6371 | - | - | Arabian Sea |
| 4 | Godavari | 3505 | 312,812 | 1465 | Bay of Bengal |
| 5 | Krishna | 2213 | 258948 | 1400 | Bay of Bengal |
| 6 | Mahanadi | 2119 | 141600 | 858 | Bay of Bengal |
| 7 | Narmada | 1447 | 98796 | 1312 | Arabian Sea |
| 8 | Brahmi-Baitarani | 903 | 39033 | 480 | Bay of Bengal |
| 9 | Cauvery | 667 | 81155 | 765 | Bay of Bengal |
| 10 | Tapti | 489 | 65145 | 724 | Arabian Sea |
| 11 | Subarnarekha | 392 | 19300 | 470 | Bay of Bengal |
| 12 | Mahi | 383 | 34842 | 580 | Arabian Sea |
| 13 | Penner | 200.4 | 55213 | 597 | Bay of Bengal |

Reference

Kumar, R., Singh, R.D., Sharma, K.D., 2005. Water resources of India. Current Science, 89, 794 – 811.