Supporting Information

Export of plastic debris by rivers into the sea

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Contents Summary: 5 pages, 3 Figures, 1 Table and a spreadsheet file containing all data

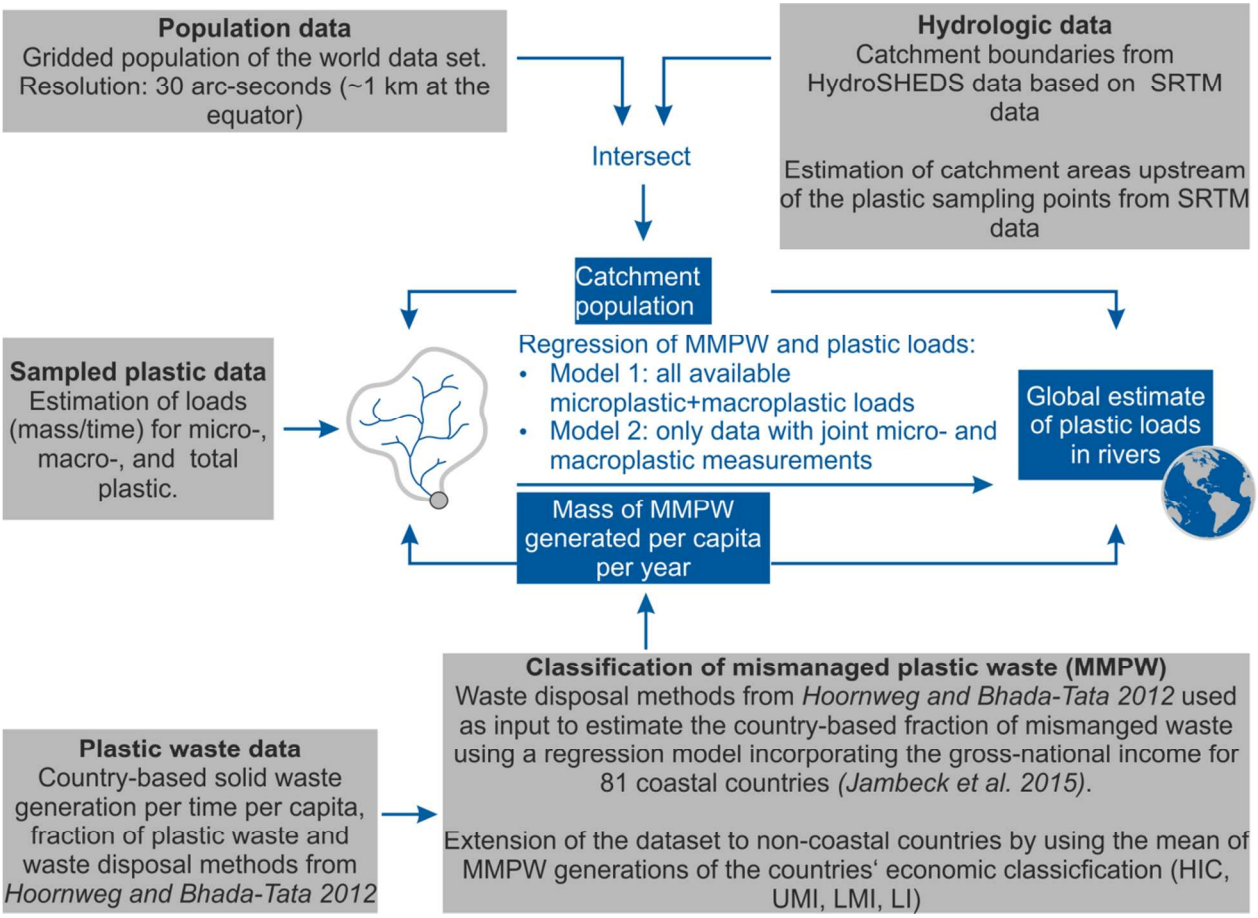

Figure S1: Methodological concept, data base and data flow of the analysis of plastic in rivers

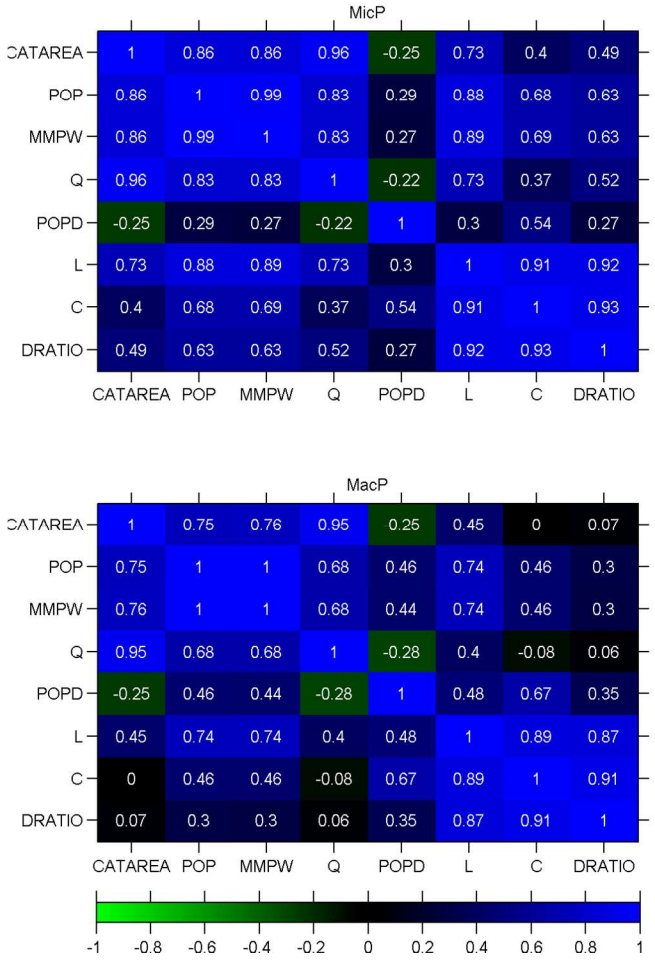

Figure S2: Matrix of Pearson correlation coefficients for microplastic (top panel) and macroplastic (lower panel) between catchment attributes and plastic concentration and loads. Variables: catchment area (CATAREA), total population in the catchment (POP), the Mismanaged plastic waste generation in the catchment (MMPW), mean river discharge (Q), population density (POPD), observed plastic load (L), plastic mass concentration (C), plastic delivery ratio (DRATIO)

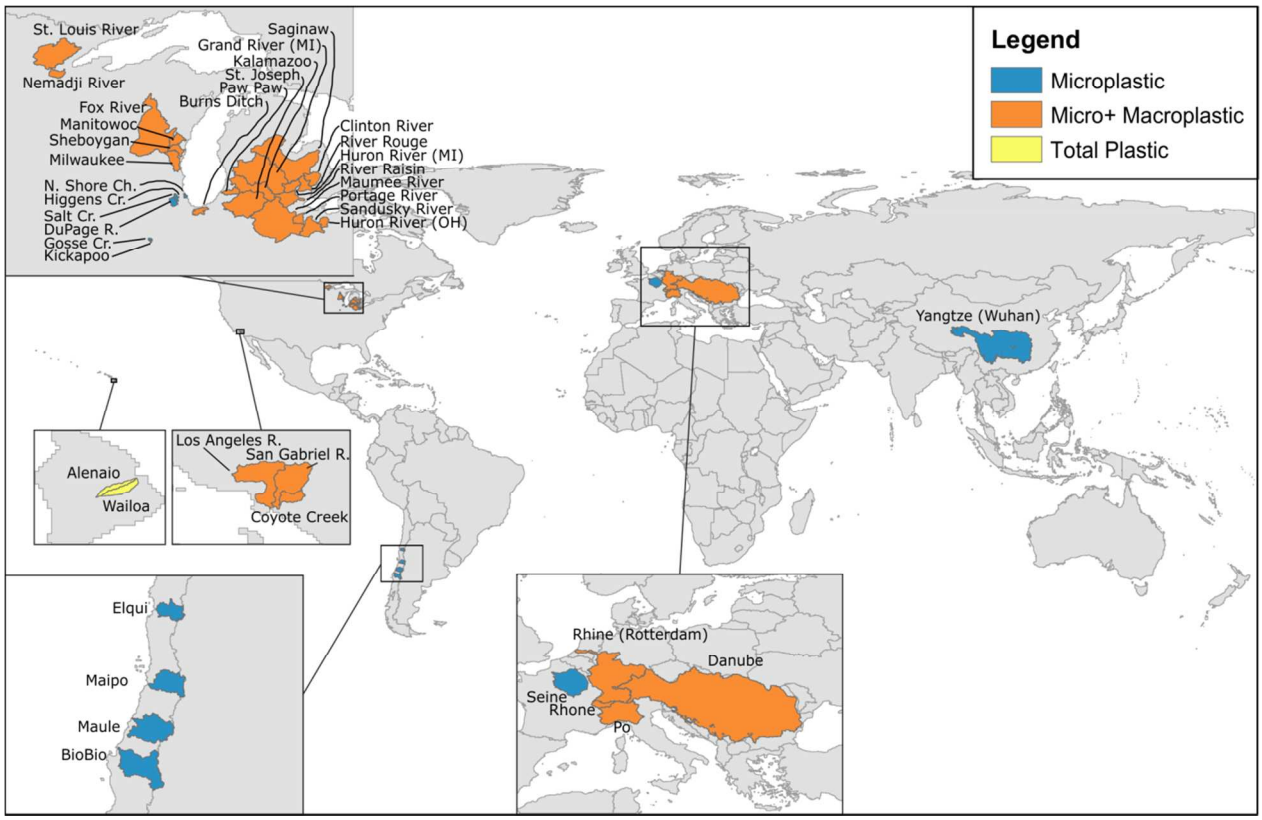

Figure S3: Map of the catchments comprising the underlying data set. In catchments with nested sampling points (e.g. Rhine, Mani et al. 2015[16]) only the largest catchment is display. In the Danube also a data set with Total plastics (Lechner et al. 2014[12]) was available. (World map source: https://services.arcgisonline.com/ArcGIS/rest/services/Canvas/World_Light_Gray_Base/MapServer)

Table S1: MMPW and plastic loads for the top-ten ranked catchments sorted by MMPW

River	*Receiving Sea*	*Continent*	*Catchment Area [km²]*	*MMPW Generation per capita [kg d^{-1}]*	*Population*	*Population density [per km²]*	*MMPW generated in the catchment [tons y^{-1}]*	*Microp. load Model 1 [tons y^{-1}]*	*Microp. load Model 2 [tons y^{-1}]*	*Macrop. load [tons y^{-1}]*
Chang Jiang (Yangtze River)	*East China Sea (Yellow Sea)*	*Asia*	*1907295*	*0.092*	*503258473*	*264*	*16883704*	*1469481*	*85440*	*69282*
Indus	*Arabian Sea*	*Asia*	*854106*	*0.069*	*191277131*	*224*	*4809288*	*164332*	*12378*	*11977*
Huang He (Yellow River)	*Yellow Sea*	*Asia*	*761437*	*0.092*	*122167489*	*160*	*4098569*	*124249*	*9678*	*9561*
Hai He	*Yellow Sea*	*Asia*	*211489*	*0.092*	*102782394*	*486*	*3448223*	*91858*	*7434*	*7515*
Nile	*Mediterranean*	*Africa*	*2851708*	*0.049*	*182955620*	*64*	*3293385*	*84792*	*6919*	*7043*
Meghna, Bramaputra, Ganges	*Bay of Bengal*	*Asia*	*1571571*	*0.013*	*620596218*	*395*	*3017170*	*72845*	*6039*	*6230*
Zhujiang (Pearl River)	*South China Sea*	*Asia*	*388705*	*0.092*	*74999426*	*193*	*2515374*	*52958*	*4577*	*4823*
Amur	*Sea of Okhotsk*	*Asia*	*2004785*	*0.089*	*64344272*	*32*	*2086763*	*38267*	*3429*	*3708*
Niger	*Gulf of Guinea*	*Africa*	*2090967*	*0.059*	*92689954*	*44*	*1989695*	*35196*	*3185*	*3469*
Mekong	*South China Sea*	*Asia*	*771941*	*0.086*	*61740094*	*80*	*1931483*	*33431*	*3044*	*3330*