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## Over 1000 rivers accountable for 80% of global riverine plastic emissions into the ocean

**Lourens Meijer**, Tim van Emmerik, Ruud van der Ent, Laurent Lebreton, and Christian Schmidt  
The Ocean Cleanup, Rivers, Netherlands (ljmeijer@gmail.com)

Plastic waste increasingly accumulates in the marine environment, but data on the distribution and quantification of riverine sources, required for development of effective mitigation, are limited. Our new model approach includes geographical distributed data on plastic waste, landuse, wind, precipitation and rivers and calculates the probability for plastic waste to reach a river and subsequently the ocean. This probabilistic approach highlights regions which are likely to emit plastic into the ocean. We calibrated our model using recent field observations and show that emissions are distributed over up to two orders of magnitude more rivers than previously thought. We estimate that over 1,000 rivers are accountable for 80% of global annual emissions which range between 0.8 – 2.7 million metric tons per year, with small urban rivers amongst the most polluting. This high-resolution data allows for focused development of mitigation strategies and technologies to reduce riverine plastic emissions.