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## Marine Litter in Indonesia – Tracking macro-plastic from river mouths with Argos buoys and modelling

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The Indonesian archipelago is rated globally the second contributor to marine plastic litter pollution. This has driven the government in recent years to step up its efforts to combat plastic pollution, on land, in rivers and in the ocean. Indeed, although most of the plastic is disposed on land, lack of a systematic collection and processing network means that it often ends up rivers and ultimately into the seas. Heavy precipitation events during the Monsoon season exacerbate the problem by transporting massive amounts of plastic into rivers and hence into the coastal seas. Amongst the more recent initiative to combat the plastic litter issue, and with funding from the World Bank, the government of Indonesia has set up a program to track the movement of plastic through a hybrid observation & model approach and to determine the location of accumulation areas if any. The project deployed and tracked number of 20 Argos drifters over a year and set up a series of drift model simulation. As the project focuses on macro plastic, several types of macro-waste drifts have been modeled depending on their buoyancy by varying wind coefficient. Three river mouths were studied, located downstream from major populated areas. Results show that the dispersion and trajectory of particles vary depending on the source river, time of the year and meteoceanic conditions. For each river, accumulation areas were identified, concentrating 38% to 90% of particles and all located on shore.