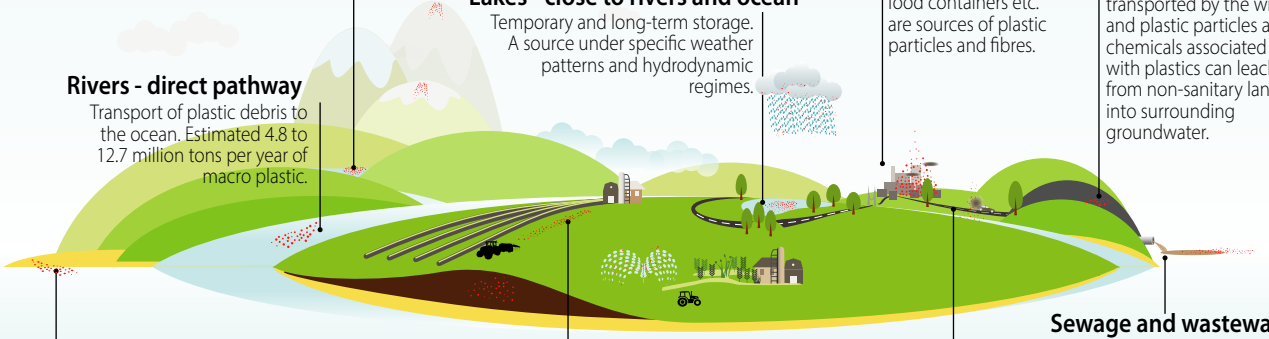
Major sources and pathways of human generated plastic waste in the marine environment

Pathways, sources, sinks and temporary accumulation

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Reservoirs - source and sink

Plastics from atmospheric fallout, streams and rivers. Temporary and long-term storage and possible infiltration into groundwater.

Snow and ice - pathway

Microplastics are found in snow, ice and sea-ice, from the poles to remote mountain tops.

Cities - source

Clothes, synthetic products such as carpets, building materials, take-away food containers etc. are sources of plastic particles and fibres.

Landfill - major source

Exposed plastics can be transported by the wind and plastic particles and chemicals associated with plastics can leach from non-sanitary landfill into surrounding groundwater.

Lakes - close to rivers and ocean

Temporary and long-term storage. A source under specific weather patterns and hydrodynamic regimes.

Rivers - direct pathway

Transport of plastic debris to the ocean. Estimated 4.8 to 12.7 million tons per year of macro plastic.

Sediments - source and sink

Plastics coming from both the land and sea contribute to accumulation in sediments.

Agriculture soil - source and sink

Use of plastic films and large fibre textiles in farming practises. Sewage sludge with plastic residue used as fertilizer. Irrigation with plastic contaminated water. Artificial fertilizer and seeds coated with a polymer.

Roads and traffic - source

Particles from the wear on tyres, road surfaces and paint.

Sewage and wastewater - source and pathway

Wastewater treatment plants are a major source of microplastics and nanoplastics in water bodies.

United Nations Environment Programme (2021). From Pollution to Solution: A global assessment of marine litter and plastic pollution. Nairobi.

Illustrated by GRID-Arendal