

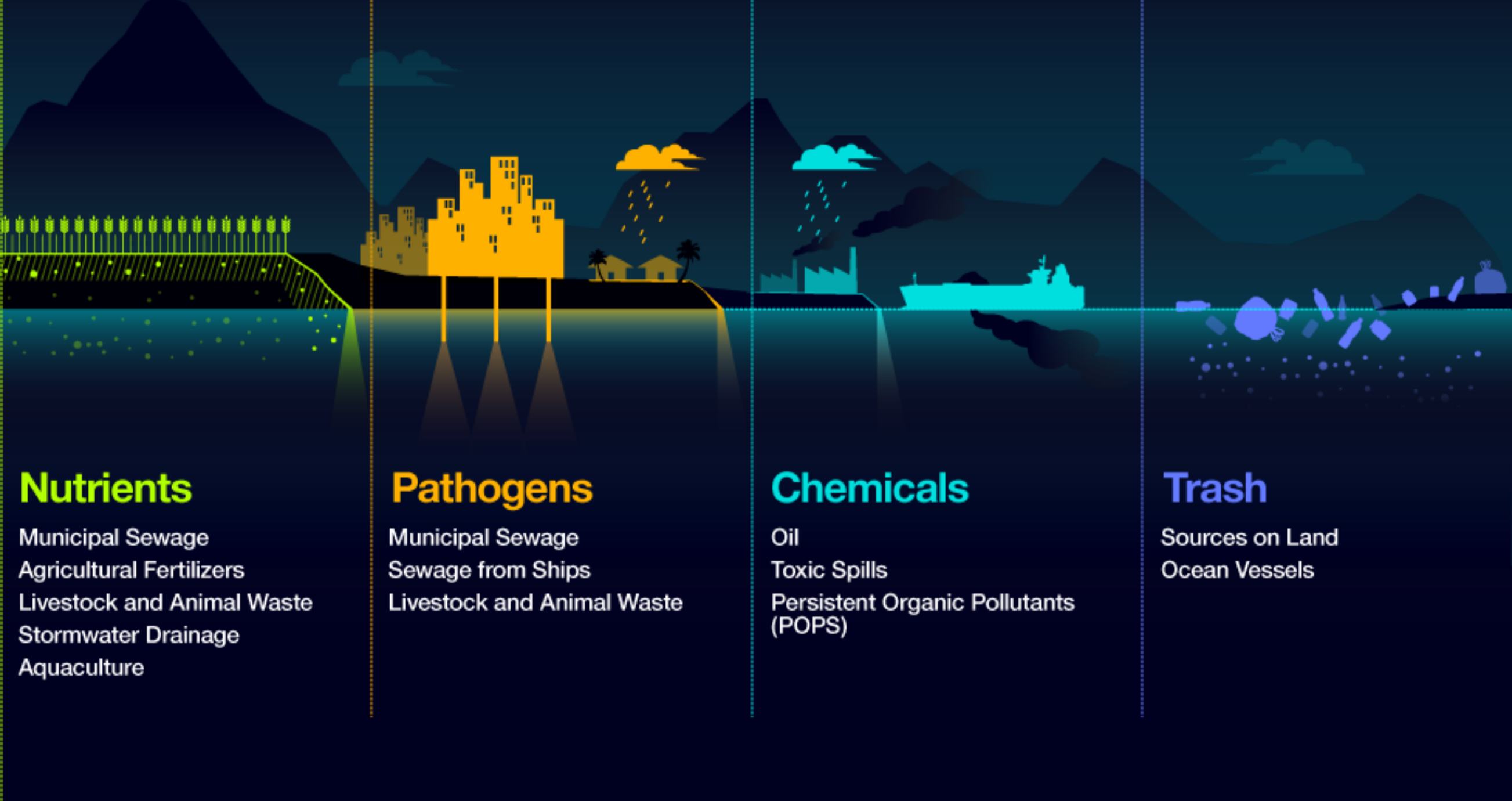
What Are the Impacts of Polluted Marine Waters?

Contamination of waters from oil, chemicals, eutrophication, pathogens and trash can come from various sources and can have a significant impact upon the health of both human and marine populations.

Pollutants can be introduced to the environment in a number of ways, where they often accumulate and persist. This can affect habitats, food webs, and species diversity and may lead to changes in overall ecosystem structure and function.

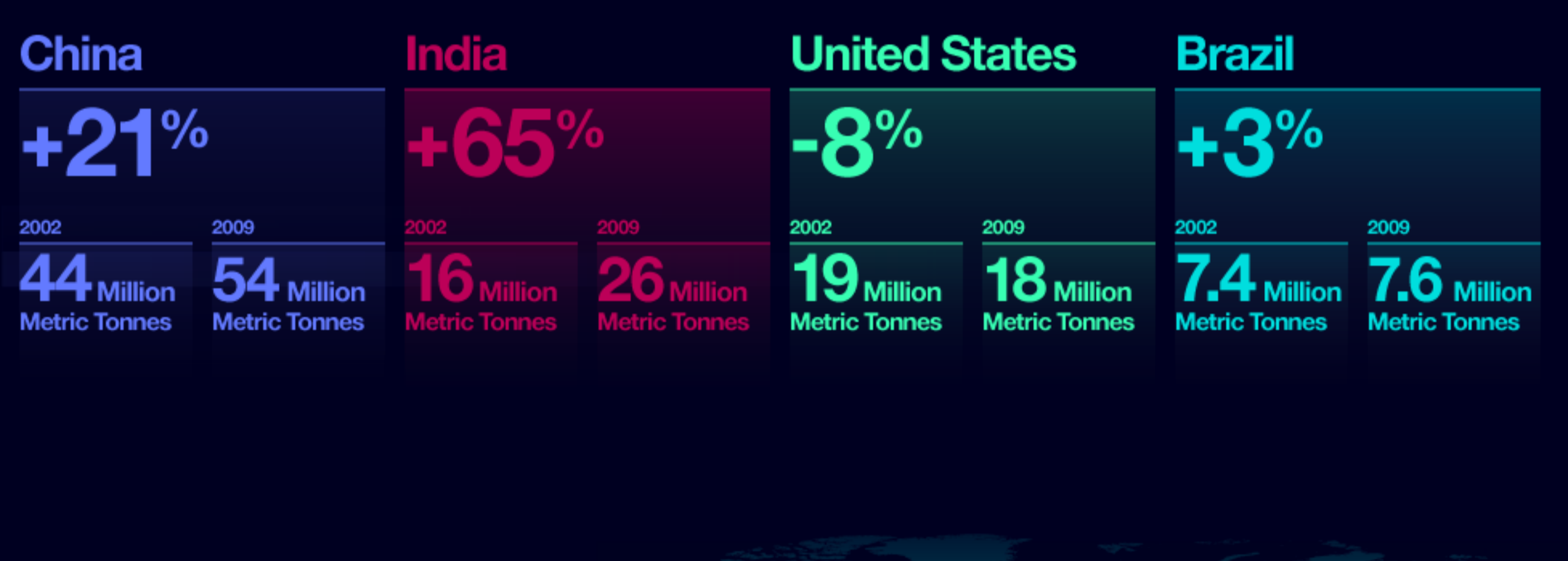
For example, agricultural fertilizers containing nitrogen and phosphorus can seep into groundwater or be washed away as runoff, resulting in the spread of dead zones in coastal waters.

Sources of Pollution



Global Use of Commercial Fertilizers Has Been Increasing in Recent Decades

Commercial fertilizers are responsible for improved agricultural yields necessary to feed growing populations.



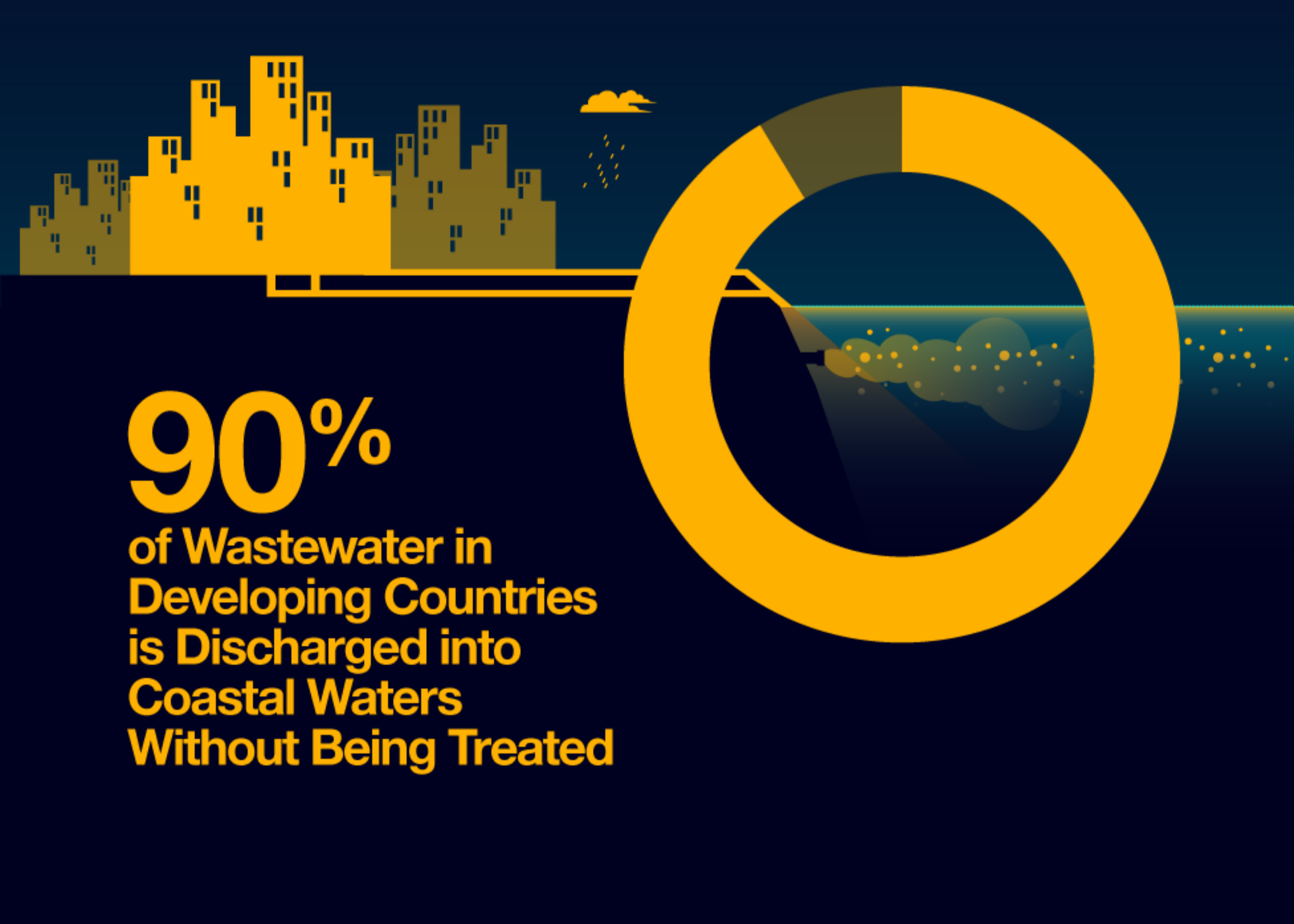
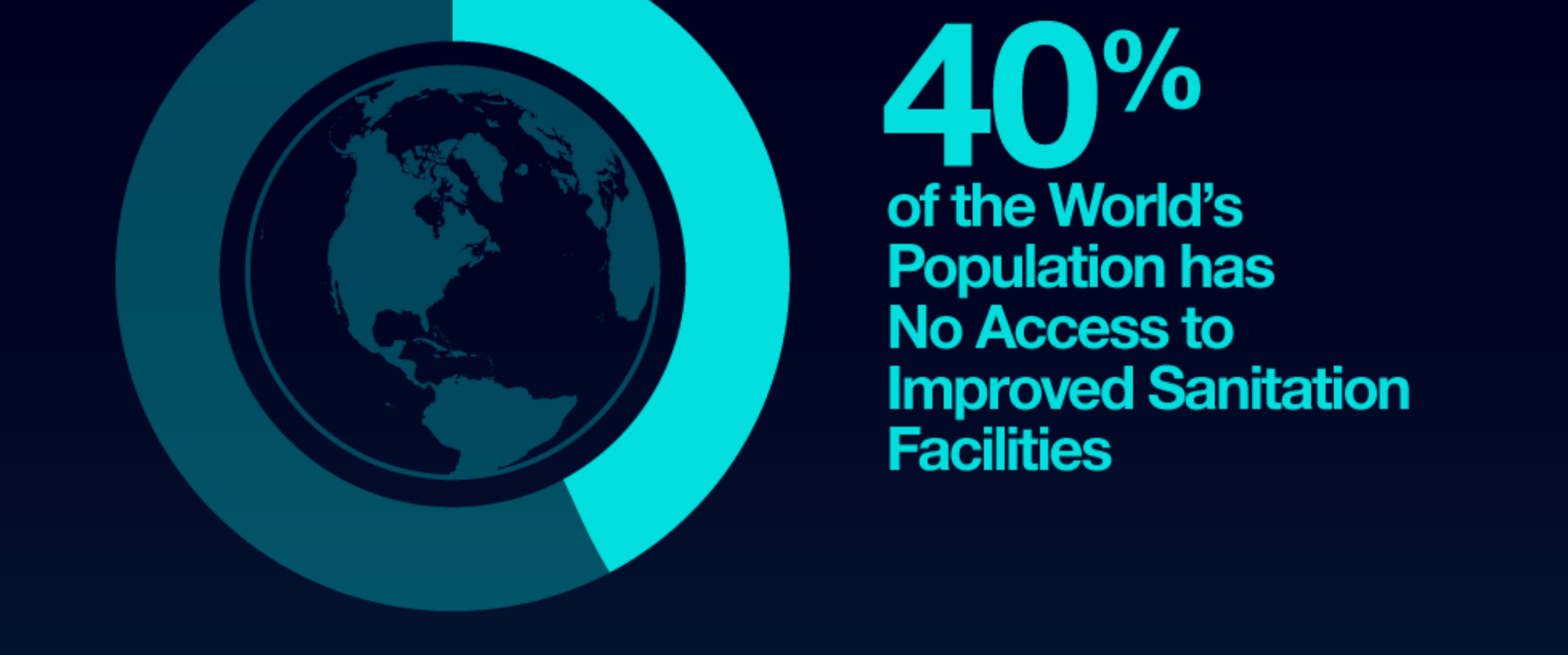
Agricultural Activities Are a Primary Source of Nutrient Pollution in Waterways



38% of Global Land is Cultivated for Agricultural Purposes

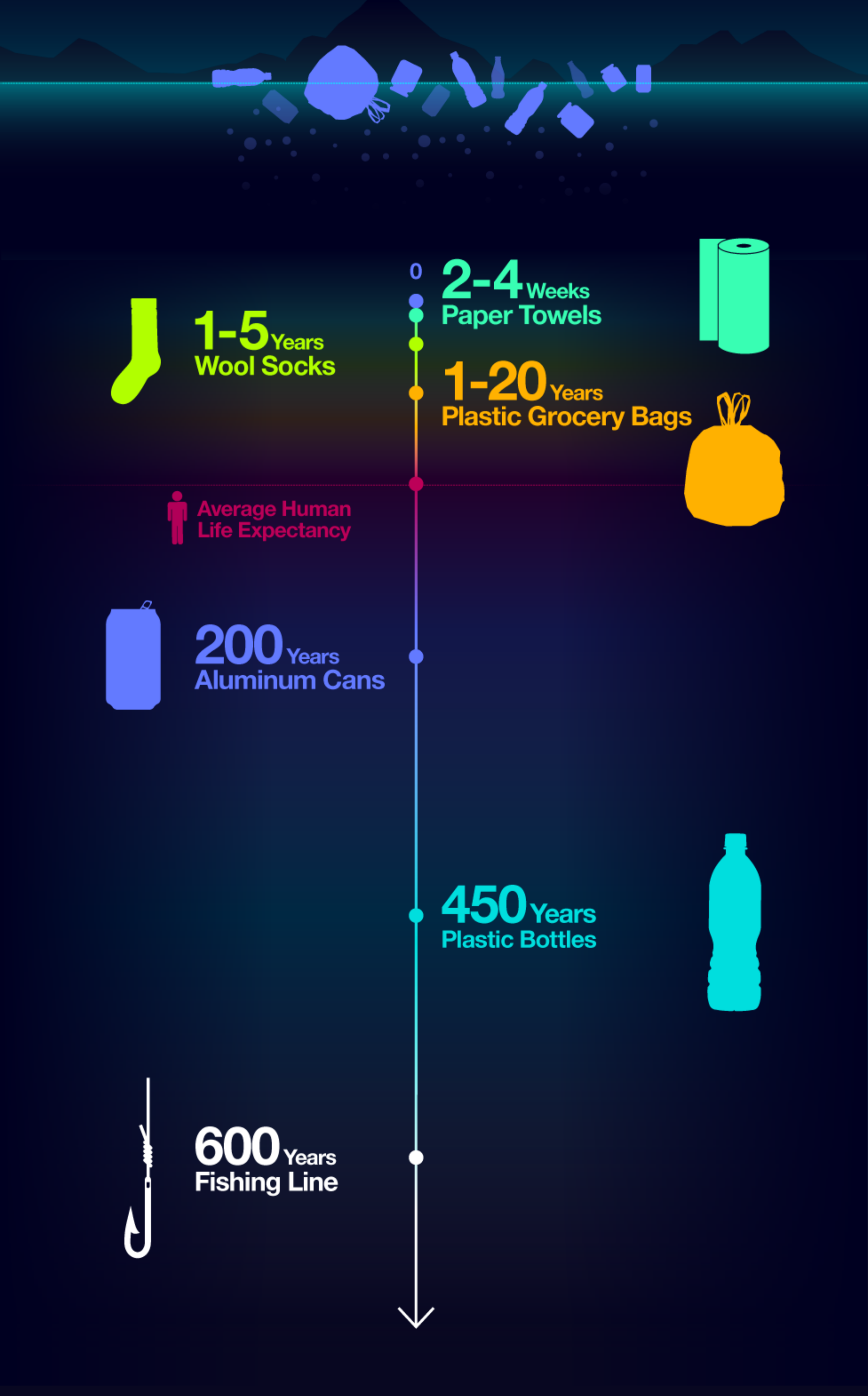
Pathogen Pollution Affects Native Populations and Species

Poor sanitation and inadequate sewage treatment can introduce bacteria, viruses, and parasites into water systems and coastal waters, resulting in disease and infection.



Estimated Decomposition Rates of Marine Debris

Marine debris is defined by NOAA as any man-made object discarded, disposed of, or abandoned that enters the coastal or marine environment.



SOURCES: Creel, 2003; FAO, 2009; IGBP - International Geospheric-Biospheric Programme, Land Cover Map; R.J. Diaz, R. Rosenberg, Spreading Dead Zones and Consequences for Marine Ecosystems, Science 15, 321 (2008); World Bank