

Section V: Environmental Factors of Water Pollution

Section summary

The broad extent, variety, and ramifications of environmental factors are covered in many chapters throughout the book and particularly in Section V.

[Remediation of the environmental Impacts of the Akosombo and Kpong Dams in Ghana](#)

This case study presents a classic example of anthropogenic changes bring about rapid alterations to ecosystems, in this case, the range of particular infectious diseases in Ghana before and after the creation of the Volta Lake. Onchocerciasis was prevalent among river communities prior to the dam construction. After the river was dammed to form Volta Lake, the incidence of river blindness decreased, but the incidence of urinary schistosomiasis, increased dramatically. The study includes successful initiatives to reduce the incidence of schistosomiasis. The study by Julius Fobil, PhD was peer reviewed by the late Professor Andy Spielman of Harvard School of Public Health, posted on the Horizon Solutions Site at: www.solutions-site.org.

This study is referenced in Chapter 24, Part 1. [Click here for the case study on the Horizon Solutions Site](#)

[Actions Combating Drug Resistance](#)

“The emergence of AMR [antimicrobial resistance] is a complex problem driven by many interconnected factors; single, isolated interventions have little impact. A global and national multi-sectoral response is urgently needed to combat the growing threat of AMR.” (WHO)

[Scientists Discover New Trigger for Immense North Atlantic Plankton Bloom](#)

The newly discovered mechanism triggering the blooming of countless microscopic plant plankton, or phytoplankton, in the North Atlantic helps explain the timing of the spring and summer bloom, known to mariners and fishers for centuries and clearly visible in satellite images.

[Badwater Basin: Death Valley Microbe Thrives There: Discovery may lead to novel biotech and nanotech uses](#)

Scientists Dennis Bazylinski and colleagues at the University of Nevada Las Vegas (UNLV) sluice through every water body they can find in Nevada looking for new forms of microbial magnetism.

[U.S. Environmental Protection Agency Issues First National Standards for Mercury Pollution from Power Plants](#)

Historic 'mercury and air toxics standards' meet 20-year old requirement to cut dangerous smokestack emissions: The U.S. Environmental Protection Agency (EPA) has issued the Mercury and Air Toxics Standards, the first national standards to protect American families from power plant emissions of mercury and toxic air pollution like arsenic, acid gas, nickel, selenium, and cyanide. The standards will slash emissions of these dangerous pollutants by relying on widely available, proven pollution controls that are already in use at more than half of the nation's coal-fired power plants.

[U. S. Environmental Protection Agency to Provide Nearly \\$2 Million to Revitalize U.S. Urban Waters](#)

The U.S. Environmental Protection Agency (EPA) on 7 December 2011 announced it will provide up to \$1.8 million for projects across the country to protect Americans' health and help restore urban waters by improving water quality and supporting community revitalization. The funding is part of EPA's Urban Waters program, which supports communities in their efforts to access, improve and benefit from their urban waters and the surrounding land. Urban waters are canals, rivers, lakes, wetlands, aquifers, estuaries, bays and oceans.

[Lifecycle of Water in the Susquehanna River Basin May Reveal Answers for Drought Prone Areas](#)

Water is a precious resource many take for granted until there is too little or too much. Scientists and engineers have positioned instruments at the Susquehanna Shale Hills Observatory at Pennsylvania State University to learn much more about the water cycle there. It is one of six Critical Zone Observatories in the United States.

[Somalia: MSF Fighting Against Cholera, Measles, and Malnutrition](#)

[Doctors Without Borders/Médecins Sans Frontières](#) (MSF) is currently battling outbreaks of cholera and measles in and around the town of Marere in southern Somalia.

[Study of Deer Mice on California's Channel Islands Provides New Information on Hantavirus](#)

Precipitation and predators key in ecological regulation of infectious disease: Researchers show that just three ecological factors--rainfall, predator diversity and island size and shape--can account for nearly all the differences in infection rates between the eight Channel Islands off the southern coast of California.