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EDITORIAL

Editorial

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According to the IPCC 5th Report in 2014, unprecedented impacts of climate changes such as sea level rise and reduction of glacier have been monitored and the average global temperature has increased by 0.85 °C over the past 133 years. Among the various environmental problems caused by climate change, the most urgent task is to solve the water shortage problem caused by severe natural disaster and desertification. This report also highlighted that coastal residents in many countries are directly exposed to tropical cyclone, hurricanes, changes in ecology and sea level rise. Sea level rise and reduced rainfall due to climate change will reduce river flow, the recharge rate of freshwater reservoirs and eventually prolong the impact of drought. International demands on this agenda have made it necessary to share the environmental collaborating studies including health, safety and remediation technologies for underdeveloped countries. However, most underdeveloped and developing countries still lack the infrastructure for these issues due to economic situation. And also environmental experts are also insufficient, making it difficult to implement and manage environmental solutions even if these exist. In particular reference to water security, the increase in temperature can increase the activity and reproduction rate of viruses, bacteria and the number and distribution of pathogenic microorganisms and eventually increase the incidence of waterborne diseases. Therefore, applicable researches for water security should be developed, which makes it possible to provide local population with the safe water in low cost and easy maintenance.

In this issue, we tried to cover various aspects of environmental geochemistry in the rock–soil–water–plant–human health system which became more severe and hard to handle from the impact of climate changes. Also several other studies of PM_{10}, radionuclides, cytotoxicity, geomicrobiology and hydrochemistry in many countries are included, and we guest editors hope that this special issue can contribute to the field of environmental geochemistry and health from these case studies in the era of climate change.

Guest editors at Special Issue: Health, Safety and Environment in the Era of Climate Change.

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