

# Biogeochemical cycles

Business



Introduction The earth comprises of a closed system.

Thus, apart from a small quantity of cosmic debris that penetrates the Earth's atmosphere, all the elements required for the structure and chemical development of life emanate from elements that were present in the Earth's crust some millions of years ago. The building blocks of life, repetitively cycle all the way through Earth's systems, the biosphere, atmosphere, lithosphere hydrosphere, on time scales that vary from a few days to millions of years. The cycles are referred to as biogeochemical cycles, since they include a variety of geological, biological, and chemical development. Several elements rotate through the ecosystems such as air, soil, and organisms. Some of these are trace elements. Other elements include oxygen nitrogen, sulphur, hydrogen which is critical elements of all biological life.

The weight of human beings comprises 80% of carbon and oxygen. And since the elements are key aspects of life, they must be accessible for biological processes. Carbon, is relatively rare in the Earth's crust, while nitrogen is abundant but not in a usable form by living organisms. The biogeochemical cycle's transfers and store essential elements so they can be used by living organisms. Every cycle takes different pathways and possess various reservoirs or storage spaces where the elements can reside for a long period of time.

The rates of cycling vary where other molecules may cycle quickly. During a gaseous stage allows molecules to be carried quickly. Phosphorous does not exist in gaseous phase . it is also unreactive, and moves slowly throughout its cycle. It is stored in large quantities in sediment in the Earth's crust and

comes back to the surface after a long period of time through weathering of rocks and upwelling of ocean waters. Jacobson, notes that a biogeochemical cycle is subject of disturbance by human activities that destroy biogeochemical cycles when elements are gotten from their reservoirs and brought back into the environment.

Carbon foot print is an example. It is defined as carbon emissions caused by a product, person, organization or an event to the air. Carbon foot print originates from human activity i. e. fuel burned and used to produce goods that are far away from the consumer. Rees & Wackernagel developed the concept of carbon footprint after an ecological footprint forum.

Carbon foot print is composed of behaviors, lifestyle influence and choices that influence the amount of Carbon dioxide released to the airs which affect climate change.