

## Environmental safety assessment of nanomaterials

**Wubshet Belay**

University of Bologna, Italy

Environmental safety assessment of nanomaterials is very important research area because nowadays nanotechnology is an emerging field and nanomaterials are widely used in many applications, so knowing the interactions of nanomaterials with the environment and organisms is an important research area. Currently there are concerns about the environmental and health effects of nanomaterials, it is important to understand how they reach to the environment, what happens to them, how they may interact with organisms and potentially be taken up through the food chain.

Nanotechnology is of substantial interest by scientists and developed enthusiastically in the fields of nanocomposites, biocomposites, optical, biomedical, electronic manufacturing and polymer based composite materials in the aircraft and wind industries. Nanotechnology also used to increase the strengths of many materials and devices and to enhance the efficiencies of monitoring devices, remediation of environmental pollution, and renewable energy production. Though these are considered to be the positive effect of nanotechnology, there are certain negative impacts of nanomaterials on the environment and health in many ways, such as increased Ecotoxicological impact on the environment due to the uncertain shape, size, and chemical compositions of some of the nanomaterials. In this literature review the potential environmental and health risk of nanomaterials are extensively analyzed and its Ecotoxicological impacts and the potential for bioaccumulation in microorganisms, its accumulation in plants is extensively assessed.