

International Conference on Biodiversity & Sustainable Energy Development

September 14-15, 2012 Hyderabad International Convention Centre, India

Study of hyperaccumulators of copper, cadmium & arsenic from soil and water from Bakar valley region of southern Assam

Sunayana Goswami
Assam University, India

Heavy metals pollution of soils and waters are of serious concern due to their persistence in the environment. Arsenic, cadmium and copper are toxic heavy metals and pose a great potential threat to the environment and human health. Great efforts have been made in the last two decades to reduce pollution sources and remedy the polluted soil and water resources. Phytoremediation, being more cost-effective and fewer side effects than physical and chemical approaches, has gained increasing popularity in both academic and practical circles. Phytoremediation of Cu, Cd and As from contaminated site is a lucrative and emerging concept which is not only cost effective but also ecofriendly. It is based on the fact that certain plants, during the process of nutrient uptake, remove pollutants from the environment. Hyperaccumulators accumulate excessive amounts of one or more metals in their above ground biomass. Such species can hyperaccumulate pollutants in their root, shoot and leaves. Several plant species both terrestrial and aquatic of Barak valley region of South Assam possess substantial hyperaccumulating power that can be used for Cu, Cd and As phytoremediation from soil and water. Present study thus explores phytoremediation potential of such plants based on established literature survey and field survey (regular visits to contaminated sites).

Biography

Sunayana Goswami is a research scholar from department of Life science and bioinformatics. She has done her Master degree in life science from department of Life science and bioinformatics in 2010. Sunayana Goswami is pursuing her research under the guidance of Dr. Suchismita Das (Assistant professor) from department of Life science and Bioinformatics. She is provisionally registered research scholar in the same department and her research area is phytoremediation of heavy metals.