

**DEPARTMENT OF BIOTECHNOLOGY**  
**MINISTRY OF SCIENCE AND TECHNOLOGY**  
**Block-2, CGO Complex, Lodhi Road, New Delhi 110 003**

**CALL FOR CONCEPT PAPER FOR NANOTECHNOLOGY  
APPLICATION IN AGRICULTURE**

Nanotechnology is the study, design, synthesis, development, manipulation of materials and devices at nanoscale (1 nm =  $10^{-9}$  meter) either to improve or to create new functions. It is one of the enabling technologies having the potential to revolutionize agriculture also. Developed countries lay emphasis on the development and use of nanosensors to detect chemical contaminants and pathogenic microbes; nanomembranes for slow and controlled release of fertilizers and pesticide; antimicrobial emulsions to decontaminate food-processing equipments. Titanium dioxide and magnetic nanoparticles in fact decompose organic pollutants and remove salts and heavy metals enabling the use of treated polluted water for irrigation.

Department of Biotechnology would like to start a programme for use of nanoparticles in agriculture and invites concept papers for undertaking R&D projects on nanotechnology application in agriculture. The three-four page concept papers should define the scientific hypothesis, plan of work and time frame to test the hypothesis, scope of scaling up of production by industries and identify the practicability and economic feasibility of use in field. The concept paper including their brief biodata stating their experience and expertise in the area, may be submitted by post and also by email (rrsinha.dbt@nic.in, rrsinhadb@gmail.com) to Dr R. R. Sinha, Adviser, Department of Biotechnology, Block 2, 6th Floor, CGO Complex, Lodi Road, New Delhi 110 003) within six weeks of this advertisement.