



DEPARTMENT OF BIOTECHNOLOGY
Ministry of Science and Technology
Government of India

CALL FOR CONCEPT PAPERS ON BIOTECHNOLOGICAL INTERVENTIONS FOR DEVELOPMENT OF CROPS ADAPTED TO CLIMATIC CHANGES

Effects of greenhouse gases and climatic changes are already evident from the rising climatic temperature, declining precipitation, recurrent droughts, erratic rains, flooding, submergence, etc. Carbon containing gases like carbon dioxide, methane etc. are added continuously into the atmosphere which tend to hold heat in atmosphere raising the temperature and bring other climatic changes. Such changes may impact crop productivity and overall agriculture production.

Biotechnology can play an important role in mitigating these effects on crops through developing suitable crops adapted to these changes. Research efforts in this regard may be pursued on various aspects – like cloning and deployment of suitable genes or application of molecular markers for developing crops which can withstand high temperature and radiation effects; transformation of C3 into C4 plants to achieve higher photosynthetic efficiency, low photorespiration and get higher productivity at enhanced level of atmospheric carbon dioxide; developing crops with better water and nitrogen use efficiency which may lead to reduced emissions of green house gases; or tolerant to droughts and submergence, etc.

The Department of Biotechnology invites concept papers for research projects for funding on basic as well as applied aspects pertaining to the above subject from the scientists working within the country in agricultural research institutions, universities, or private sector research centres recognized by the Department of Scientific and Industrial Research. The concept papers may be submitted either for individual research projects, or joint projects for pursuing in collaboration with other suitable public or private research institutions. The concept papers (4–5 pages each) should cover brief objectives, plan of work, expected outcomes and approximate time frame. **Ten copies of the concepts along with brief bio-data of the Principal Investigator(s) may be submitted latest by 10 March 2008 to Dr V. P. Gupta, Adviser, Department of Biotechnology, Block-2, 6th Floor, CGO Complex, Lodhi Road, New Delhi 110 003, and also as an attachment e-mail it at ypgupta@dbt.nic.in.** The concept papers having scientific merits will be short-listed by a screening committee for discussion and developing detailed research proposals.