Vision of the Department

Marching towards excellence ……

Our aim

- To create state-of-art infrastructures for Plant Biology.
- Establishing a center of academic excellence in Plant Biology.
- Generating world class talents in Plant Biology.

Excellence in teaching

Apart from excellent research, outstanding teaching environment will also be created by:

- Rigorous teaching by faculty and invited eminent plant biologists of other places.
- Regularly updating and revising the course curricula tuned with recent trends and development.
- Introducing experiment-based feasible programmes.

Priorities

- Revision of syllabus
- Option of exit and lateral entry

Students through lateral entry

- may either be admitted through entrance examination
- or may be offered audit courses to remove the academic deficiency
- *Lateral entry may help in admitting the bright students to fullest strength at PG level.*

To motivate the bright students for the admission in B. Sc. & M. Sc. -

- Orientation (e.g., INSPIRE or any suitable event) programmes will be organized
- Leaflets will be prepared

- *highlighting the importance of courses*
- *infrastructure available in the department/school/university*
- *strength of faculty members*
- *future prospect of the courses*

Step-wise planning

- To attract funding for creating infrastructure through DST- FIST, SAP types of programmes.
- Attracting individual grants from various funding agencies.
- Establishing major thrust areas in Plant Biology Research depending on the expertise of faculty.

Major Thrust Areas

Currently, we propose to establish following broad thrust areas:

- **Stress Biology of Plants**
- **Environmental Biology and Management**
- **Ecology, Biodiversity and Ethno-botany**

- Under these broad thrust areas, excellent research environment will be created.
- In order to improve the skills and other advancements, international and national collaborations will be developed.
- National/International level symposium will be organized for the exchange of ideas.

Rationale for thrust areas

- Relevance to the regional and national level
- Current trend and Global relevance
- Research interest of faculty

Biodiversity and Conservation

- Mapping of floristic diversity of Chhattisgarh and adjacent area (central India)
- To study the floristic diversity at different levels (e.g. species, ecosystem, genetic)
- Molecular mapping (population genetics, phylogeny, DNA Barcoding) of important flora of central India
- Prevailing anthropogenic disturbances and impact on biodiversity

Environmental pollution and Global change

- Study on pollutants in air, water, and soil components
- Implications of these pollutants on flora & fauna, human health and global change
- Bio-monitoring and phytoremediation
- Restoration of degraded ecosystems and long-term environmental management

Stress Biology of Plants

- Various mechanisms of stress resistance of plants and other phototrophs will be investigated.
- Different physical e. g. heat, temperature, flooding, etc. and chemical e. g. nutrient deficiency, heavy metals, salinity will be used as environmental stress.
- Outcome of the study will provide valuable information for the development of suitable crops for their sustainable production.

Department will also take initiative to establish:

- Establishment of a Biodiversity Park
- Bioinformatics center
- Biotech Hub
- Central Instrument Facility
- Centre for biodiversity and climate studies