~~Publish~~ Preserve or perish

Genebanks play an essential role in conserving and making available plant genetic diversity for research and breeding. However, modern genebanks are much more than just collections of seeds stored at low temperatures. They provide access to diverse genetic resources, specialized infrastructure, and expertise in support of research in plant genetics, genomics, physiology, and crop improvement. The National Center for Plant Genetic Resources (NCPGR) at the Plant Breeding and Acclimatization Institute—National Research Institute (IHAR-PIB) combines long-term conservation with scientific research. Our studies focus on topics such as plant responses to drought and the molecular processes associated with seed aging and longevity. We investigate how plants respond to environmental stress and why some seeds maintain their viability longer than others by integrating physiological experiments with transcriptomic, small RNA, and other molecular analyses.

Research projects and breeding programs also generate valuable genetic resources, including experimental lines, mapping populations, and unique genotypes. Developing and characterizing these materials often takes years, yet their future is uncertain once a project ends. Without proper storage and documentation, valuable materials and opportunities for further research may be lost. NCPGR offers ways to preserve these resources by incorporating them into permanent genebank collections or through long-term deposit arrangements with agreed-upon conditions of access and use.

Connecting genebank collections with ongoing research and safeguarding newly developed materials can open up opportunities for collaboration and future discoveries. After all, a research project may have an end date, but a valuable genotype should not have an expiration date.