

Urban arboreta as catalysts for community engagement and conservation of plant heritage: A case study of the 700-year-old ‘Ara Red Lotus’ collaborative exhibition

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Located in Sejong City, the administrative capital of South Korea, the Sejong National Arboretum, affiliated with the Korea Arboreta and Gardens Institute, is celebrated as the first national arboretum nestled within an urban setting, with over 4300 taxa of living plants. Its mission is to elevate public happiness by advocating for a sustainable gardening culture. Moreover, it aims to serve as a vital link between nature and the public, pursuing the vision of expanding diverse community engagement. As an urban green sanctuary, it plays an essential role in identifying and preserving historically significant plant resources, in collaboration with local communities, and is actively involved in projects that resonate with the rich heritage of Korean garden culture. A noteworthy initiative in community engagement is the ‘Ara Red Lotus’ project, which brought to light the miraculous germination of lotus (*Nelumbo nucifera*) seeds aged over 700 years discovered in Haman County, South Gyeongsang Province. This project significantly amplified the historical and cultural prestige of the region. To facilitate this, the Sejong National Arboretum and Haman County forged a Memorandum of Understanding, enriching the visitor experience through the collaborative planning of the Ara Red Lotus exhibition. This initiative extended to community engagement in a lotus photography contest, the development of an educational curriculum related to the lotus, and the operation of cultural tourism and interpretation programs. Achieving an impressive 97.4% visitor satisfaction rate, the project not only underscored the biological wonder of the Ara Red Lotus, which had remained dormant for centuries, but also maximized the synergistic impact of promoting traditional garden culture, education, and community participation. Also, this pioneering effort exemplifies the pivotal role that urban arboreta play in motivating community engagement for the conservation of vital plant resources and in fostering a deeper appreciation for the intrinsic value of biodiversity.