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Seeds of the future: Youth participation, community seed banks and agrobiodiversity in Cumbal, Colombia

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Abstract

Community seed banks and youth engagement are emerging as critical strategies for strengthening agrobiodiversity, food security, and cultural identity in Indigenous territories. In the resguardo (reserve) of Cumbal (Nariño, Colombia), community seed banking efforts in which youth play an important role intersect with local knowledge systems, indigenous identity, and gender dynamics, under increasing environmental and socio-economic pressures. This study examines the role of youth participation in recently established community seed banks in Cumbal in sustaining agrobiodiversity and facilitating intergenerational knowledge transmission. The research draws on a qualitative methodology combining Gender Equality and Social Norms Assessment (GEN-SoNA) workshops, semi-structured interviews with community members and institutional actors, ethnographic field visits, and literature review.

Findings highlight that community seed banks, particularly those established within local educational institutions, play a central role in conserving native seed diversity, enhancing food security and sovereignty, strengthening their indigenous cultural identity and promoting resilience in agricultural systems. These seed banks operate through collective mechanisms of seed exchange and restitution, strengthening social cohesion and local governance around plant genetic resources. Youth participation is a key component of these initiatives: students actively engage in seed collection, conservation, and planting activities, transforming seed banks into spaces of experiential learning and community research. Additionally, intergenerational collaboration – through interactions with traditional elders (taitas and mamas) – facilitates the transmission of traditional ecological knowledge, reinforcing cultural identity and agroecological practices.

However, the study also identifies important challenges. Despite these initiatives, youth engagement in biodiversity conservation remains uneven, with many young people migrating for education and employment opportunities and not returning to the territory (reserve). Limited institutional support, lack of resources such as thematic teaching materials, and insufficient integration of youth in local decision-making processes further constrain the scalability and sustainability of these efforts.

The study concludes that community seed banks, when linked to youth participation and educational processes, represent powerful platforms for advancing agrobiodiversity conservation and social inclusion. Strengthening these initiatives requires sustained institutional support, investment in youth-oriented programs, and the integration of local knowledge into formal education systems. Such efforts are essential for fostering resilient, inclusive, and culturally grounded agri-food systems in Indigenous territories.

Keywords: Biodiversity conservation, community seed banks, youth