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A Business Model for Community-Based Vegetable Seed Production in Bangladesh

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Abstract

Agriculture remains the backbone of Bangladesh's economy, with the vegetable sector critical for food and nutritional security. However, challenges like poor access to quality seeds, import dependency, and weak market linkages constrain productivity and farmer incomes. This paper presents a sustainable business model for community-based vegetable seed production, developed through a partnership between the Bangladesh Agricultural Research Institute (BARI), Sara Bangla Krishok Society (SBKS), and Dutch Bangla Bank PLC. The model engages smallholder farmers in quality seed production through a cooperative framework, thereby creating a comprehensive value chain that spans from cultivation to marketing. Implemented through the project "Community-Based Sustainable Vegetable Production," it involved 137 farmers cultivating 31 BARI-released varieties across 20.50 hectares, producing 16,923.7 kg of seeds with productivity reaching 927.78 kg/ha. The business model incorporates key components: (1) farmer capacity building through training and exchange visits, (2) quality assurance via BARI's technical supervision of seed processing and certification, and (3) financial support by Dutch Bangla Bank PLC and (4) market access through SBKS's network of 115 producer organizations serving 8,000+ farmers. Post-production activities—seed extraction, drying, quality testing (germination, purity, vigor), packaging, labeling, and storage—were rigorously supervised by BARI breeders. The SBKS cooperative network facilitated market linkages, distributing seeds to member farmers and institutional buyers like ActionAid Bangladesh and Udayankur Seba Sanstha (USS). This vertically integrated approach demonstrates strong commercial viability, with seeds marketed both to cooperative members and institutional buyers like ActionAid Bangladesh. The model reduces import dependence by 30-40% while increasing farmer incomes by 25-35%. Its scalability is evidenced by expansion across climate-vulnerable Barind and coastal regions. The business model offers a sustainable solution to Bangladesh's seed security challenges, combining farmer empowerment with market-oriented production. Policy support for scaling this model could transform Bangladesh's vegetable seed sector while contributing to SDGs 1, 2, and 8.

Keywords: *Agricultural business model, seed production, cooperative farming, value chain development, sustainable agriculture, Bangladesh.*

