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A Situational Audit on the Agricultural Seed Systems: A Case Study in Imbulpe Divisional Secretariat Division, Sri Lanka

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Abstract

A seed system is a network of processes, organisations, and market dynamics contributing to the development, production, dissemination, and regulation of seeds. It is the foundational component for agricultural productivity and biodiversity, influencing crop yields, farmer resilience, and the adaptability of agriculture to changing environmental conditions. Seed systems can be structured and regulated (formal), community and farmer-based (informal), or a combination of these two. This paper explores the components of seed systems in the Imbulpe area of the Ratnapura district, exploring how they interact at local and regional levels to move seeds from breeders to farmers and the impact on agricultural practices. Seeds serve as custodians of preserving genetic diversity and a determinant of future agriculture. However, there are significant challenges that threaten the efficacy and sustainability of seed systems. Our research objectives were to identify the nature of the existing seed system in the Imbulpe area, understand the governance and controls in place, and explore the gaps and opportunities to improve the existing seed system to help preserve genetic diversity. Data was collected through questionnaires facilitated via interviews and focus group discussions with a target of fifty farmers, as well as consultations with local agrarian services institutions in the area. The questions covered existing seed systems and modifications done to improve or correct these systems. The formal seed system in the Imbulpe area involved agrarian services and key seed merchants, such as Hayleys and CIC. Informal seed systems were primarily used by subsistence farmers and those growing vegetables and fruits alongside large paddy fields where seed saving, exchanging, and selling among farmers defined systems used. Formal seed systems offered several qualities in seed which are helpful to farmers in terms of productivity, consistency, and reliability. High germination rates, genetic purity and uniformity, disease and pest resistance, and adaptability and resilience were found to enhance productivity for farmers. These were backed by soft services such as quality assurance and certification of seeds, access to new seed varieties, as well as technical support and guidance where appropriate. It is recommended that additional research work be done to determine the level of governance necessary to support the informal seed system in place, by allowing the seed quality to be assessed before distribution. Local farmers should be helped to devise their own voluntary protocols to ensure that their seeds are disease free and viable by using seed quarantines and test germinations. In conclusion, we found a healthy informal seed system within the Imbulpe area that could be improved with awareness through extension programs.

Keywords: Seed systems, Value chain analysis, Agricultural development, Food security, Resilience