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“Reconcile land system changes
with planetary health”

Market power in the seed sector: challenges to innovation, diversity, and food security

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Abstract

Purpose: This study investigates the rising concentration in the global and domestic seed industry, analysing its implications for agricultural innovation, genetic diversity, food security, and farmers' autonomy. It also offers policy recommendations to mitigate the adverse effects of such market concentration. **Findings:** Over the past two decades, the seed sector has witnessed an unprecedented wave of mergers and acquisitions, resulting in a few multinational corporations controlling a significant share of the market. This concentration has led to several challenges: seed prices have risen disproportionately, access to diverse and locally adapted varieties has declined, and intellectual property regimes have restricted farmers' traditional practices such as seed saving and exchange. Moreover, the narrowing of genetic diversity undermines the resilience of farming systems in the face of climate change and pests, while reduced competition stifles innovation. The study highlights empirical evidence that these trends could have long-term negative impacts on productivity and the overall sustainability of food systems. It emphasises the urgent need for regulatory reform, particularly in competition and patent policies. **Directions for Future Research:** Future studies should conduct longitudinal analyses of how market concentration affects innovation trajectories and food security outcomes in different agroecological and economic contexts. Comparative studies on policy effectiveness and the role of farmer cooperatives or seed networks in resisting monopolistic trends are also recommended. **Conclusion:** To safeguard food security and ensure sustainable agricultural development, policymakers must prioritise fair competition, improve access to innovation, revise intellectual property laws, and support farmer-led initiatives. **Keywords:** Competition, Concentration, Food Security, Productivity, Seed.

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