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How to create conducive institutions to enable agricultural mechanization: A comparative historical study from the United States and Germany


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How to create conducive institutions to enable agricultural mechanization: A comparative historical study from the United States and Germany

Abstract

Agricultural mechanization is now high on the policy agenda of many developing countries. History has shown that successful mechanization depends on an enabling environment providing various supporting functions, for example, knowledge and skills development and quality assurance. This paper analyses how this enabling environment was created during the mechanization history of two today's mechanized countries, the United States and Germany, thereby distilling lessons for today's mechanizing countries. The paper highlights the different roles played by government agencies (public sector), manufacturers of agricultural machinery (private sector) and farmers' organizations (third sector) for the creation of this enabling environment. The study finds that both the United States and Germany witnessed the emergence of an institutional support landscape for mechanization. Yet, while mechanization benefitted from this support landscape in both countries, the organizations that created this support landscape differed largely. In Germany, the authors found more evidence of orchestrated public sector support and support from third-sector-actors to promote mechanization. In the United States, private actors played a larger role. For today's mechanizing countries, the findings suggest that public, private and third sector can all contribute to create a conducive environment for mechanization. The results indicate that the appropriate role of public, private and third sector depends on the strengths of each of these sectors and the strength of the driving forces for mechanization. While the study suggests that the enabling environment can be created by different actors, the study also shows that dedication will be key as mechanization is unlikely to unfold without certain key functions being fulfilled.

Keywords

Agricultural Mechanization, Knowledge and Skills Development, New Institutional Economics, Africa, United States, Germany

Disciplines

Agricultural and Resource Economics | Demography, Population, and Ecology | Economic Theory | International Economics | Labor Economics | Regional Economics

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