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What has Path Dependence got to do with Smallholder Farmers’ Decision to Adopt Agricultural Technologies? Lessons from Côte d’Ivoire

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Abstract

The literature on farmers’ choice of agricultural technologies is populated by studies that have focused almost exclusively on analysing contemporary observable variables but, little attention is paid to understanding the historical context and policy antecedents that may have influence farmers’ technological choices. This paper identifies path dependence as a historic phenomenon that exerts important influence on the contemporary adoption decisions on agricultural technologies by smallholder farmers. This paper begins with a discussion on path dependence and its relevance in shaping farmers’ choice of farm technological options. Using a case study of the cotton sector of Côte d’Ivoire, it then examines how various policy and institutional interventions have created structural changes that have led to the emergence of dominant farming enterprise and exerting notable influence on farmers’ choice of farm technologies in contemporary times. It emphasis how historical and external interventions have led to the emergence and contemporary dominance of chemical pesticides in crop protection technology at the expense of environmentally sound and stable technologies in the cotton sub-sector of the country. In the paper, we particularly highlight how farmers’ choice of production technologies and the dominant farming system that emerged over time are determined not by geography and soil characteristics alone, but also by historical interventions and policies. It is recommended that efforts to promote sustainable natural resource management among farming communities should recognise and analyse any path dependent patterns that exist in the targeted communities with a view to understand farmers’ responses to different agricultural technologies. The study concludes that agricultural policy interventions should be assessed not only in terms of their short time effects on farm production but, also their potential long term effects (intended and non-intended) on biological and other natural resources.

Keywords: Cotton, natural resource management, pesticides, sustainable agriculture, West Africa