

Systems of innovation theory and the changing architecture of agricultural research in Africa

James Sumberg *

The School of Development Studies, University of East Anglia, Norwich NR4 7TJ, UK

Abstract

This paper examines the on-going evolution of the organisational architecture of agricultural research in Africa. Once considered a rural backwater populated by agronomists, extension agents and farmers, agricultural research is now being explicitly placed within global debates about innovation, technology, institutions and development. This is reflected in a growing interest in the use of systems of innovation theory to both understand and reform innovation processes within agriculture. The basic argument put forward in the paper is that the conception of a global agricultural research system, and associated efforts to create a coordinated, multi-layered, supra-national research infrastructure, are at odds with both the realities of research at national level, and the bio-physical and socio-economic heterogeneity that characterises rural Africa. It is suggested that a less directive approach to support for agricultural research is required to allow national characteristics and differences to come to the fore, and to give more room for the development of the all important demand-side.

© 2004 Elsevier Ltd. All rights reserved.

Keywords: Sub-Saharan Africa; Research Policy; NARS; Integration; Collaboration

* Tel.: +44 1603 592 325; fax: +44 1603 451 999.

E-mail address: j.sumberg@uea.ac.uk.

Introduction

Over much of the last two decades agricultural research in sub-Saharan Africa (hereafter, Africa) has experienced a serious credibility problem. Its priorities and methods have been widely critiqued, and the relevance of its outputs repeatedly questioned. There can be little wonder that funding for agricultural research in Africa has also declined, while there have been numerous attempts to reform, down-size, merge and in some cases actually dismantle, publicly funded research institutions. The international donors, led by The World Bank, have played the central role in setting-out the intellectual foundations for, designing and funding these reform programmes (e.g., [Byerlee, 1998](#); [Byerlee and Alex, 1998](#)).

One factor associated with the declining fortunes of agricultural research in Africa was the general push during the 1980s and 1990s to reduce the size and reform the role of the state. Thus, within the context of structural adjustment programmes, research staff was cut, independent research centres were consolidated and re-engineered into national research organisations and institutes, new management structures were developed and a greater degree of managerial independence granted. Research institutes were also pushed to broaden their funding base through the introduction of competitive grants, fee-for-service mechanisms, alliances with the private sector and the like.

The motivation to reform agricultural research was also fuelled by a more specific critique. According to this account, research had run itself aground on the Green Revolution model of technology development and transfer (e.g., [Chambers, 1989](#)). Thus, agricultural research in Africa had generally yielded few benefits for poor people because it was elitist and out-of-touch with rural realities; focused on better endowed areas as opposed to the marginal areas (where poor people were assumed to live); discipline or commodity as opposed to system- or livelihood-oriented; too often interested only in productivity to the detriment of sustainability; “reductionist” as opposed to “holistic”; and top-down or supply driven, not participatory or demand-driven. While each of these assertions has been contested, the combined weight of this critique proved difficult to parry. After all, if agricultural research was effective in meeting the needs of the rural population, how could one explain the condition of rural Africa, characterised by low productivity, increasing levels of poverty, declining per capita food production and so on?

Pushed by government, the international donors and groups speaking for farmers, research made genuine attempts to respond to many elements of this critique. Consultation, participation and the notion of a “client-driven” research agenda are now well ensconced in the rhetoric (and to a degree the practice) of agricultural research throughout Africa. Poverty reduction has replaced increased productivity in the mission statements of many research institutions and, wisely or not, as the ultimate indicator of research impact.

Download English Version:

<https://daneshyari.com/en/article/9551528>

Download Persian Version:

<https://daneshyari.com/article/9551528>

[Daneshyari.com](https://daneshyari.com)