



**UNIVERSITY OF
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Governance of pesticides in Zambia

A master thesis under the faculty of agricultural science

by

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Abstract

Schwarze, Louis Philipp. 2022. “Selling pesticides like biscuits” – Governance of the pesticide revolution in Zambia. Master thesis at the University of Hohenheim. Stuttgart (Germany)

Pesticide use is rising rapidly in many Sub-Saharan countries, due to the availability of cheap and effective generic products, a trend coined as “pesticide revolution”. Yet, pesticides are highly contested because in absence of appropriate regulatory frameworks serious human health and environmental trade-offs may arise. Drawing on a conceptual framework based on concepts of New Institutional Economics, the paper explores challenges affecting private, public, and third-sector governance across the pesticide life cycle, ranging from legislation, registration, importation, retail, use, disposal, to food markets. The analysis is based on empirical data from 76 qualitative interviews with experts, representing key stakeholders of pesticide governance such as agrodealers, importers, regulatory agencies, ministries, NGOs, universities and extension services. 13 interviews with key informants were complemented through creation of participatory stakeholder maps. Expert interviews provided data for the analysis of governance challenges along the pesticide life cycle. Additionally, 18 focus group discussions and participatory impact diagrams were conducted with 159 farmers about pesticide impacts and challenges at farm level. The results reveal that farmers overwhelmingly appreciate the benefits of pesticides, but governance challenges were found on all stages of the pesticide life cycle. Information asymmetry incentivizes the private sector to sell sub-standard products and conceal risks. A lax legislation combined with weak enforcement, training and monitoring systems due to state failures and high transaction costs create an institutional vacuum in which, due to imperfect information and externalities, farmers deploy hazardous pesticides indiscriminately, with negative effects for human and environmental health. The civil society largely lacks awareness and capacities to keep the private and public sector accountable. Unaddressed governance failures may not only deteriorate the net-benefit of pesticides, rendering them demerit goods, but also undermine acceptance of agricultural intensification in general. The paper concludes with policy recommendations such as decentralization, regional harmonization, formalized training schemes and hybrid governance so to harness the potentials while mitigating the human health and environmental hazards of pesticides confronted by Zambia as well as other countries experiencing a “pesticide revolution”.