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“Agricultural development within the rural-urban continuum”

## Crop-Livestock Research and Development - The Potential for Spillovers

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### Abstract

Crop livestock systems in developing countries play a major role in the livelihoods of millions of people through the provision of food, income, draught power and employment. These systems produce about half the world's food from both livestock and crop foods. Around 70 % of the world's population live in such mixed systems and a significant portion of their income is generated from diverse livestock-related activities through value chains of farmers, traders, market agents, processors, retailers and consumers.

Crop livestock systems have benefited from increasing research and development support during the past 30 years. However, research on crops has mainly been targeted at the food (grain) component with less attention given to the feed component. Furthermore, livestock scientists have not tended to work closely with crop scientists. During the past 10 years, however, integrated crop livestock research and development projects have made notable progress in improving the productivity and profitability of selected crop livestock systems, providing opportunities for using the knowledge and technologies more widely through spillovers.

Spillovers from agricultural research and development investments have been shown to account for more than half of agricultural productivity growth globally although this is largely unappreciated. Most studies of spillovers have been retrospective analyses of their value and impact, often many years after the knowledge, technology and/or methodology was developed. Identifying, selecting and promoting potential spillovers of best-bet knowledge and technologies in crop livestock systems could more rapidly enhance their productivity and contributions to food security and poverty reduction.

Selected examples of both successful spillovers and potential spillovers of knowledge and technologies in crop livestock systems in sub-Saharan Africa and Asia will be discussed, in the context of strengthening value chains, including food-feed crops, dairy and poultry systems, and fodder markets.

**Keywords:** Crop livestock systems, spillovers, value chains