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“Filling gaps and removing traps  
for sustainable resource management”

## Challenges, Opportunities and Strategies to Increase the Contribution of Urban Livestock Production to Sustainable Resource Management

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### Abstract

The purpose of this contribution is to outline the challenges, opportunities and strategies related to the sustainability of livestock development in urban production systems in developing countries. Sustainability is thereby especially discussed in the context of the management of animal genetic and feed resources. Population growth and urbanisation have led to an increasing demand for animal-sourced food in developing countries. This resulted in an expansion of livestock production in and around urban centres in the last few decades. Notwithstanding the higher associated knowledge and financial needs, an intensification of urban livestock production systems has been successfully encouraged in South and Southeast Asia, mainly for monogastric animals, but also for sheep and cattle. The importation of exotic livestock breeds and concentrate feeds enhanced production outputs in many Asian countries, and the market share of the intensive commercial livestock sector has been steadily increasing. However, continuously rising costs of livestock feed call the long-term sustainability of these intensive landless livestock production systems into question. In addition, the concentration of livestock production in Asia raises concerns of environmental pollution. In sub-Saharan Africa (SSA), on the other hand, many countries have difficulties to meet the increasing demands for food, and the overall increase in animal productivity has been minimal. The lower adaptability of imported breeding stock and indiscriminant crossbreeding often do not allow animals to express their full genetic potential. Restricted availability of sufficient livestock feeds of adequate quality and possibilities to provide external feed inputs further limit the required intensification of livestock production in SSA. The major challenge for livestock development in developing countries is therefore to increase the production outputs without having much additional natural resources to utilise, while ensuring that environmental resources (land, water and air) and animal genetic diversity are sustained. Solutions are needed that utilise the potential of existing animal genetic and locally available feed resources to sustainably develop urban livestock production in developing countries.

**Keywords:** Animal genetic resources, livestock feed resources, sustainable livestock development, urban livestock production