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Development of a Livestock Production Performance Database for Policy Planning and Evaluation in South and Southeast Asia

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Abstract

Quantitative livestock modelling can provide a means of ex ante assessment of the effect of interventions. FAO has developed the Livestock Development Planning System Version 2 (LDPS2), which can be used globally for livestock policy planning and evaluation. However, its wider application has been constrained by the scarcity of input data, i.e. livestock production performance values. Therefore, FAO initiated the development of the Livestock Production Performance Database (LPPD) for the compilation, classification and aggregation of relevant data extracted from the literature.

The LPPD can store parameters for 8 livestock species. Further variables contain information on geographic location and production system. Database output includes selected aggregates of individual parameters and output tables for data transfer to LDPS2. In the application described here, the compilation of data from the literature, comprising regular publications and grey literature, has focused on 9 countries in South and Southeast Asia. The database standards severely restrict the literature suitable for entry. However, aggregates of data conforming to the standards can be directly used for modelling with LDPS2.

The systematic compilation of data enables the identification of geographic areas, production systems and parameters, for which little information is available so far. The amount of information from Southeast Asia is far less than from South Asia. Generally, management related data (e.g. life cycle periods such as 'time in breeder herd' and mortality rates) are reported less often than milk yields or live weights. For poultry, differentiation of information by level of commercialisation is pivotal. Data availability determines possible levels of disaggregation. Currently, parameters are aggregated at the sub-regional level with a simplified production system classification. Alternatively, only parameters and systems with a sufficient number of parameter values are compared. For countries where sufficient information is available, LDPS2 results based on LPPD data correspond well to values reported in databases such as FAO-STAT or GLiPHA, validating LPPD information. The identification of more literature will improve the utility of the database and making the database accessible via the internet is expected to increase the number of users.

Keywords: Herd modelling, livestock, performance parameter database

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