Open questions on poultry genetic diversity

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Introduction

The biological and economic specificities of poultry such as high reproductive rate and fast reproduction cycle, low unit costs, easy portability and transportation of breeding material, and the related economies of scale in research have made it the most advanced livestock sector in several aspects. Poultry breeding has become the most concentrated of all animal species. Poultry has the best feed conversion ratio of all livestock species and provides an increasing share of affordable meat to consumers in developed and developing countries. The sector is expected to grow at 2.5 percent per annum to 2030 with 3.4 percent per annum in developing countries (FAO, 2006). On the other hand, fast structural change has been identified as one threat to poultry genetic resources, with 30% of avian breeds being at risk and 9% extinct. Besides biodiversity loss, consumer concerns regarding animal welfare and environment are an issue. Therefore, the poultry sector is an ideal case to analyze the various trade-offs that national policies need to consider in their decision making: food security vs. agrobiodiversity, public vs. private investment, large scale vs. small scale farming, formal vs. informal sector, job creation vs. self-employment, standards and food safety vs. food diversity. Not all aspects are covered in the paper which focuses on poultry genetic diversity and breeding, the related public and private investments in research and food security.