

# Scale and Access Issues Affecting Smallholder Hog Producers in an Expanding Peri-Urban Market

## Southern Luzon, Philippines

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**A**mong all sectors in the Philippine agricultural economy, livestock exhibited the fastest and most consistent growth in the past decade and a half (4.6 percent average per year), steadily increasing its share of contribution to gross value added in agriculture from 18 percent in 1990 to 24 percent in 2003. The expansion of the industry has been propelled mainly by growth in domestic demand for meat in general and for pork in particular, fueled by a still-rapid population growth, increased urbanization, and modest improvements in per capita income, particularly in the national capital and in major urban centers in the provinces around the metropolitan Manila area.

Pig production is the largest contributor to meat output in the Philippines. It is also an economic activity where smallholders still dominate, accounting for close to 80 percent of total pig inventories. The strong growth in demand for pork has the potential to increase income opportunities and alleviate poverty among rural and agricultural households in the Philippines, where rural poverty remains high at 40.3 percent.

However, trends in the two major hog-producing regions of Southern and Central Luzon adjacent to the nation's capital depict a rapid decline in the share of smallholder pig producers in regional output, such that, as of 2003, smallholders held the minority share. In these two regions, the total number of farms raising pigs declined between 1990 and 2003. Between 1997 and 2004, however, the number of registered commercial pig farms significantly increased. This suggests a scaling up of larger farms and a displacement of smaller ones.

The more rapid growth in larger commercial farms is due not only to economies of scale in production, but

also to the ability of commercial farms to escape, or at least overcome, transaction costs that cannot be handled as easily by small producers. The cost advantage of large farms over small farms may also be due to their ability to more easily access privileged prices for crucial inputs as a result of better access to policy subsidies.

On the demand side of the meat industry, consuming households in the metropolis and in the major urbanizing centers in the two regions, with their higher incomes and purchasing power, are not only increasing their consumption of meat but are also increasing their demand for meat quality, for convenience, and for greater product differentiation. On the supply side, large meat product companies are vertically integrating pig production operations; exercising control over their own breeding farms, feed formulation, and animal health services; and establishing Hazard Analysis and Critical Control Point (HACCP)-compatible slaughtering and processing plants. They are also producing differentiated meat cuts and meat products, packaging them in convenient forms, and establishing their own brands. In the regulatory scene, the government's National Meat Inspection Service is strengthening monitoring, inspection, and grading functions on the sanitary conditions of all slaughterhouses, public and private, for local, national, and international trade in meat. These changing market forces, compounded by structural factors and the policy environment, pose a serious challenge to the continued survival of smallholder pig producers.

The poverty implications of the displacement of smallholders in the market raise important social questions. This report attempts to respond to these questions by investigating empirical evidence on the issues of scale and

access that affect smallholders. It seeks to examine the market forces, structural factors, and policies that affect the relative profit efficiency of small and large farms; to explain why some farms are more profit-efficient than others; and to use this information to see whether there is scope for remedying any bias of incentives against smallholders.

Field data were collected in 2000–2001 from a sample of 144 pig-producing households and 141 households not producing livestock, randomly picked from identified pig-producing villages. The study examines how well the sample of smallholders was able to compete against larger specialized hog farms, defining competitiveness as the capacity to maintain or improve market position. The study employs a direct approach method, using a market-participation model to assess the role of household characteristics and factors outside the household in determining participation in pig-production activity and the level of market participation. It also uses an indirect approach, using a relative unit profit efficiency model to assess the combination of technical and allocative efficiency exhibited by specific farms with specific fixed resources and technology that face a specific set of input and output prices.

The study concludes that the smallest-scale pig producers will not survive market competition much longer, by virtue of their relative profit inefficiency and their very low profit performance relative to the rest. Furthermore, their very small scale of operations will not allow them to continue to make a living from this activity. Exit for this group may be gradual but is likely to be inevitable. Public policy in this case might be focused on alternative schemes for poverty alleviation with this group.

However, even at minimal levels of annual output consistent with production of pigs from at least two sows, many smallholders manage to perform at comparable levels of relative profit efficiency with larger producers. Nevertheless, they face relatively high transaction cost barriers and policy distortions that negatively affect their ability to generate profits from pig production. These barriers and distortions are net social losses that can be addressed by policy and institutional change, including the development and strengthening of market institutions that link smallholder producers, via contracts, to markets for inputs of known quality, to animal health services that can guarantee the quality of output, and to output markets that place a premium on higher quality output.

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