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**LIVESTOCK INTENSIFICATION AND SMALLHOLDERS:
A RAPID RECONNAISSANCE OF THE PHILIPPINES HOG AND
POULTRY SECTORS**

**Agnes Rola, Walfredo Rola, Marites Tiongco,
and Christopher Delgado**

Markets, Trade and Institutions Division

**International Food Policy Research Institute
2033 K Street, N.W.
Washington, D.C. 20006 U.S.A.
[http://www. ifpri.org](http://www.ifpri.org)**

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ABSTRACT

This essay describes the views of Philippines livestock sector stakeholders concerning the events and issues associated with the rapid rise in hog and poultry production, based on rapid reconnaissance interviews and gray literature from studies in Southern Luzon, Iloilo and Northern Mindanao, and the impressions of the authors. Changing demographic patterns, decentralized eco-governance, trade liberalization, and health and environmental policies have major impacts on further livestock intensification and on increasing scale of operations. Six factors appear to affect small farmers' decisions to intensify or raise livestock, or remain in the livestock industry. These are 1) access to financial capital; 2) technical knowledge about livestock production and their sources of information; 3) social capital expressed as trust in integrators, in the primary buyers of the livestock, and in government; 4) demographic characteristics, such as gender and age; 5) farmer perceptions of the policy environment (prices, feeds, health and environmental policies, and the local ordinances affecting the livestock sector); and 6) access to reliable markets for outputs across the year.

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LIVESTOCK INTENSIFICATION AND SMALLHOLDERS: A RAPID RECONNAISSANCE OF THE PHILIPPINES HOG AND POULTRY SECTORS

Agnes Rola¹, Walfredo Rola², Marites Tiongco³, and Christopher Delgado⁴

1. INTRODUCTION

Trends in livestock demand and production in developing countries indicate quite clearly the growth potential offered to smallholders in the Philippines. Livestock and poultry in the Philippines have been the top performers in the agricultural sector, with growth rates consistently accelerating after 1980. Within just two decades, their contribution to agricultural gross value added rose from 12% to 25% (NSCB, 2000). That remarkable performance appears to be due to increasing domestic demand, to productivity gains from the shift to larger-scale operations, and to adoption of new technologies embedded in imported breeds, veterinary medicines, and feed ingredients.

Will this performance be sustained in the presence of changing demographic patterns, decentralized eco-governance, trade liberalization, urbanization, health, and environmental and other regulatory policies? What will be the outcomes of these changing phenomena on the financial viability and environmental sustainability of the livestock enterprises in developing economies such as the Philippines? What are the factors that affect smallholders' investment decisions in livestock and their decisions to enter or remain in the livestock industry as raisers, integrators, small-scale retailers, or

¹ Professor, University of the Philippines at Los Baños, Philippines. e-mail: arola@laguna.net.

² Assistant Professor, University of the Philippines at Los Baños, Philippines.

³ Research Analyst, Markets, Trade and Institutions Division, International Food Policy Research Institute.

⁴ Senior Research Fellow, Markets, Trade and Institutions Division, International Food Policy Research Institute.

laborers? This paper attempts to better define strong hypotheses for empirical research by giving voice to differing producer perceptions of the outcomes and constraints of the move to intensified systems, and the stakes in the rising Philippines hog and broiler sectors, referred to here as “livestock”, using a rapid reconnaissance approach. The small sample size and possible lack of representativeness is the price paid for being able to do a rapid assessment of producers in different parts of the country operating at different scales of operation. The value of the contribution therefore is as a holistic description of the issues based on respondent opinions, and is not intended as a statistically adequate sample of producer characteristics or views.

2. METHODOLOGY

Interviews with stakeholder key informants (KIs) from near-market (representing high production/market potential) and far-from-market areas (representing low production/market potential) were conducted in order to determine their level of awareness to changes in trade and domestic policies, and their views related to production and marketing issues of the livestock industry. Information gathered from a small, stratified, and not-necessarily-representative sample of key informants was based on survey questionnaires (Appendix 1)⁵. Data on backyard hog growers in Laguna were based on focus group discussions. Data on demographic characteristics were also gathered to assess the differences in the demographic, social and economic profile of

⁵ For space reasons, only the poultry questionnaire is given. The hog questionnaire is essentially similar with a few commodity specific changes.

livestock producers. A total of nine respondents for hogs and six for poultry were selected from intensive livestock growers in Laguna (in Luzon), Iloilo (in the Visayas), and Bukidnon (in Mindanao), major livestock producing areas in the Philippines (Table 1). Seven members of the local government units were also interviewed specifically in areas where on-going urbanization is perceived to be due to livestock intensification⁶. Other primary information was taken from the familiarity of the principal investigator with rural Philippines societies. All study sites are familiar to the principal investigator having conducted previous project activities for a total of three years in the near market site; and a total of eight years in the far from market site. For this study, a total of fifteen person days was spent for data collection for all sites. Secondary data are from past studies, statistical bureaus and local government offices. In particular, impressions from a number of undergraduate theses conducted at the University of the Philippines Los Baños have also influenced the views of the senior author.

Table 1—Sampled key informants by location and type of farm

	Hog				Poultry		
	Backyard	Large Independent	Small Contract	Large Contract	Backyard	Small Contract	Large Contract
Near-market (Laguna/Iloilo)	2	1	1	1	2	1	1
Far-from-market (Bukidnon)	1	1	none	2	1	none	1

⁶ The list of questions addressed to local government officials is given in Appendix 2.

3. NATIONAL TRENDS OF THE LIVESTOCK SECTOR IN THE PHILIPPINES⁷

HOG SECTOR

The estimated annual growth rate in Philippines national production of pork was 3.7 % during the period 1990-1999. This rate was slower in 1990-1995 (1.6%), and much faster in the period 1995-1999 (5.5%). The supply of hogs comes from two sources: backyard and commercial operations. Backyard production is found all over the different regions of the country, commercial operations are concentrated in Central Luzon (Regions⁸ III) and Southern Tagalog (Region IV), which are areas near the major markets of Manila.⁹ These two regions account for 55% of the total commercial hog inventories in 1980 and increased to 73% of the total commercial inventory in 2000 (Table 2). On the other hand, backyard hog population figures in these two regions and in most other regions have remained about the same for the past twenty years. A slight increase in hog inventories in backyard operations can be observed in the urbanizing regions (Western Visayas, Western Mindanao, Southern and Central Mindanao (Regions VI, IX, XI and XII, respectively).

⁷ Source of secondary data in this section is from the Bureau of Agricultural Statistics (BAS), 2001.

⁸ A region is a sub-national administrative unit in the Philippines comprised of several provinces having the same geographical features and more or less homogeneous characteristics, such as the ethnic origin of inhabitants, dialect spoken, agricultural produce, etc. A province is the next largest unit in the political structure of the Philippines, and consists of municipalities, and, in some cases, component cities. A municipality consists of a number of barangays, one of which is the seat of municipal government, typically found in the town proper. A city is similar to a municipality, but is highly urbanized. A barangay is the smallest political unit in the Philippines.

⁹ The Laguna study site is in Southern Tagalog (Region IV).

The poorest regions in the country in terms of having a proportion of poor population to total population over 50%¹⁰ in 2000 are Bicol Region (Region V), Western and Eastern Visayas (Regions VI and VIII, respectively), Western, Northern and Central Mindanao (Regions IX, X and XII, respectively), and the Autonomous Region of Muslim Mindanao (ARMM) (Appendix 3). Trends in hog inventories for both types of operation have not changed for the past twenty years in the CAR and the ARMM. Central Mindanao (Region XII) had a slight increase in the hog inventories in backyard operations, while Northern Mindanao (Region X) had some increases in both the commercial and backyard operations. The data in Table 2 suggest that some of this growth is from backyard hog operations. In terms of share of commercial to total hog inventories in the poorest regions, the share of Northern Mindanao (Region X) increased and Central Mindanao (Region XII) had a decreasing share, while CAR and ARMM did not change significantly (Table 3). The decrease in Central Mindanao may largely be due to a relatively unstable peace and order situation in the area.

¹⁰ This is the poverty incidence of population whose annual per capita income falls below the annual per capita poverty threshold. Poverty threshold is based on annual per capita income required or the amount to be spent to satisfy nutritional requirements (2,000 Kcal) and other basic needs (NSCB, 2000).

Table 2—Percent distribution of inventory of hogs on commercial and backyard farms, Philippines, by region, various years

REGION	Commercial			Backyard		
	1980	1995	2000	1980	1995	2000
<i>Philippines</i>	100.0	100.0	100.0	100.0	100.0	100.0
<i>Luzon</i>						
CAR	0.3	0.2	0.2	3.9	3.4	3.0
Region I (Ilocos Region)	1.5	2.6	2.0	7.0	4.9	4.3
Region II (Cagayan Valley)	2.0	0.6	0.4	8.6	6.5	6.3
Region III (Central Luzon)	30.2	34.9	39.4	8.7	8.6	7.4
Region IV (Southern Tagalog)	25.1	34.7	34.0	10.3	10.3	9.9
Region V (Bicol Region)	1.1	0.5	0.5	8.5	7.1	7.4
<i>Visayas</i>						
Region VI (Western Visayas)	5.1	3.9	4.7	7.8	8.6	9.7
Region VII (Central Visayas)	3.2	2.6	3.1	10.3	10.1	8.6
Region VIII (Eastern Visayas)	0.2	0.1	0.1	10.5	9.7	8.8
<i>Mindanao</i>						
Region IX (Western Mindanao)	0.2	0.2	0.2	5.6	6.6	7.9
Region X (Northern Mindanao)	1.6	1.8	2.1	6.5	5.5	7.0
Region XI (Southern Mindanao)	26.2	16.8	12.3	5.2	9.1	10.2
Region XII (Central Mindanao)	1.3	0.7	0.7	2.9	4.5	5.1
Region XIII (CARAGA)	0.1	-	0.1	3.7	4.5	4.0
ARMM	1.9	-	0	0.2	0.4	0.3

Source of basic data: Bureau of Agricultural Statistics, 2001

Northern Mindanao (Region X) is visibly undergoing intensification of commercial livestock operations, particularly around Bukidnon¹¹. The relatively peaceful condition and conduciveness of the climate of the region will continue to contribute to this intensification. The trend in backyard hog inventories is also increasing in this region, as well as in other regions of similar characteristics. Mindanao as a whole is seen to be a growth area for commercial hog operation, because of the space that the island can offer and its OIE (World Animal Health Organization) certification as a FMDV(foot-

¹¹ “Far-from-market” study site.

and-mouth disease)-Free zone. While several commercial operations in Luzon and the Visayas have relocated to Mindanao, national data show that the traditional commercial hog producing regions of Central Luzon and Southern Tagalog (Regions III and IV, respectively) are still in the intensification stage (Table 3).

Table 3—Philippines hog inventories by region and percent share from the commercial sector, 1980-2000

REGION	Total inventory ('000 heads)			Share of commercial to total (%)		
	1980	1995	2000	1980	1995	2000
<i>Philippines</i>	7933	8941	10760	18	20	22.6
<i>Luzon</i>						
CAR	261	252	252	1.5	1.6	1.6
Region I	481	396	412	3.7	11.6	11.9
Region II	590	416	537	4.6	2.6	2.0
Region III	991	1235	1574	42.1	50.0	61.0
Region IV	1025	1353	1656	34.1	45.1	49.9
Region V	573	519	633	2.6	1.7	2.0
<i>Visayas</i>						
Region VI	583	685	920	12.0	8.6	12.4
Region VII	719	772	793	6.1	5.9	9.6
Region VIII	698	697	738	0.4	0.1	0.3
<i>Mindanao</i>						
Region IX	369	481	664	0.7	0.8	0.6
Region X	445	428	630	4.9	7.2	7.9
Region XI	713	947	1150	51.5	31.2	26.1
Region XII	211	336	440	8.5	3.9	4.1
CARAGA	243	258	338	0.8	0.3	1.2
ARMM	40	20	23	65.0	1.0	0

Source of basic data: Bureau of Agricultural Statistics, 2001

POULTRY SECTOR

An estimate of the growth in domestic production for chicken in the Philippines revealed that for 1990-1999, the annual growth rate was 11%. The growth rate was higher in the period 1990-1995 (9.9%), with a rate of only 7.9% in 1995-1999. There are two

general categories of producers in the poultry industry: backyard and contract poultry raisers.

Broilers are mostly grown by contracts. As in the hog industry, Central Luzon and Southern Tagalog (Regions III and IV, respectively) are the areas where broiler chickens are mostly grown because of proximity to major markets (Table 4). About 65% of the broiler chicken population in 2000 is in these two regions. The other regions also have an increasing trend in broiler production, but not as steep. Amongst the regions, Region III has the densest population of broiler chicken. Southern Tagalog (Region IV) had a dramatic decline from 1995 to 2000. One of the reasons could be that the disease outbreaks reported to occur in 1998 had put a lot of growers in the red and may not have recovered, or had just given up. The other is the price shock from a sudden surge in imports of very cheap (US\$0.40/lb) frozen U.S. chicken leg quarters in 1999-2000, which was particularly distressing to independent commercial broiler raisers.

A dramatic increase in the percentage share of broiler to total chicken inventory was observed in Northern Mindanao (Region X), one of the poorest regions (Table 5). The other poor regions (Regions VI, VIII, IX and XII) however, did not have this particular increase. The physical location of the area may influence the broiler production more than the economic status of the site.

Table 4—Percent distribution of inventory of broiler chicken, Philippines, by region, various years

REGION	Broiler Chicken		
	1990	1995	2000
<i>Philippines</i>	100.0	100.0	100.0
<i>Luzon</i>			
CAR	0.2	0.2	0.1
Region I (Ilocos Region)	2.7	3.3	3.6
Region II (Cagayan Valley)	2.4	1.6	1.9
Region III (Central Luzon)	33.6	34.5	41.5
Region IV (Southern Tagalog)	39.7	37.0	23.5
Region V (Bicol Region)	0.8	1.0	2.9
<i>Visayas</i>			
Region VI (Western Visayas)	4.2	4.1	5.9
Region VII (Central Visayas)	3.7	5.1	5.2
Region VIII (Eastern Visayas)	0.9	1.5	2.6
<i>Mindanao</i>			
Region IX (Western Mindanao)	0.8	0.8	1.3
Region X (Northern Mindanao)	1.0	1.1	4.1
Region XI (Southern Mindanao)	3.8	3.7	6.2
Region XII (Central Mindanao)	0.4	0.6	0.5
Region XIII (CARAGA)	0.5	0.5	0.5
ARMM	0.1	0.2	0

Source of basic data: Bureau of Agricultural Statistics, 2001

Table 5—Percent share of broiler inventory to total chicken inventory, Philippines, by region, various years

REGION	Share of broiler to chicken inventory total (%)		
	1990	1995	2000
<i>Philippines</i>	36.7	32.1	28.9
<i>Luzon</i>			
CAR	3.5	3.8	2.7
Region I (Ilocos Region)	15.2	17.6	18.9
Region II (Cagayan Valley)	18.9	9.0	7.9
Region III (Central Luzon)	70.2	73.8	72.2
Region IV (Southern Tagalog)	69.6	64.9	48.9
Region V (Bicol Region)	6.4	8.3	17.6
<i>Visayas</i>			
Region VI (Western Visayas)	14.8	11.6	14.2
Region VII (Central Visayas)	20.0	19.7	19.2
Region VIII (Eastern Visayas)	10.3	10.5	13.7
<i>Mindanao</i>			
Region IX (Western Mindanao)	8.0	4.8	9.5
Region X (Northern Mindanao)	9.5	7.0	26.1
Region XI (Southern Mindanao)	26.3	25.3	19.2
Region XII (Central Mindanao)	5.5	5.9	3.4
Region XIII (CARAGA)	10.6	8.5	7.4
ARMM	3.4	3.5	0.0

Source of basic data: Bureau of Agricultural Statistics, 2001

4. PROFILE OF LIVESTOCK PRODUCERS

AGE OF RESPONDENTS

Key informants interviewed who were involved in large independent and small-scale hog operations were on the average younger than those who were engaged in backyard hog operations. Likewise, backyard and contract poultry grower respondents were relatively young. The large and small poultry contract grower respondents have been in the business for more than 15 years, relative to the backyard poultry grower respondents, who have been in the business for only about eight years.

LEVEL OF EDUCATION

The large and small contract grower respondents for hog and poultry production acquired higher levels of formal education relative to the backyard grower respondents. Most of the large contract hog raisers had completed tertiary levels of formal education¹² from institutions of higher education. It is necessary for the hog raisers to have high cognitive skills to understand the terms of the business contract and to manage a large operation. Furthermore, these contract growers have to acquire enough technical knowledge in terms of correct feeding, disease management, vaccination and other medical requirements. The large and small contract poultry growers had likewise attained higher levels of formal education such as bachelor's degree in engineering and accountancy. Most of these contract growers had retired from their previous employment to work full-time in the poultry business.

¹² The Philippines educational system has a 6-4-4 structure, that is, six years of elementary or primary education, four years of high school or secondary education, and another four years of tertiary or collegiate education of a degree program. Some degree courses like Engineering, Law and Medical Sciences require five or more years of schooling. Higher education is divided into collegiate, masters and doctorate levels in various disciplines. There is also a non-degree program or post-secondary technical-vocational education that requires one to two years of education and training.

GENDER ROLES IN LIVESTOCK PRODUCTION

The key informants in this study were predominantly females. In the Philippines, the conventional wisdom is that non-commercial activities (usually production activities for home consumption) are the domain of women, but once the scale becomes commercial, then males dominate in the management and operations of the livestock business. But this is not uniformly the case, as there are programs that encourage women to have small loans for small-scale commercial hog operations. The housewife is principally in charge of the day-to-day operations in the backyard livestock business. For instance, feeding and watering on a daily basis in a backyard poultry farm are tasks typically assigned to housewives, who can still perform their household chores after accomplishing these repetitive and location-specific livestock tasks.

In the case of key informants engaged in contract farming, both husband and wife are actively involved in the business. Day-to-day operations of the contract poultry business are always taken seriously due to the strict technical requirements of the integrators and penalties for non-compliance. Unfortunate decisions with regard to feeds, pest and disease treatments can translate into significant losses. Husbands and wives normally share decision-making. In the far-from-market areas, there is also a division of labor between husband and wife. The wife mostly supervises the production operations and the husband manages the marketing function.

SOCIOECONOMIC GROUPS

It is also noted that contract grower and large-scale farmer respondents are active in the social network of their particular communities. They happen to be well respected in society, due either to their political affiliation, socio-economic status or educational attainment. Integrators normally look for these types of people: respected and influential people who have the political and financial capability to engage in contract farming operations. Integrators need the local political connection in order to facilitate successful compliance with legal and other types of regulatory policies affecting the business operation.

In contrast, the backyard grower respondents come from varied social standings, as casual observation would seem to confirm on a widespread basis. They network among themselves. In general, however, backyard livestock raisers belong to the less privileged members of the community, with few political and business affiliations. There were no cooperative organizations for smallholder livestock raisers in the three communities covered in this study.

LOCATION OF BUSINESS

A relatively cool physical environment with a good supply of water and large tracts of open land in the provinces are most conducive for commercial livestock production. Most of the large-scale hog operations are in areas far from densely populated communities, because of the perceived environmental and health

consequences. The contract growers prefer to be in a secluded area to avoid disease outbreaks. Integrators typically require that contractors be located some at least a kilometer away (usually 1-1.5 km.) from another hog business to minimize contamination of bacteria/viruses carried by the wind. In instances where the operation is located in an urbanizing area, the number of hogs raised is typically constrained by local ordinances.

In the case of poultry production, operations are located in various types of environments depending on the category of the business. In the near-market setting, backyard poultry raisers are found almost everywhere in the sample zones, whereas contract poultry farms are located in less urbanized or relatively remote areas. Backyard poultry farms, due to their small size, are normally allowed to operate in densely populated areas. However, because of zoning ordinances in the municipality, backyard poultry farms are not allowed to expand beyond their prescribed small capacities, which seems to have served as a constraint on expansion in urban areas. In the far-from-market scenario, the backyard and contract growers are able to take advantage of the lesser degree of urbanization. Less populated areas are preferred to minimize complaints from the neighborhood regarding the health risks and foul odor normally associated with poultry farming.

EXTENT OF FORMAL SECTOR CAPITAL INVESTMENT

Backyard growers with good community standing and good repayment records tend to have ready credit lines with small town feed suppliers. The volumes of business

(e.g., initial number of stocks) of backyard raisers seems to be determined in part by their capacity to purchase the initial inventories, which depends in turn on access to credit.

Respondents involved in backyard livestock operations revealed that they did not utilize formal credit sources such as banks, due to high cost of borrowing and lack of collateral. The Land Bank of the Philippines (LBP) offers agricultural loan programs, but backyard raisers are typically unable to borrow money. Most of them do not belong to an active farmer's cooperative, which is a requirement for LBP loan programs. They may not even have ready access to some informal credit institutions, such as moneylenders, because of their low socio-economic status. They would normally borrow from informal sources such as relatives, neighbors and friends during times of financial difficulties.

There are also credit programs available for the poor from both governmental and non-governmental organizations (NGOs) operating in the poor communities. In the study area far-from-market in Bukidnon, an NGO supervises a program of livestock extension and development, giving out piglets, cash for feeds, and technical advice. In some areas (also in the same town, but not same village as the respondent), the local government has initiated an easy financing program for farmers that will do away with collateral, and cumbersome loan application procedures. This program was intended to eliminate usurious practices in the rural areas, but will also presumably limit availability of private funding.

In the case of the contract growers, their investment is in the form of buildings and land for the grow-out operations, and sizable amounts of capital to finance the operations of the business. Typically, large-scale contract growers and large-scale

independent producers have the capital to operate the business and have a good understanding of investment opportunities. They have ready access to both the formal and informal credit sources, because of their stable economic status. Although they are in a better position to borrow money from banking institutions, their major sources of credit are their immediate relatives and their well-to-do friends (who may also be input suppliers), because of the relatively low cost of borrowing and quick processing of the loan. Since the growing season is relatively short (i.e., 36 to 45 days for broilers) with an assured market, contract growers can easily repay the loan. The relationship between the contract growers and their informal credit sources is built with trust and has become stronger over time.

5. VIEWS OF STAKEHOLDERS ON EVENTS/ISSUES RELATED TO PRODUCTION AND MARKETING

VIEWS OF HOG GROWERS

The main concerns of the backyard hog growers in areas near the market are feed quality and feed prices. Feed prices are high because the cost of inputs to produce feed ingredients such as corn and soya are also high. Because of changes in relative prices of the feed ingredients, local feed suppliers typically change the mixture, presumably affecting the quality (fat content, off-flavors) of the resulting meat products. A viable system to certify grades and standards for feed might be of great use to all farmers, especially smallholders, who have less market clout in dealing with suppliers.

The backyard growers in far-from-market areas regard pollution as an important issue. They need to comply with the local environmental ordinances, such as providing for waste lagoons for households that raise pigs. Pollution and the reaction to it in nearby communities are slowing down further intensification of production in already intensified zones and further urbanization of areas surrounding established farms.

The large independent growers and large contract grower informants also consider environmental pollution as a serious concern. They can either maintain or reduce the number of animals kept to minimize the hog waste contaminating ground and surface water. According to the key informants, they are willing to put up lagoons to minimize environmental impacts while reducing pressure to reduce herds. Also, they are concerned that feed formulae be created to minimize odor from fecal waste, while maintaining productivity and meat quality.

Other concerns are availability of water and market access. Water is becoming scarcer in traditional producing areas (i.e. Laguna), as more farmers and households are using it. There are numerous water springs in one of the study areas in Laguna that can be tapped as alternative sources of water supply. At the national level, efforts to better account for the true price of water are underway, and could potentially affect the livestock sector. With regard to market access, this is a significant issue for those farms that are isolated and where the roads leading to the farm are poorly built.

VIEWS OF POULTRY GROWERS

The main concern of the backyard poultry raiser key informants is their inability to penetrate the high-value formal market. The structure of the formal market is oligopsonistic and is dominated by integrators. Backyard growers feel that the quality of their product is below par relative to those of the contract growers. Backyard raisers sense that their market is limited to the local community, and is in the process of becoming even more limited because of cheaply sold “rejects” coming from large-scale contract growers. They perceive integrators as their competitors. The key informants were not aware of potential competition from very cheap imports of poultry products. One adjustment the key informants would like is that integrators offer contracts to associations of backyard raisers. However, the record of success in getting consensus in management decisions from the various smallholder participants in the study zones has been mixed at best. Growers are, therefore not optimistic that such institutional innovations will work.

Backyard grower informants near the market area believed that further expansion of their operations is not feasible, given the zoning ordinances in their municipalities motivated by environmental constraints associated with poultry production. Community-based resource management might be a possible solution in their situation, at least as far as maintaining current operations, but was not raised by the key informants. In the meantime, backyard growers in the far-from-market areas still have room for expansion.

Finally, financial capability is always an issue for the backyard growers, whether near or far-from-markets. According to them, contract growers can afford to buy or lease a project site, and can meet the government's Environmental Clearance Certificate (ECC) requirements while backyard growers cannot. The latter are inherently poor, with little education and cannot access capital in formal outlets.

On the other hand, large contract poultry growers list imports of cheap broiler products as an important issue. They consider the country's participation in the WTO-GATT as a major threat to their existence. They expect a gloomy future if imports of cheap broilers are allowed without restrictions. They fear that the integrators may turn to broiler importation in favor of local broiler production. Adjustments in terms of providing safety nets to contract growers should be supported by the government, according to these informants. They would also like technical assistance and other technology development activities to be supported by the government, to boost their competitiveness.

6. LEVEL OF AWARENESS OF SMALLHOLDERS WITH RESPECT TO CHANGES IN POLICIES

The responses were categorized as "aware" and "not aware" to changes in policies that affect their enterprise.

AWARENESS OF TRADE AND DOMESTIC POLICIES

The smallholder hog raiser informants were not aware of the changing trade and domestic policies that affect their livestock operations. They however know that the price

of feeds is increasing and that the proportion of imported ingredients in the feeds is a function of the cost of the imported soya and transportation costs.

Large-scale contract hog growers also did not seem to be aware of either impending changes in trade and domestic policies, or how the latter might affect their operations. They were more focused on the decisions of their integrators. The integrators were seen as the actors that ensured that their products would get to market. In their view, it is usually the integrators who control and dictate how much profit they can earn from their business. Contract farmers also value a long-term relationship with integrators that decreases year-to-year uncertainty. In short, the contract hog growers are more conscious of their relationship with integrators than they are of the effects of trade policy on the latter.

Similarly, backyard poultry-raiser key informants did not seem to be aware of any changes in trade and domestic policies (e.g., price policies) related directly or indirectly to production and marketing. They were more concerned with short-run fluctuations in the cost of inputs (e.g., feeds), product prices, and current domestic demand for their broilers. Their business decisions were made on the basis of their current performances in terms of net incomes. They did not make long-term projections regarding the business, except as regard to their current financial requirements and income expectations from their current inventories. They were very aware of demand peaks in local markets, such as Christmas holidays and town fiestas.

Large-scale contract poultry growers, on the other hand, were very aware of changing trade and domestic policies towards livestock in the Philippines. As mentioned

earlier, they regard imports of cheap poultry products as a threat to the viability and sustainability of their poultry business. They also perceived advantages in dealing with the integrators having dominant market positions for poultry. The contract poultry growers, unlike the contract hog growers, expect that trade liberalization will result in a significant reduction of contract growing arrangements in the country. They apparently believe that imported broilers will directly compete with locally produced broilers. If, it is profitable to import at the end of the day, contract-growing operations will eventually cease, according to this group.

AWARENESS OF HEALTH AND ENVIRONMENTAL POLICIES

Hog raisers of all categories are quite aware of the changing environmental issues and policies that might affect their operations. In particular, those near the market were aware that hog production affects water and air quality, and believe that this limits the number of hogs that they can keep. They also attempted to increase the use of hired labor to clean the pens frequently, but this has reduced their profitability. They were weary about increased enforcement of the environmental policies, such as the need for an ECC that is imposed by the Department of Environment and Natural Resources (DENR) for businesses with potential negative impact to the environment.

All hog grower respondents seemed to be aware that lack of enforcement of animal health ordinances could result in regular occurrence of disease outbreaks among the hog population. But they did not think that livestock intensification (an increase from one head to several heads per village household) would create health problems for

humans. The respondents in areas far-from-market believed that the food safety of meat could be improved if the health policies are put into practice. They in fact have to comply with the need for sanitary certification of animals before they can be slaughtered and of the meat sold in the market.

In the same way, poultry growers have a high level of awareness regarding the impact of the poultry production on the environment (particularly pollution). This level of awareness is perhaps attributable to the continuing implementation of local eco-governance, such as zoning. Aware of this, the backyard raisers are expecting that their potential secondary or tertiary source of income shall become more limited. Contract poultry growers were not clear as to possible negative impact on human health of the poultry farms.

7. STAKEHOLDERS' VIEWS OF THE OUTLOOK FOR HOGS AND POULTRY

VIEWS OF STAKEHOLDERS NEAR THE MARKET

According to backyard informants, the industry will reduce in size due to the increased enforcement of environmental policies in the face of mounting pollution problems, and due to the rising market dominance of integrators for poultry production and hog production. Small contract hog growers expressed the need to have other income sources if the number of pigs that they can keep in each batch is reduced due to enforcement of environmental laws. They see as favorable changes better breeds capable of attaining higher weights and improved feed formulas that would yield greater feed

efficiency, resulting in heavier slaughter hogs. They think the government should promote research to achieve these improvements and find ways to monitor and certify quality.

For the backyard poultry raisers, the cheaper feed imports and improved quality of broiler chicks would be favorable changes. They want the government to provide credit and technical support, and encourage more integrators to enter the poultry industry by providing capital and imposing fewer taxes.

Currently, the large-scale contract poultry growers feel dependent on the integrators for their future. They anticipate significant reductions in their production costs once imports of cheaper feed and breed stock day-old-chicks inputs occur. They affirmed that their role as producers would continue for as long as the integrators are interested in conducting business with them. They are willing to cooperate with their integrators in terms of developing production technologies that can make their product more competitive vis-à-vis imported broilers. However, if the poultry business becomes too risky due to the expected competition with imported broilers, their planned response is to reduce their volume of business. Just like the backyard growers, the contract growers would like to see growth in the number of integrators so that farmers can improve their bargaining position vis-à-vis the latter.

The contract poultry growers look to feed manufacturers to come up with relatively low-cost, high quality and environment-friendly feed products. In addition, they are also proposing that the government should allow unlimited imports of high-

quality feeds. They are hoping that the local government units¹³ (LGUs) can actively assist in identifying and allocating farm areas that are suitable for poultry production.

VIEWS OF STAKEHOLDERS LOCATED FAR-FROM-MARKET

One change hoped for by backyard and small-scale farmers far-from-market is for technical experts to be accessible to the backyard livestock growers. To their minds, the Department of Agriculture (DA) can provide this technical support, in terms of advice on diseases and feed management. They also mentioned that extension services should be readily accessible. They observed that contract growers have the best of the technical services from the integrators. These small growers believed that they may be competitive in terms of quality of their produce if they also have access to better technical services. Some changes that have been favorable are the capacity-building of poor farmers through exchange visits or “*lakbay aral*”¹⁴. In a sense, these smallholders recognize their deficiency in the technical knowledge about livestock production and management.

Livelihood opportunities that are currently offered to the poor in the community are found to be favorable. For instance, the presence of a non-government organization (NGO) teaching farmers about hog production and sanitation practices is well accepted as an improvement of their knowledge. These agents are seen as positive actors that can contribute to the viability and sustainability of the hog business in the study community.

¹³ Local government units are political and administrative units in the provinces or municipalities responsible for planning and executing projects and programs of the government.

¹⁴ This is a program funded by the local government where farmers visit other farms in provinces or places where better technologies are practiced.

Backyard poultry raisers among the key informants suggest that small growers should confederate so that they can acquire market power against “unscrupulous agents”. They do not consider large-scale contract poultry growers as competitors, because they cater to a more specialized market. Meanwhile, the contract poultry growers wish to see stricter enforcement of requirements for backyard growers to also comply with the ECC norms.

The large independent hog grower informant in the far-from-market site also foresees that the industry will continue to be profitable in the long run; and he foresees expansion of his operation into a much bigger space in the same village. He does not expect any negative impact from changing implementation of health, environmental and trade policies as far as his own operations go. He also does not fear shortage of water, due to the natural springs that are on his land. He does not explicitly consider possible negative externalities in this regard. The positive outlook of the contract grower in the far-from-market area could be due to the open space and the cheap resources that the location offers.

The outlook as discussed above seems to be different for respondents in the different regions of the country. While respondents in the highly urbanized areas discussed decreasing the intensity of production due to increased enforcement of environmental policies, the respondents in the far-from-market areas see more expansion

ahead for their operations. Changing environmental ordinances are welcome in both areas¹⁵.

8. PARTICIPATION OF THE POOR AND THEIR BARRIERS TO ENTRY IN COMMERCIAL MARKETING

BACKYARD AND CONTRACT HOG GROWERS

The backyard grower informants had their hogs picked up by the village buyers. Prices were determined based on negotiations between the growers and the buyers. At least one previous study indicated that the market intermediaries have long served the marketing needs of backyard producers and that social ties facilitate marketing of products (Mercado, 1993). That study also emphasized the prevailing views of backyard growers that they need to establish market reputation to assure themselves market outlets, and consequently reduce their transaction costs.

In contrast to the near-market condition, the backyard raisers in the far-from-market areas compete with each other in seeking buyers, especially during the periods of low demand (June-August). Frequently, the retailer of the feeds is a link to the buyer.

Hog buyers in wet markets¹⁶ attach price premia to the qualitative characteristics such as head size, length and width of back, length of sides, length and width of loin and shoulder structure, breed, and method of sale (Baula, 1990). Pork, on the other hand, is

¹⁵ This result should be taken with caution though, as respondents probably perceive that people who came to interview them had a hidden environmental agenda.

¹⁶ A wet market is a market establishment in the Philippines that primarily sells fresh meat, fish, vegetables, and fruits. It consists of wooden or bamboo stalls, usually with no walls.

differentiated at the retail level in terms of meat types/cuts, processing, and presence of fat (proportion of lean meat to a cut).

Analysts often make the point that farmers have weak bargaining power due to imperfect market information (Landas, 1993; Del Fierro, 1990; Villegas, 1999). In this reconnaissance, however, growers of all sizes near- and far- from market seemed to have quite good price information, and could also haggle with the buyers for the best price. They typically visit the municipal markets to know the current price ranges.

In the case of hog growers in far-from-market areas, the backyard raisers themselves slaughter the pigs in their backyards with accreditation from the municipal sanitary inspector. They then bring the slaughtered hogs to the market via motor tricycles or even on bicycle.

Far-from-market growers say that the reason why some backyard hog raisers get out of business is the high cost of bringing their products to the market or to the slaughterhouse. Very poor producers could not afford to hire a vehicle that will bring the hogs to the market. Transportation and labor costs per unit are expensive in hauling just one pig, or a small number of pigs.

BACKYARD AND CONTRACT POULTRY GROWERS

In contrast, the backyard poultry growers are not well integrated with the market; their main market outlets are the households within the community and their respective local municipal public markets. Some backyard raisers sell their broilers to neighbors and other acquaintances, at relatively low prices to ensure immediate disposal of their

products. In the case of the public markets, broilers coming from the backyard are considered poorer in quality when compared with the branded products coming from contract growers through the integrators. As such, backyard-raised broilers are ranked last in terms of consumer preferences, and correspondingly are typically priced relatively lower per kilogram of meat. Cognizant of their market position *vis-à-vis* branded products, backyard raisers in near-market areas have adjusted their growing season in time for periods of peak demand. During ordinary periods, backyard raisers tend to decrease inventories given limited local demand within their respective communities. It must be noted however, that local demand for broilers in a more urbanized community (e.g., Los Baños and Calamba in Laguna) is higher than in a less urbanized one (i.e., Majayjay and Nagcarlan in Laguna). In the far-from-market case where the local community of indigenous people celebrates many rituals with native chickens, backyard farmers who grow native chickens have a ready but modest niche market.

Given the highly structured value chains for poultry in the formal sector, backyard poultry raisers are unable to participate in marketing their broilers at a commercial level, which eliminates them from the rising share of demand. Integrators, who both dominate the market for poultry products and have the most to lose if disease breaks out, serve as a very formidable barrier for them to enter the market. Key informants consequently believe that poultry production at the backyard level will continue to exist as a secondary or tertiary source of income and that these producers are unlikely to benefit from growth in poultry demand.

9. OVERALL ASSESSMENT OF STAKEHOLDER VIEWS OF THE IMPACT OF INTENSIFICATION OF LIVESTOCK PRODUCTION ON THE FARM COMMUNITY AND HYPOTHESES TO INVESTIGATE FURTHER

IMPACT ON THE SUSTAINABILITY OF SMALLHOLDER ENTERPRISES

Given on-going changes in trade policies, health and environmental policies, urbanization, and the introduction of decentralized eco-governance in the Philippines, key informant interviews revealed that while local health and environmental ordinances and even enforcement were welcomed in the areas far-from-market, national health and environmental policies were found to be a likely cause of the reduction in scale of operations in highly intensified systems. For the backyard livestock sector, this will force them to carry out community-based resource management programs. Closure of some production operations is likely to happen, especially if technologies to avert environmental problems are not both useful and cost-effective.

Large contract growers prefer to be in areas with open spaces, to stay away from growing urbanization. The preference to be near agricultural areas also makes economic sense, since some feed ingredients are available locally and some poultry manure, at least, has a market in the area. The availability of non-farm incomes in the near-market areas also makes labor more expensive.

Administrative decentralization also affects the sustainability of smallholder enterprises. Because of decentralization, meat inspectors are now under the office of the

mayor¹⁷ of each municipality. There are standard protocols that need to be followed in meat inspection. Placing this function under control by local government units (LGUs) can weaken the objectivity in the decisions of meat inspectors from the standpoint of consumer protection. Key informants also said that there are very few abattoirs that actually meet the standards.

Smallholders desire technical assistance from extension workers, especially in the disease management and the control of outbreaks. Agricultural extension workers are currently under the LGUs. Local governments have certain priority projects and are subject to the political wind. At present, government veterinary services are at the province level. Findings also show that the non-government organizations (NGOs) and the private sector (feed dealers) play an important role in providing technical information to producers, especially in the far-from-market setting, where government extension workers are rarely seen.

Water resource pricing is perceived as a policy that threatens the sustainability of the smallholders' enterprises. Costs of production will be expensive as water is a main input of livestock operation, especially for hogs.

Increases in prices of feeds are also seen as a threat to smallholders. In most instances, to stay afloat, smallholders in the far-from-market areas would have mixed feeding systems, substituting in part home-produced ingredients for purchased feeds.

Opening up domestic and international trade in livestock products will not have

¹⁷ A mayor is a government official elected by the people to act as chief executive of a municipality (city or town).

any significant impact on the hog sector, according to the key informants interviewed. This is because small growers do not see either large contract growers or imports as competitor for the wet markets they sell into, according to them. But backyard poultry growers however think that it will be extremely difficult to survive due to the stiff market competition from commercial enterprises and imports. They do not expect any improvement in the market for their broilers.

IMPACT ON INCOMES AND EMPLOYMENT AT THE HOUSEHOLD LEVEL

On the one hand, intensification has brought with it good levels of income for the hog growers. In at least three cases, the respondents started the hog operation with only one pig, but have increased the number of heads through time. Informants believed that development and enforcement of environmental and health policies will downscale their businesses because strict environmental regulations would require more hired labor to clean the pens and thus raise costs. Given this scenario, the contract growers said they may revert to small backyard hog raising or even go out of business altogether. Hence, there will be negative effects in household income and employment. However, in the areas far-from-market, these same policies are not found to be constraining to hog growers in terms of their plans to expand the business.

On the other hand, the poultry growers expect a general reduction in income and employment at the household level as a result of open trade and stricter application of environmental policies. As the volumes of businesses decline, household incomes generated from backyard raising are consequently reduced. Employment at the

household level is also expected to decline, but it is not considered a significant issue since backyard broiler production is not a labor-intensive activity.

In general, the smallholder livestock growers, unlike their large-scale colleagues, particularly in poultry, did not perceive trade policies and the other domestic regulatory policies to have significant direct effects on their incomes and employment.

IMPACT ON THE ECONOMIC AND SOCIAL POSITION OF WOMEN IN THE HOUSEHOLD

In households where key informants were interviewed, women were either the full time manager of the livestock enterprise, or had a major role to play, given that they were the ones who usually stayed at home.

Intensification due to favorable policies, especially in far-from-market areas, has given women a degree of economic independence and higher social position in the household. They have become better entrepreneurs and have gained business skills as they go to the markets and the nearby shopping centers to be aware of the prices of their products. Most of all, according to them, they have money to send their children to school.

In the case of women whose business is selling broilers, the relative income contribution of women to household incomes is likely to decrease overtime as the smallholder sector continue to decline. In a rural Philippines family, decision-making is most of the time a joint activity by all members concerned, such that a reduction in income from a single activity would not necessarily diminish the social status of women in the household. However, the slowing down of the poultry business would mean that

women will be less active and less visible in terms of purchasing production inputs and selling broiler products.

Women in near-market locations probably have greater flexibility in finding new income sources if smallholder livestock fails, as compared to women in far-from-market areas. However in all cases, the opportunity available to rural women are relatively scarce.

IMPACT ON THE HOUSEHOLD NUTRITION AND THE WELL-BEING OF CHILDREN

Household nutrition is generally thought to be positively related to incomes and the knowledge of the mothers to feed nutritious food to the children (Smith and Haddad, 2000). As observed in the households of the key informants, having a backyard hog operation increases the probability that children will be better fed and educated. An outstanding example is a key informant from Laguna who gave up her teaching job and went full time as a backyard hog grower, and later became a contract grower. She was able to spend more time at home with her children and was able to send one of her children to medical school.

According to key informants in the near-market and far-from-market areas, changes in the policies that affect incomes are likely to have a differential effect on nutrition. Households near-market areas typically get most of their food requirements from the market; cash is needed for a nutritious meal. On the other hand, far-from-market households typically have backyard gardens and other farm activities for sources of

home-grown foods. The impact of decreasing livestock sector incomes on nutrition is likely to be less, other things equal, in the far-from-market areas, especially as farmers will contract to raise animals for home consumption. However, the key informants recognized that the well-being of children from access to education and health services will probably be decreased more in far-from-market areas than near-market areas if livestock cash income falls.

HYPOTHESES TO BE INVESTIGATED FURTHER

Based on the rapid reconnaissance above, six (6) factors are hypothesized to affect small farmers' decisions to intensify livestock production, or remain involved in the livestock industry: 1) access to financial capital; 2) access to sources of technical knowledge about livestock production; 3) social capital manifested in relations of trust and reputation with integrators through more transparent contractual arrangements, trust in the primary buyers of the livestock, and trust in government and the rule of law as a whole; 4) demographic characteristics: women tend to invest more in livestock than men, and the elderly (retirees) would tend to invest more than the younger ones; 5) farmer's perception of the policy environment (prices, feeds, health and environmental policies, and the local ordinances affecting the livestock sector); and 6) access to reliable markets for outputs across the year. These hypotheses should be formally investigated in a more structural empirical approach using larger stratified random samples and multivariate analytical approaches.

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APPENDIX 1—SURVEY QUESTIONNAIRE FOR KEY INFORMANTS

Title: Grassroots Views of the Stakes in a Rising Poultry Sector in the Philippines

- I. Assessment of demographic characteristics of poultry and egg producers in the Philippines (location, economic and social groups, gender, age, education, etc.) and how these have changed since 1980?

I.1 What is the profile of poultry and egg producers in the Philippines and how does this relate to poverty?

A. General Characteristics

Respondent's Address:

Date of Interview:

Family Name: _____

Respondent's Name: _____

Position in Household (HH): _____

Distance of HH from major urban center: _____(km)

How long have you been residing in this address? State year: _____

B. Household Characteristics/Information

Household Head

Name: _____

Gender: [] 1 = Male; 2 = Female

Civil Status: [] 1 = married 2 = widowed 3 = others (specify) _____

Age: [] years

Years of residence in Barangay: []years

Number of years in schooling: []years

Main occupation: _____

Number of years in current occupation: []years

Estimated/Average net income per month: []pesos

Other source of income: _____

Other sources of income of member of HH:

Estimated/Average net income per month: []pesos

Main occupation before 1980: _____

Has income increased since 1980? _____

1. Are you a member of a cooperative or any farmer organization?
[] 1 = Yes 2 = No

1.a If Yes, what type of cooperative/organization? []

- 1 = credit cooperative
- 2 = marketing cooperative
- 3 = savings cooperative
- 4 = livestock farmer's organization
- 5 = other (specify) _____

Since when did you become a member of a coop? (State year)

1.b. Does your cooperative /organization provides any assistance to you in your poultry production activities at present? [] 1 = Yes 2 = No

If yes, what types of assistance were provided?

1.c. Did your cooperative/organization provide any assistance to you in your poultry production activities before 1980? [] 1 = Yes 2 = No

If yes, what types of assistance were provided?

What are factors that make you remain to be cooperative member?

Spouse

Age: [] years

Number of years schooling: [] years

Main occupation: _____

Number of years in current occupation: [] years

Estimated/average net income per month: [] pesos

Other source of income: _____

Estimated/Average net income per month: [] pesos

Main job before 1980: _____

1.a. Is your spouse a member of a cooperative or any farmer organization?

[] 1 = Yes 2 = No

If Yes, what type of cooperative/organization? []

- 1 = credit cooperative
- 2 = marketing cooperative
- 3 = savings cooperative
- 4 = livestock farmers' organization
- 5 = Rural Improvement Club (RIC)
- 6 = others (specify) _____

Since when was she a member of the cooperative? (state year) _____

1.b. Does your cooperative/organization provide any assistance to you in your poultry production activities at present? 1 = Yes 2 = No

If yes, what types of assistance were provided?

1.c. Did your coop/organization provide any assistance to you in your poultry production activities before 1980? 1 = Yes 2 = No

If yes, what types of assistance are provided?

What are the requirements for spouse to be a cooperative member?

Is being a cooperative member influencing the viability and sustainability of your enterprise?

1.1 What is the extent of formal sector capital investment in poultry/egg production and how has this changed since 1980?

C. Credit Information

1. In the past (before 1980), have you ever tried to obtain for your poultry production operation? 1 = Yes 2 = No

If NO, why did you not try?

2. Have you ever been DENIED CREDIT for which you applied?
 1 = Yes 2 = No

(If No, proceed to 2.b)

2.a If YES (denied), which lending institution (formal, or informal) denied you credit? _____

2.a.1 How much would you have wanted to borrow? [_____] pesos

2.a.2 For what purpose had you wanted the credit then?

2.a.3 What was the reason given for being denied credit?

2.b If you were NOT DENIED credit, which formal or informal institution was able to lend you? (Refer to most recent loan transaction)

2.b.1 In what year did you make this loan? [19__]

- 2.b.2 About how much credit was granted to you? [_____]pesos
- 2.b.3 What were the terms of repayment?
- 2.b.3.1 Interest [____] percent per year or
[____] percent per _____ (*loan specific time period*)
- 2.b.3.2 Amortization: [____] years-to-pay or
[____] _____-to-pay (*loan specific length of period*)

Can you avail of credit whenever you need one? _____

Do you feel that large growers and integrators have more access to credit than yourself? _____

D. Employment Generation (per batch)

ITEM	1980 (mandays)	2000 (mandays)
Production		
Family Labor		
Hired Labor		
Marketing		
Family Labor		
Hired Labor		
Processing		
Family Labor		
Hired Labor		

E. Disease and Other Pest Management

Any disease outbreak experienced last year? [] 1 = Yes 2 = No

List the name of poultry disease outbreak and loss per disease outbreak

Disease	Number of animals lost
1.	
2.	
3.	
4.	
5.	

I.2 How are the poor producers included in commercial marketing and how it this changing? Is this different across different kinds of region?

F. Marketing Information (compare period earlier and in 2000)
(by low and high poultry production; by distance to the markets)

1. Did you sell any of your poultry last year? [] 1 = Yes 2 = No
If Yes, what was the major reason for selling? _____

CATEGORY	TYPE OF OUTPUT SOLD		
	Liveweight	Dressed Meat	Others
Where output is sold 1 = at the house/farm 2 = brought to the buyer			
If brought to buyer, distance from buyer			
Road type 1 = dirt/earth (not all weather) 2 = all-weather unpaved (e.g. gravel) 3 = all-weather paved road (e.g. concrete/asphalt)			
Transport use 1 = tricycle 2 = jeepney 3 = others (specify)			
Prevailing price during selling period			
Highest price received during selling period			
What month			
Lowest price received during selling period			
What month			

Are the above changing?

I.3 What are the barriers to effective participation of the poor? Are they different in areas of high and low poultry/egg production and marketing potential?

List three (3) things which you must consider to be the biggest constraints to the development of animal production activities into a profitable business enterprise today.

1. pests and diseases
2. high input costs
3. physical environment
4. social distance from the market agents
5. spatial distance
6. _____
7. _____
8. _____

If you were to expand your animal production today, list the three (3) major things that will inhibit (prevent) you from being able to do so and how?

1. municipal ordinances
2. lack of capital
3. lack of knowledge on diseases and other management information
4. _____
5. _____
6. _____

I.4 What are the institutions and policies having significant impact on the breadth of participation in different kinds of areas?

Trade policies
Zoning ordinances

What do you think are the three most important things that the Government could do to help you develop your animal production operations into a profitable business enterprise?

1. reduce fees on licenses
2. provide insurance
3. _____

I.5 What are the key elements of success in involving smallholders in contract

farming for poultry or eggs?

Social capital
Less riskiness in income
Others

II. What are the views of smallholder, large-scale and integrator poultry producers—as stakeholders—with respect to the events and issues that most concern (and deeply affect) them in the matters relating to poultry/egg production and marketing.

- a. What are the concerns that you feel will affect or are affecting your operations with respect to poultry and egg production and marketing?
- b. What do you think lies at the origins of the situations of concern to them?
- c. Who do you see as competitors?
- d. What adjustments have you made as a consequence of these problems?

III. To assess the level of awareness of smallholder poultry/egg producers of the changes in trade and domestic policies, health and environmental policies; and determine how smallholders perceive these policies to affect them in terms of household income, employment, poverty alleviation, and viability and sustainability of their enterprise, vis-à-vis larger commercial producers and processors.

III.1. Awareness about trade policies – with regard to the Philippines trade policies towards poultry/egg products, other livestock products, corn and sorghums, mixed feeds and other ingredients.

1. Are you aware of certain trade policies affecting poultry and eggs?
Yes _____ No _____
2. If Yes, can you name these?
3. Do you feel that there have been changes in these policies through time?
4. What kind of changes are these?
5. How are you affected by these changes in terms of:
 - household incomes
 - food security
 - viability of the enterprise
 - sustainability of the enterprise
 - economics and social position of women in the household
 - household nutrition and the well-being of children

III.2 Awareness about domestic policies - With regard to domestic regulatory policies toward the same items?

6. Are you aware of certain domestic policies affecting poultry and eggs?
Yes _____ No _____

7. If yes, can you name these?

8. Do you feel that there have been changes in these policies through time?

9. What kind of changes are these?

10. How are you affected by these changes in terms of:

- household incomes
- employment
- food security
- viability of the enterprise
- sustainability of the enterprise
- economics and social position of women in the household
- household nutrition and the well-being of children

III.3. What are the options concerning the impact of poultry sector policies on health (human and animal) and environment (waste pollution and grazing controls)?

11. Are you aware of certain health and environmental policies affecting poultry and eggs? Yes _____ No _____

12. If yes, can you name these?

13. Do you feel that there have been changes in these policies through time?

14. What kind of changes are these?

15. How are you affected by these changes in terms of:

- household incomes
- employment
- food security
- viability of enterprise
- sustainability of enterprise
- economics and social position of women in the household
- household nutrition and the well-being of children

IV. To assess smallholder, large-scale and integrator poultry/egg producers separate views on the outlook for their industry and their participation in it, and their view of what actions would improve their position.

IV.1. What are your views of the outlook for the industry and your place in it?

IV.2. What changes would you like to see?

IV.3. What do you think can be done; should be done?

APPENDIX 2—LIST OF QUESTIONS DURING FOCUS GROUP DISCUSSIONS WITH SOME OFFICIALS OF THE LOCAL GOVERNMENT UNITS

A. List of Questions for Livestock Inspector (a municipal official under the local Department of Agriculture (DA) Office)

1. What are the municipal ordinances on livestock that you know of?
2. Are these being implemented?
3. What are penalties for non-compliance of these ordinances?
4. What are the municipal agriculture office's programs on livestock?
5. What are the national programs of the DA on livestock development?
6. What is your role as a livestock inspector in this municipality?
7. Have you undergone training to acquire skills needed for your work?
8. Are there instances when livestock holder contact you or local DA?
9. What are the services you offer to livestock holders?
10. Do the farmers pay you for your services?
11. How often do you visit the farms with livestock?
12. What are your other duties in the municipal DA?

B. List of Questions for the National Meat Inspector in the Municipality

1. What are your duties as meat inspector?
2. Who pays for your salary?
3. Given that the National Meat Inspection Council (NMIC) is a national regulatory agency, how do you relate with this agency as a local employee?
4. In the implementation of the meat quality standards, did you experience any problems at the local level?
5. How do you deal with these problems?
6. Is the slaughterhouse being inspected from time to time? By you? By a national employee?
7. Have there been conflicts with the local officials in terms of your pursuing your duties as per the national regulations?
8. Have there been instances where you find “double dead meat” in the slaughterhouse? (Double dead is when an animal is already dead when brought to the slaughterhouse and the meat inspector has to pronounce that it will be slaughtered.)
9. What do you do in these instances?
10. How would you determine if the animal that is brought in the slaughterhouse is sick?
11. What is the policy of the NMIC for sick animals being bought to slaughterhouses?
12. What kind of training do national meat inspectors undergo?
13. Are the meat inspectors' wages standardized across the country?
14. Are there instances that wages will be lower than the standard because the municipality cannot afford the said level of wage?

15. Does being an employee of the local government office deter you from performing your duties, which are national and regulatory in nature?
16. If you have problems at the local level with respect to the implementation of the national policy by a local official, is there a court of law that you can go to?
17. Is this set-up of the NMIC having been devolved to the LGU a good set-up in terms of the objectivity of pursuing your work?

APPENDIX 3—POVERTY INCIDENCE OF POPULATION AND POVERTY THRESHOLDS BY REGION, PHILIPPINES, 2000

REGION	Poverty Incidence of Population (%)	Poverty Thresholds (In Phil Pesos)
<i>Philippines</i>	39.5	13823
<i>Luzon</i>		
CAR	43.8	14749
Region I (Ilocos Region)	43.6	12350
Region II (Cagayan Valley)	35.0	14639
Region III (Central Luzon)	23.0	15261
Region IV (Southern Tagalog)	31.0	12825
Region V (Bicol Region)	61.9	12600
<i>Visayas</i>		
Region VI (Western Visayas)	51.1	11061
Region VII (Central Visayas)	43.8	10783
Region VIII (Eastern Visayas)	51.1	10997
<i>Mindanao</i>		
Region IX (Western Mindanao)	53.0	12160
Region X (Northern Mindanao)	52.2	12430
Region XI (Southern Mindanao)	45.1	12331
Region XII (Central Mindanao)	58.1	13878
ARMM	71.3	10

Source: National Statistical Coordination Board (NSCB), 2002.

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