The current avian flu situation has clearly demonstrated what we already knew: that animal health service structures are malfunctioning in most parts of the developing world. We have seen that flu sending the animal health system to the top of many Governments’ agenda. However, if Governments and donors are primarily preoccupied with containing the risk of a human pandemic there are serious doubts that the results of the commotion around avian flu will significantly improve smallholder poultry producers’ access to animal health services.

T
ake any developing country and you will probably find that the vast majority of the rural population keeps poultry. Ask any smallholder poultry producer in that country whether she has met, not to mention been trained by a veterinarian or para-veterinarian and you will most likely find that she has not. In short — although we know that most rural folks keep poultry; although we know they have several good reasons for doing so among which income generation and food security are probably the most important; although we know that a few simple principles of improved animal health management could have a tremendous effect on productivity of that production unit — the outreach of animal health systems is appallingly low. Yet people are able to gain significant benefits from smallholder backyard production systems. If smallholder poultry rearing had not produced benefits, people would have rejected the activity as irrelevant, but they do not! On the contrary, smallholder poultry production is probably the most popular and widespread economic activity, along with staple food production, in the entire developing world. Which other activity engages almost the entire rural populations, across countries, across regions? For good reasons!

### Socioeconomic importance of backyard poultry production

Numerous studies have documented the socio economic importance of smallholder poultry production in countries around the world. Such studies note a variety of the economic, social, cultural, nutritional, and religious reasons for keeping a small poultry flock, but a simplified and non-exhaustive account of the rationales may be suggested:

**Economic rationales** (e.g. Riise et al., 2005; Gueye, E.F., 2005; Todd, 1996; Nielsen, 1996):
- Poultry is used to generate income, either as main income source or as supplementary income to other activities.
- In some contexts it is one of the only acceptable income sources for women.
- Poultry is used in integrated farming systems contributing to sustaining soil fertility and aquaculture productivity.
- Poultry production is used to diversify income sources and thereby to manage and control the risk of shattered household economics resulting from poor harvest or loss of other income. Poultry ownership contributes to reducing households’ vulnerability to shocks.
- The poultry flock is used as a savings account, as «livestock banking», and birds are sold when the household is in need of petty cash and for cash payments related to household and life cycle events: school fees, visits to health clinics, contribution to gifts etc.
- Backyard poultry production demands a relatively small capital and labour input, the production cycle is short and thus appropriate for people with limited or a low asset base and no savings.
- Poultry is a stepping stone for building an asset base and for investments in other economic activities related to agriculture such as investments in larg-
er animals & land or related to non-agricultural activities such as purchase of a rickshaw or a little shop.

Social and cultural rationales (e.g. Seeberg, 2003; Riise et al., 2005; Chipeta, 2003; Dorward et al., 2004):

- Ownership of poultry and other livestock can enhance social acceptance of otherwise socially marginalized people.

- Ownership of poultry may legitimize (intra-household) time spent with fellow women villagers instead of being completely preoccupied with domestic affairs.

- Marketing of poultry is a legitimate reason for enhanced mobility of women.

- Backyard poultry production is a home-stead activity which can be undertaken without being labourer for or supervised by others.

- Poultry are used as gifts in many cultures. Being able to provide gifts, e.g. to village chiefs or elders may have social and cultural significance.

Nutritional rationales (e.g. Nielsen et al., 2003; Neumann et al., 2002; Neumann et al., 2003):

- Animal source foods, including eggs and poultry meat, are excellent sources of essential micronutrients. Millions of poor, if not billions, suffer from micronutrient deficiencies, and it is known that such deficiencies have impact on people’s cognitive development.

- In times of insufficient household access to staple foods, trade and bartering of poultry can level out shortfalls in food supply and thus contribute to enhanced food security when the household is most prone to hunger.

These rationales clearly indicate the potential benefits from backyard poultry production that could be realized to a much greater extent than is the case today if the animal health service structures where more accessible and responsive to the needs of the smallholders.

The missing animal health services – public versus private services

The animal health service structures required for providing training, information services and supply of vaccines and medicines to smallholders are missing where they are most needed. But establishing a system with large outreach has not been achieved neither through the public nor the private sectors. Prior to the structural adjustment programmes (SAP) introduced in the 1980s by the World Bank and the International Monetary Fund, the delivery of animal health services was the responsibility of the state in virtually all developing countries. However, budgetary constraints of the state resulted in animal health services with limited operational budgets and thereby with low staff efficiency. There was staff available but no operational budgets to fuel their motorbikes, no motorbikes to fuel or no cash for allowances. The structural adjustment programmes were introduced to privatize, among other things, the animal health services based on the assumption that an animal health system operated by private service providers would be more efficient than a publicly run system. But the structural adjustment policies were imposed on the countries and generally lacked national ownership. An effect of this lack of government commitment to the policies of privatization was, and to a large degree still is, an institutional vacuum where both public and private service providers coexist alongside various informal and more or less dubious operators who act outside the regulatory framework taking advantage of the profound demand for animal health services and products. Such operators are known to deliver medicines and vaccines of doubtful quality and origin, and may not have the required knowledge to advise livestock owners on the proper administration of the medicines. (Woodford 2004)

The private sector operators, including in some countries trained and registered veterinarians, are mainly servicing owners of larger livestock and when dealing with poultry, the focus is on larger commercial production units with greater demand for veterinary drugs which can be serviced at lower transaction costs, than is the case with smallholder poultry producers. The public sector still has a formal commitment to service smallholders in most countries, but do not have the resources required for the task. The general picture from a five country study covering Lao DPR, Viet Nam, Indonesia, Thailand and Cambodia (Dolberg et al. 2005) is that government veterinarians top up their salaries by working for a fee for the com-
mmercial sector, but reaches the village and backyard system «at very limited degree, if at all» (ibid). A study from Bangladesh (Riise et al, 2005) indicated that less than 5 percent of smallholders had had contact with the public animal health system. In the void of reliable animal health services donors and international NGOs have occasionally promoted a system of para-veterinarians and community animal health workers under some form of supervision by trained and registered veterinarians in the public or private sector, sometimes with considerable degree of success in terms of effectiveness. Such systems are often introduced in limited geographical areas and the sustainability of the system as well as upscaling to national level remains a dire challenge. Based on analyses of the economic characteristics of the various different animal health services donors (ibid. p. 8-9): A list of references is available from the author. Enforcement of the DLP plan would result in the elimination of smallholder free-range production and thereby to a significant negative impact on livelihoods of the vast majority of rural households unless alternatives are identified and developed. Upscaling requires investments and business skills that few backyard producers possess or are likely to acquire. So most smallholders would probably continue and sustain their current livelihoods and wait to see if this restructuring plan will be enforced. It is also very likely that the restructuring plan will alienate smallholder poultry keepers from the veterinary authorities and thereby undermine trust in the authorities. Many poultry keepers also engage in pig fattening but would they access the veterinary services in case of pig disease outbreaks if they continue illegal poultry rearing? The effects of the ban on free range poultry production are yet to be studied, including the effect on farmers’ use of and access to animal health services. Having adopted the restructuring plan the challenge of closing the gap between demand and supply of quality animal health services, of finding a viable mix of public and private service providers, has obviously changed character. The challenge has become even larger – in Viet Nam and in the countries that follow the same policies.

Policy responses to HPAI and the future of backyard poultry

Backed by the UN-Food and Agriculture Organization (FAO) and World Organisation for Animal Health (OIE) the response to outbreaks of HPAI in many countries has been mass culling of both backyard and industrial poultry, followed by vaccination campaigns and a temporary ban on free range poultry production. Some countries, also backed by FAO, e.g. Viet Nam have followed up with policies to «restructure» the poultry production through eliminating free-range backyard poultry production. About 70 percent of all rural households in Viet Nam keep poultry and the majority of these households practice small-scale free pasturage. Presently, 65 percent of the poultry production in Viet Nam is based on a small-sized farming and free scavenging and pasturage systems (DLP/MARD 2006 p. 8). The Department of Livestock Production (DLP) has developed a restructuring plan for the poultry sector in Viet Nam with the objective of increasing the number of large-scale industrialized poultry producers and decreasing the small-scale poultry production. DLP’s plan of restructuring the poultry sector aims at limiting the risks of disease spread and increase poultry farm bio security. The target is to decrease the small-sized farming chicken production proportion from 72 percent in 2005 to 43 percent in 2015 and decrease the proportion of small-sized pasturage waterfowl production from 93 percent in 2005 to 48 percent in 2015 (ibid. p. 10-12). DLP’s restructuring plan is said to address the present problems in the poultry sector, which DLP notes as (ibid. p. 8-9):

- Present poultry production is characterized by spontaneity, scattering, small size.
- Poultry diseases are still frequent and out of control.
- Low productivity and efficiency of poultry farming and poor competitiveness in the international market.
- Backwardness of the slaughter and processing of poultry together with unsatisfactory hygienic conditions of food.

The restructuring plan addresses the following limitations for small-scale farmers (ibid. p. 13 and 16 – DLP’s formulation of the limitations):

- The self-sufficient poultry farming in the households must be re-organized so as to facilitate the control of diseases. Accordingly, fowls raised by the households must not be left wandering in the village; there must be cages that are surrounded by fences or walls for the isolation purpose.
- The poultry husbandry in the towns and cities is to be abolished.
- The free pasturage of ducks in the rice field shall be radically shifted to impoundment farming (dry farming). Definitive measures shall be taken to abolish the free release of ducks in the channels and rivers.
- Establishment of poultry production areas for semi-commercial and industrial poultry production situated away from residential areas. Depending on the land availability, each district and commune must have at least 1-2 such farming areas. These production areas will be for poultry producers with more than 500 poultry heads.
- Abolishment of live poultry sale inside cities and towns. It is prohibited to trade poultry products without quarantine seal of the veterinary office or poultry with unclear origin.

In many developing countries, only a few number of smallholders have ever had contact with the public animal health system.