

## Costs of HPAI outbreaks in West Bengal, India<sup>1</sup>

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During the recent outbreaks of HPAI in West Bengal about 6.65 million poultry have been culled until 23 January (Government of India (GoI) 23 January 08). Many households derive income and food from poultry keeping and especially women are in charge of this. The affected poultry keeping households have not only lost the value of their chicken and ducks, in addition they may lack this income source for several months. Though compensation is paid it only partly covers the losses arising from losing their poultry by culling.

The average household keeps a backyard flock of about 7 Desi (local breed) chickens. With this flock it can produce 12 kg of broiler meat (about 13 broilers) and 195 eggs per year. Before the HPAI outbreaks, households were able to sell these products for US\$ 30 or to use a proportion of the meat and eggs for home consumption. After deducting the cash costs for buying feed and medicine this backyard production systems results in US\$ 25 value added per year.

### *Compensation for culled birds helps households in the short term.*

Compensation for culled poultry is currently paid at a rate of US\$ 0.25 for chicks under 3 weeks of age and US\$ 1 for all other chicken. This partly offsets the lost value of the birds. A Desi chicken with an average weight of 0.9 kg had a market value of US\$ 1.32 (at a market price of US\$ 1.47/kg) before the HPAI outbreaks. An average flock with 7 birds comprises of two adult chicken and 5 growing chicks. The lost value of birds due to culling would be composed of approximately one fully grown chicken and 6 chicks at US\$ 0.50. Thus the loss equals US\$ 5.14. Depending on the age of the chicks, a household might receive compensation between US\$4.75 and \$ 5.50.

### *(Women) Farmers face higher medium-term losses from foregone income and need to prevent reinfection*

Once the birds are culled the area has to stay depopulated for at least 3 months to prevent reinfection of newly introduced birds. Therefore, households in an area that has been affected by culling can only restart poultry keeping after 3 months. At this time they will still not earn money from poultry production, but instead have to invest in buying new chicks and feed. The first chicks will not be ready for slaughter after another 3 months and the chicks will not start laying eggs before 5 months of growth. The foregone income after culling and until production kicks in again will be US\$ 14.18.

Infection of poultry represents a constant threat to the income contribution resulting from poultry keeping. In order to reduce this threat, households must face the costs associated with improving their biosecurity practices, to protect against HPAI and other infections.

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*Typical backyard poultry farmers lose US\$ 13.82 from lost birds and foregone income*  
Summing up all the losses of a typical backyard chicken keeping household that result from culling their chicken flock, one arrives at an estimate of about US\$ 13.82 after the inclusion of compensation payments.

*Losses put in perspective*

The losses arising from dead and culled birds represent a considerable loss of income share for rural poultry keepers. Poultry keeping contributes between 7% and 10% of the average monthly household income of US\$ 48 per month, with the bottom quintile of households having a monthly income of no more than US\$ 31<sup>3</sup>. Based on Government statistics and the “Human Development report 2004”, 72% of the 82 million inhabitants in West Bengal state live in rural areas and 21% of the rural households that are self-employed in agriculture were below the poverty line.

It must be stressed that smallholder poultry keeping has several advantages and functions that may not be expressed in pure monetary terms. Poultry can be easily converted into cash in case of an emergency need and therefore serves as bank or security net for poor poultry keepers. Mainly women tend to look after the poultry and they are empowered to decide on what the extra money earned by poultry keeping is spent.

*(Women) Farmers keeping improved breeds have higher economic incentive for biosecurity upgrading*

An improved breed called “Kuroiler” is kept by many poultry keepers in West Bengal. With an average flock of 8 chickens, a typical household would face a loss of US\$ 11.34 from its birds lost by culling, of which US\$ 5.75 would be offset by compensation. The forgone income would average about US\$ 26, raising the total loss per household to US\$ 31.6. For these poultry keepers the incentive for improvements of their biosecurity practices is even higher in order not to put the substantial income contribution from poultry at risk.

*Plummeting prices and market bans affect all poultry keeping households*

Losses are not constrained to poultry keepers with HPAI infected or culled birds. All levels of the poultry production chain are faced with high income losses due to the plummeting demand for poultry and subsequent market priced decreases. The groups included are: small-scale producers, industrial and semi-industrial farms, feed producers, distributors and collectors.

## **References**

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<sup>3</sup> According to a household survey prepared by the South Asia Pro Poor Policy Livestock Policy Programme in 2007.