

# Stories of change

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## Resilient poultry management for women in Kenya

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### Key messages

- Research shows that indigenous chicken are a strategic component of building resilience in semi-arid Kenya. Adaptive research is being conducted with a network of 270 primary and secondary farmer groups.
- Currently, 54 primary farmer groups (755 women and 498 men) are experimenting with 14 resilience enhancing technologies, in order to diversify their farming systems and transfer knowledge to more than 5,600 men and women farmers in 133 other secondary groups.
- Farmers have formed 18 marketing groups (716 men and 1,007 women) to negotiate better prices, up to 75% above the average price paid to individual farmers.

### Context

Chronic hunger and malnutrition afflict families across eastern Kenya. Stunting in children, strongly associated with malnutrition, is more prevalent (42%) in this region than anywhere else in the country (KDHS, 2010). These challenges are compounded by very limited adoption of

improved farming practices and technologies. Women have been particularly reluctant to adopt new farming techniques and new seed varieties, often lacking the resources or decision-making power to take such choices. Their low adoption rates also arise from long-standing gender biases in research, extension, development and policy (FAO, 2011). Too often, researchers have concentrated on crops, livestock and enterprises which lie within men's control, or are just not prioritized by farmers.

Women in eastern Kenya have historically been very active in community-level engagement, through participation in church, farmer and women's groups, as well as public politics. A group-based approach to disseminating knowledge, technologies and practices provides a means of mobilizing these extensive networks. Having the primary responsibility for families' food and nutrition, women hold a major stake in building food security resilience.

### Local priorities

To address low levels of adoption, and to build on high degrees of community engagement, a team of Kenyan and Canadian researchers has been engaged in a farmer-led action research project since 2011, working with smallholder farmers (54 groups) in Makeni, Machakos and Tharaka-Nithi counties. Group members prioritized the farming practices they wanted



McGill





Vaccinating indigenous chickens against Newcastle disease

the research to address. Women, in particular, selected improvement of poultry management as a priority means of strengthening livelihoods in the face of climate change. Farmers (37 women, 24 men) were then trained to serve their communities as providers of poultry-related information and services, including vaccination. The training aimed to build networks of trainees to support the implementation of husbandry and group marketing practices on a larger scale.

“ We want to make a community-based organization. We will come together, sit down, and see how we can reach a bigger market; let’s say Nairobi. That is our vision. After that, we make money, we feed our families, we educate them and we live a comfortable life. ”  
**Rose Kamba, Wote**

### Importance of local chickens

Up to 98% of families in rural Kenya keep small flocks of chickens, mainly local or ‘indigenous’ types. Chicken-rearing is traditionally considered a women’s activity, but provides assets which benefit the whole household. Indigenous



An indigenous chicken market

chickens are also a ready source of savings and income for women; chickens serve as virtual ‘bank accounts’ and help them to improve family nutrition and food security (Quisumbing and McClafferty, 2006). Improvements in chicken management also have other benefits, such as manure for use in the garden. Chicken-keeping also promotes crop diversification (e.g. to produce supplementary chicken feed) and investment in natural resource management (e.g. rainwater harvesting).

## Emerging outcomes

### Increased productivity

Trained farmers were given a starter flock in order to test, evaluate and demonstrate the husbandry practices they had learned. Among these farmers, flocks have tripled in size, on average, in six months. Some flocks have increased even more impressively. Tabitha Mulewa Benson started 2013 with four birds; by the end of the year she had 100, whose feed she supplements with home-grown grain.

### More and better food for women and children

Increased flock sizes mean increased availability of meat and eggs (Table 1). As eggs are laid year-round, farming households have a stable supply of food and income. Eggs are particularly valued for children’s nutrition.

### Greater income from higher-value local trade

After training, farmers formed 18 groups focused on collective marketing, with each

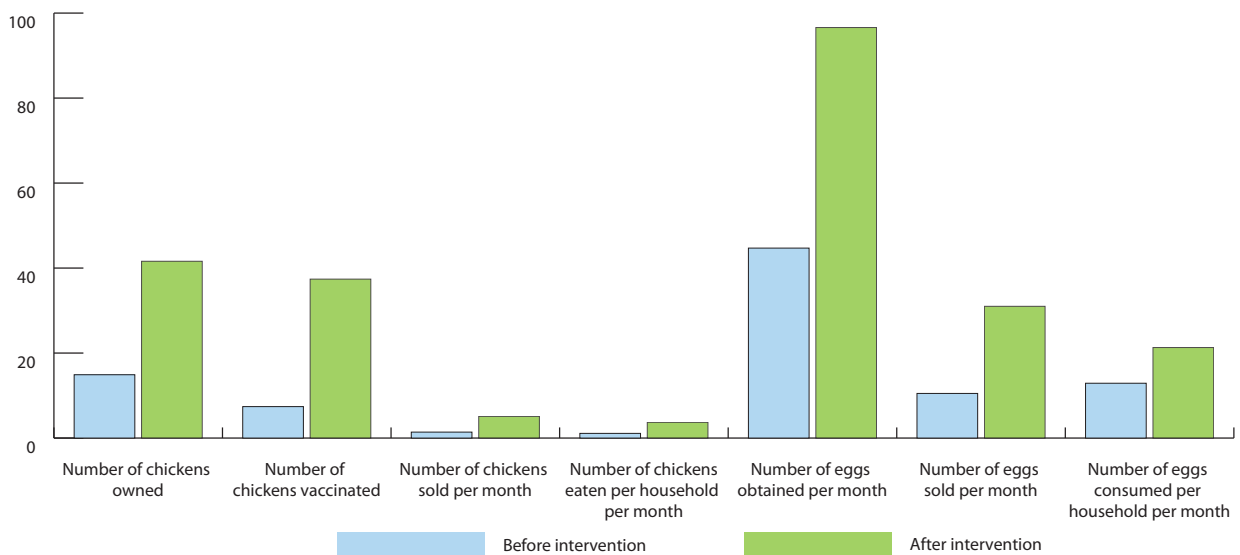


Table 1: Increase in ownership and utilization of indigenous chickens and eggs

group prioritizing chicken as one of their three focus commodities. Groups have been able to bulk their products in order to negotiate sales with buyers. One marketing group in Katangi has managed to negotiate a bulk price for its chickens much above the average price given to individual chicken farmers.

Class	Average price for individual farmers (Ksh)	Jointly negotiated price (Ksh)	Price improvement (%)
Large	350	550	57%
Medium	250	450	80%
Small	150	200	33%

### Improved poultry health

One of the most serious constraints to small-scale poultry production lies in regular outbreaks of poultry diseases (such as Newcastle disease) during the dry seasons, which can completely destroy poultry flocks. This means that women's food stocks and 'bank accounts' are regularly diminished. But the farmer-led research has prompted increased adoption of improved poultry management practices, including vaccination.

Vaccination has increased bird survival rates not only within the flocks of the trainees, but also those of farmers reached through the learning and knowledge networks the trainees have built. A sample group of 31 trainees, male and female, vaccinated more than 18,000 chickens over a six month period in 2013. In Kavati village, Makueni, farmers whose flocks were vaccinated achieved

a near 100% survival rate despite an outbreak of Newcastle disease in the area. Neighbors who didn't vaccinate lost 75%-100% of their birds.

### Strengthened farmer knowledge networks

By building farmer-led learning and knowledge networks, the project piloted a group and network-based method of disseminating information and technologies, and putting food security research into practice (see outcomes below for examples). As well as helping farmers to share knowledge, the method can facilitate women's access to, and participation in, agricultural decision-making.

Joint innovation by farmers and scientists has led to improved disease control and flock husbandry. By focusing the research on existing local practices, new management skills were easily adapted to local conditions. Farmers then innovated further by identifying means to inform other farmers on the benefits of the improved practices, via women's groups, farmer organizations, community groups and other networks.

“ All that I know from the training, I am putting into practice. We are selling many eggs, not like before. We are selling many small chicks to the nearby women groups and also the neighbors at large. ”

Rose Kamba, Wote



Women with two cowpea varieties

group marketing of green grams and cowpeas.

Most importantly, the researchers will continue to focus on the impact of these practices on the improvement of food and nutrition security. Improving women's nutrition also has positive impacts on the well-being of children, especially the very young, as well as on women's general health and participation in social and economic activities.

When both women and men farmers set the research priorities, and engage together with group-based farmer learning and knowledge networks,

agricultural research can more readily fulfill its promise to bring an end to hunger and malnutrition, not only in semi-arid Kenya, but wherever hunger persists.

## Implications

The outcomes of the project have special implications for women and children. These include nutritional resources, natural resource management (through diversification of crops, use of manure and water harvesting technologies) and income opportunities, all through healthy husbandry of backyard chicken flocks. The flocks provide multiple benefits not only for women and children, but also for men. Healthy chicken husbandry empowers women, feeds families and builds the resilience of the farming system as a whole. The project team envisions generalizing the good results attained thus far through widespread dissemination of improved poultry husbandry as one key means of building on women's contributions and access to improved household food security.

As the study continues in 2014, the research team is keen to observe the extent to which farmers sustain their adoption of improved poultry management. Together with farmers, the team will also pursue other farmer-identified priorities, including evaluation of drought-tolerant sorghum and millet, and

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This outcome story is one in a series that reports on research supported by the Canadian International Food Security Research Fund (CIFSFR), a program of Canada's International Development Research Centre (IDRC), undertaken with financial support from the Government of Canada, provided through Foreign Affairs, Trade and Development Canada (DFATD). Produced by WRENmedia in March 2014.