More productive chickens—potentially a multi-million dollar business

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Profile for the private sector
In November 2014, the International Livestock Research Institute (ILRI) and partners1 established the African Chicken Genetics Gains (ACGG) program to provide more productive chickens to smallholder farmers in Africa. The program has been designed to improve chicken genetics and the delivery of farmer-preferred chickens to support sustainable growth in this small, but growing industry.

The improved breeds of chickens from India and a number of African countries will be tested to demonstrate their high-production potential under low-input systems. By taking note of existing research in the target countries, ACGG will implement innovative approaches to the development and supply of genetics in country value chains.

Expected outcomes
1. A deep understanding of the chicken types preferred by smallholder farmers, particularly women.
2. Efficiently functioning public-private partnerships ensuring smallholder farmers gain access to their preferred chicken breeds that produce at least 200% more than existing local breeds, with significantly reduced mortality risks due to proper brooding and pre-vaccination.
3. Well-publicized data demonstrating the adoption of preferred chicken breeds leads to significantly increased production, productivity, income, and household consumption amongst smallholders.
4. A functioning multi-country network of public-private partnerships for long-term chicken genetic improvement using modern tools to drive accelerated genetic gains and deliver more productive, farmer-preferred breeds. These productivity gains are also expected to lead to reductions in poverty among smallholder farmers, increased household animal protein intake, and the empowerment of women farmers.

A business opportunity
Historically, commercial intensive chicken production using exotic genetics has not been competitive in Africa due to high feed, veterinary and energy costs (Sonaiya and Swan 2004). Exotic birds were not suited to local conditions and demanded high investments in feeds, veterinary support and labour. Unfortunately, local and tropically adapted breeds were overlooked. Today, ACGG combines new genetics, enhancing delivery systems to support the adoption of highly productive birds to be used in semi-scavenging systems in the tropics. Suited to local conditions, these birds will be pre-vaccinated and require less feed than their exotic counterparts.

1 ACGG partners include Ethiopian Institute of Agricultural Research; Wageningen University Animal Breeding and Genomics Centre, and Koepon, (Netherlands); Obafemi Awolowo University, National Animal Production Research Institute, and Federal University of Agriculture in Abeokuta (Nigeria); Tanzania Livestock Research Institute and Sokoine University of Agriculture (Tanzania); and PICO Eastern Africa. Funded by the Bill & Melinda Gates Foundation, ACGG is part of the ILRI global livestock genetics initiative—LiveGene.
The Evans School of Policy Analysis and Research identified opportunities for poultry farmers in Africa to expand production in response to rising demand. The research suggested that, in order to make the most of these opportunities, smallholder farmers would need to benefit from better access to more productive and disease-resistant chickens. Given nearly 40% of global chicken exports going to Africa and the Middle East (Rabobank 2013), the opportunities in the identified countries are huge. For example, Ethiopia’s Livestock Master Plan (2015–2020) aims to raise chicken meat production to 164,000 tonnes and eggs to 3.9 billion by the year 2020.

Key to the success of the program will be its ability to deliver more productive chickens on a large scale throughout the continent of Africa. ILRI seeks to catalyse partnerships between the private businesses and the public sector to deliver this goal. Working closely with chicken businesses, public sector officials and researchers, ACGG will identify which types of chicken genotypes farmers prefer in different locations in the three target countries, and make these breeds more readily available.

Leveraging existing research in the target countries, ACGG will implement innovative approaches to the development and supply of genetics in country value chains. These innovative approaches are:

1. Testing birds for farmer preferences and productivity-private sector engaged in a limited capacity to hatch, brood, and distribute limited amount of birds.
2. Creating PPPs for the multiplication and delivery of selected strains-private sector to be engaged in a long term capacity to continuously maintain, multiply, and distribute.
3. Genetic gains program for the continued improvement of chicken genetics-private sector works with the public sector to access improved strains and to maintain strains, multiply, and sell.

Engagement with private businesses is crucial to the success of the program. Success means that private businesses will adopt, maintain and multiply these more preferred productive chickens. In addition to direct engagement, ACGG and its partners have established innovation platforms to strengthen relations with private businesses, public officials (e.g. veterinarians, extension officers), researchers and small farmers etc. The objective of these meetings and events will be to:

1. Analyse the chicken value chain in each country to get a better understanding of the potential and constraints along these value chains, including farmers, hatchers, input suppliers etc.;
2. Identify potential opportunities; and
3. Catalyse emergence of solutions, including businesses, to respond to these opportunities.

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African Chicken Genetic Gains is an Africa-wide collaboration that uses genetics so the continent’s smallholder can get more productive chickens.

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