African Chicken Genetic Gains

A platform for testing, delivering, and continuously improving tropically-adapted chickens for productivity growth in sub-Saharan Africa

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Third ACGG Program Management Team Meeting
Abuja, Nigeria, 28-30 November 2016
African Chicken Genetic Gains
What were/are we doing differently?

ACGG Five Pillars of Change

1. **High-producing genetics** that is well-adapted to low-input production systems;
2. **Farmer preferred breeds** of chickens;
3. **Public-private partnership** for improvement, multiplication, and delivery;
4. **Women** at the center to ensure success; and
5. **Innovation platforms** for developing solutions across the value chain.
• What has been achieved thus far???
Baseline data set is available for partners

Access is created to use the anonymised data

- Tanzania
  
  http://data.ilri.org/portal/dataset/acggtzbaselinepublic

- Ethiopia
  
  http://data.ilri.org/portal/dataset/acggethbaselinepublic

- Nigeria
  
  http://data.ilri.org/portal/dataset/acggngbaselinepublic
Data in the portal

AFRICAN CHICKEN GENETIC GAINS (ACGG) - Tanzania Baseline - Public
The main objectives of the baseline activities are to establish baseline values for key program indicators and to characterize chicken production systems, management practices, etc.

Resources
Tanzania Baseline - Public [CSV, STATA, SPSS, XML, JSON, SQL]

AFRICAN CHICKEN GENETIC GAINS (ACGG) - Ethiopia Baseline - Public
The main objectives of the baseline activities are to establish baseline values for key program indicators and to characterize chicken production systems, management practices, etc.

Resources
Ethiopia Baseline - Public [CSV, STATA, SPSS, XML, JSON, SQL]

AFRICAN CHICKEN GENETIC GAINS (ACGG) - Nigeria Baseline - Public
The main objectives of the baseline activities are to establish baseline values for key program indicators and to characterize chicken production systems, management practices, etc.

Resources
Nigeria Baseline - Public [CSV, STATA, SPSS, XML, JSON, SQL]
On-farm Nigeria: Frequency of HH members on Chicken farm related Activities (Visualization)
Chicken strains being tested in project countries – the options

- Kuroiler
- Koekoek
- Embrapa 051
- Sasso
- Sasso (RIR X Sasso)
- Sasso
- Fayoumi???
- Horro + XX ecotypes in the sites
Importation of fertile eggs and what it takes!
Communication outlets

https://africacgg.net/category/acgg/

https://acgg.wikispaces.com/

https://www.youtube.com/watch?v=I8YO0Liq3lY

RT @evenib: The big bet for chickens in Africa - last post on @ILRI's Clippings blog.
clippings.ilri.org/2016/10/16/the... #ACGG #Africhickengaen

#ACGG #Africhickengaen
Why does Africa import so many chickens?

The African Chicken Genetic Gains project is on a mission to bring "more productive chickens to African smallholders".


http://dw.com/p/1JSjU

The African Chicken Genetic Gains (ACGG) Project has said it is committed to improving productivity and increase profit in smallholder chicken production in sub-Saharan Africa, especially since past efforts had little impact because of the unsuitability of the exotic breeds for scavenging systems.

http://guardian.ng/tag/african-chicken-genetic-gains/

http://www.bbc.co.uk/programmes/p04btcpc
ACGG Project plans on using genetics to help women gain more from chicken


http://allafrica.com/stories/201508061446.html

## Capacity building

### Training Participants

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<th>Training</th>
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<th>Ethiopia</th>
<th>Tanzania</th>
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MOOC - E-learning on Animal breeding and genetics

https://youtu.be/rHxbQLSoLxc
Highlights of Achievements of National IPs

Ethiopian Poultry IP

1. Development of NCD vaccines in small (50 and 100) dose packs
2. Draft manuals for chicken ration formulation developed
3. Policy reviews completed and draft documents availed for policy escalation
Highlights of Achievements of National IPs

1. Poultry Expo and egg week held to provide information for producers about markets

2. Financial institutions ready to work with farmers identified

3. Policy gaps affecting smallholder poultry value chain compiled
Achievements

1. Initiated a national discourse and policy shift in roles of paravets in delivering health services for rural chicken

2. Effectively communicated the importance of SHC VC which resulted in identification of potential business ideas and ventures

3. Initiated conversation about acquisition of market stalls
Proposed: ACGG Long Term Genetic Gains (LTGG) Program

A platform for developing a Long Term Genetic Gains program for tropically-adapted and farmer preferred chickens for sustainable productivity growth in sub-Saharan Africa
Who are the partners of the Long Term Genetic Gains program network?

- Day-to-day management of the genetic gains work;
- Multiply and sell parent stock and GPS to hatcheries;
- Maintain parent stock; and
- Multiply and distribute commercial germplasms to mother units and/or farmers at scale.

- Germplasm testing, data collection, storage and genetic evaluation of lines, feedback and quality assurance.
- Negotiate the IP and access to the preferred strains;
- Design and coordination of the LTGG program;
- Capacity assessment/gap analysis in the private/public sector partners; and
- Develop and lead the implementation of context specific capacity building.

- The platform members (ILRI, CTLGH, WU, NARS etc)
- National Agricultural Research System (NARS)
- Private sector breeding companies in the program countries
- ILRI –Overall coordination of the program

Provide technical backstopping in the design and setting up of the LTGG program-data capture, genetic evaluation, and capacity building.
LTGGs – what has been done to date!

- Private sector companies engaged (Nigeria and Tanzania)
- **National Colloquium on poultry breeding and genetics, Abuja, Nigeria, November 25, 2016**
  - Objective
    - Discuss the lesson learned from past poultry breeding project
    - Discuss data, information and infrastructure requirements for long-term genetic gains of farmer preferred strains through introgression of local germplasm.
ACGG - Benefiting from the recent advances of genomics

\[ \text{Blood and liver sample} = 200, \text{ 12 districts} \]
\[ \text{21 villages} \]

Chicken microbiome project

Caecum content: 2 \( \times \) 200 birds and sub-samples of gizzard, upper intestine, lower intestine content and tissues

Bacteria, parasites, feed in relation to the host genome and environments ....

Consortium – funding
Partners now
more productive chickens for Africa’s smallholders

http://africacgg.net