



African Chicken Genetic Gains

Long term genetic gains implementation plan

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Vision



- Sustainable genetic improvement program can be primary driver for change
- GET the genetics right and it will serve as a systemic pull factor

Workplan



- Evaluate promising indigenous chicken ecotypes
- Design and evaluation of breeding schemes
- Outline path forward for sustainable genetic improvement



Evaluating the chicken strains/ecotypes



Based on the on-field or on-station trials:

- Select about 2 indigenous chicken ecotypes within country
- Select about 2 preferred ecotypes from the imported strains
- Expectations from countries
- Adequate data available on tested strains:
 - On characteristics of economic importance
 - Genetic parameters can be estimated from the data
 - Breeding value estimation

Design and evaluation of breeding schemes



- Primary aim is to maximize genetic gain while controlling the rate of inbreeding
- Breeding schemes will therefore be evaluated (data analyses & simulation)
 - Appropriate effective population size
 - Traits to be selected for to ensure long term sustainability (productivity, survivability, fertility, etc)
 - Optimum contribution to manage rate of inbreeding

Design and evaluation of breeding schemes



- Setting up different lines such as maternal line or paternal lines either in within strains and across strains
 - A cross as the final commercial product
- Collaboration with the Center for Tropical Health and Genetics to benefit from latest genomic and genetic advancements

Outline path forward for sustainable genetic improvement



- Involvement of the Public Private Partnership to own the programme
 - Demonstrate to PPP a sustainable breeding scheme has put in place or is feasible
- Multiplication and distribution by the PPP

Current Status



- A document outlining the long-term genetic gain in detail is being finalized

Getting it right



- Collaboration is crucial
- Important to meet needs of farmers
- Focus on impact: pathway out of poverty



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more productive chickens for
Africa's smallholders

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