



African Chicken Genetic Gains

ACGG – Ethiopia Report

Getnet Assefa – Ethiopian Institute of Agricultural Research

Third ACGG Program Management Team Meeting, Abuja, Nigeria, 2 December 2016

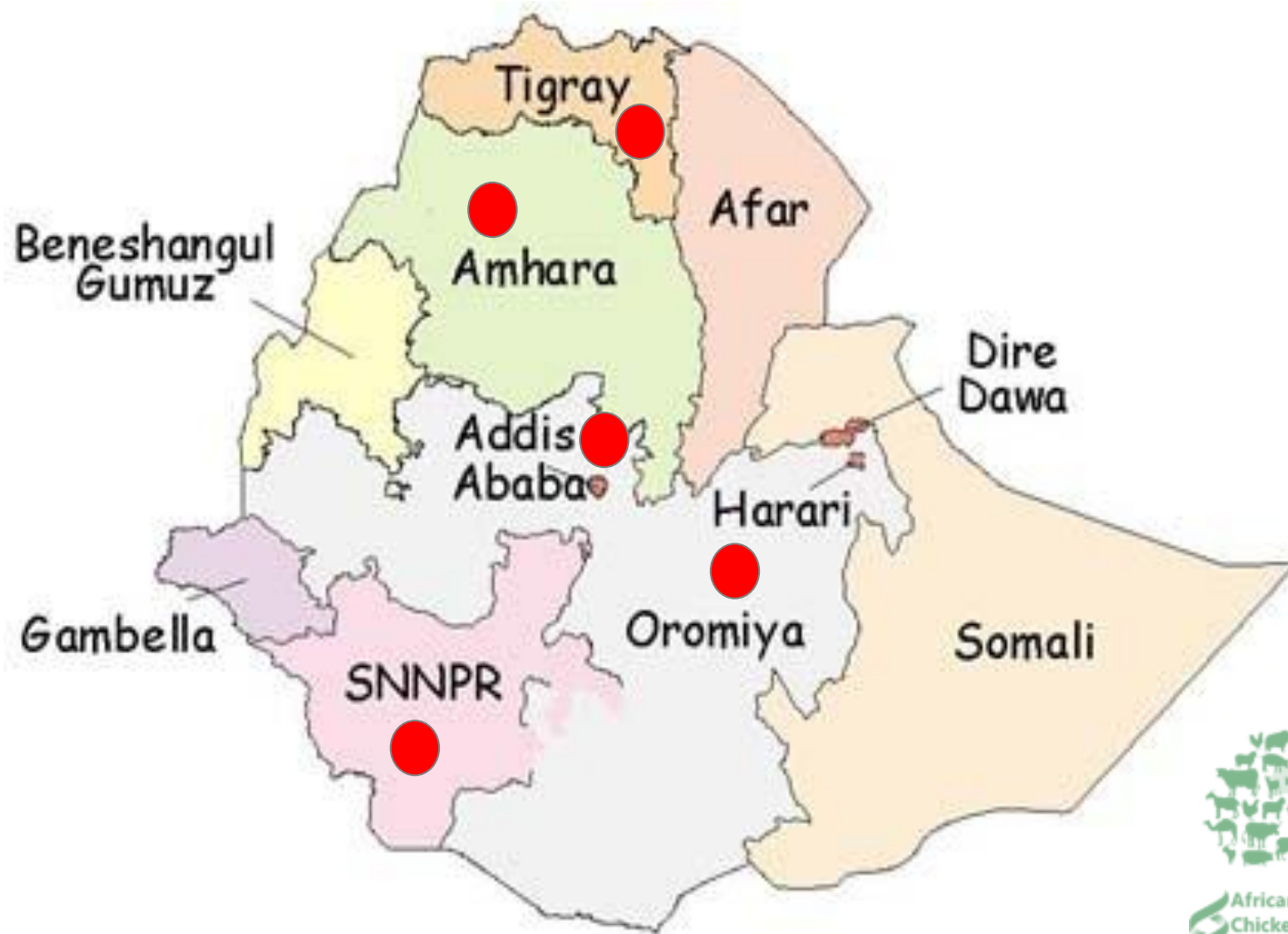
Major Activities of the Project



1. Baseline survey
2. On-farm testing
3. On-station testing
4. Innovation platforms
5. Capacity building



Regions for implementation



Ethiopia ACGG project - Number of districts, villages and households involved



Regions	No of Districts	No of Villages	NO of HH Baseline	No. of HH On-farm
Addis Ababa	2	6	120	240
Amhara	5	15	300	600
Oromia	6	18	360	720
SNNPR	5	15	300	600
Tigray	4	9	180	360
Total	22	63	1260	2520





Summary of Achievements to-date



1. Base Line Survey

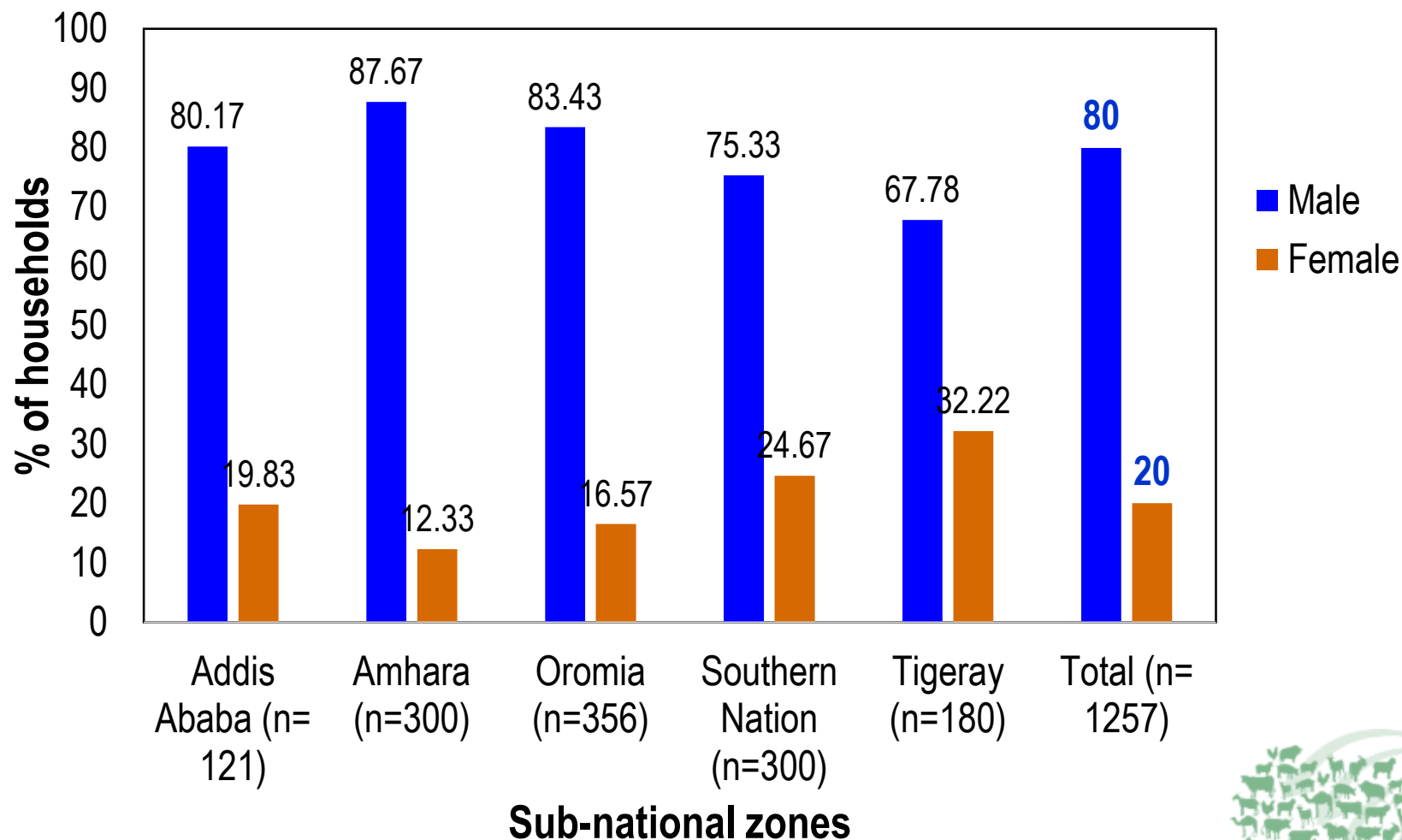


Major outcomes

- Base line data was cleaned and analyzed
- Specific production characteristics identified
- Outputs of the baseline information used as an input to design on-farm testing



Composition of household heads by sex



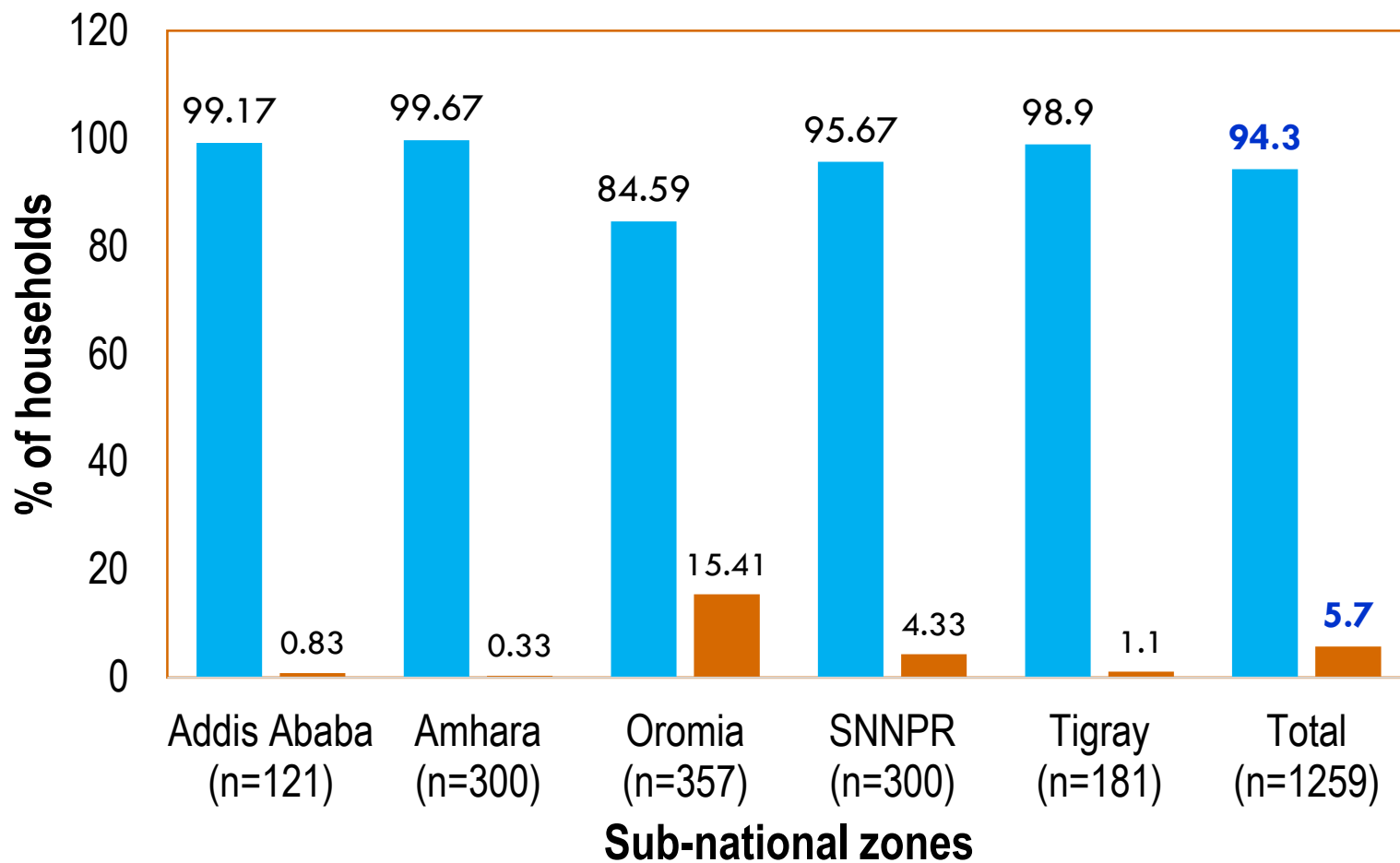
Chicken flock size per household



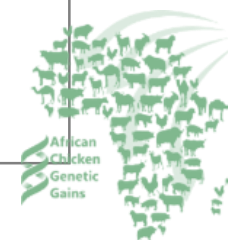
Sub-national zones	Observations (n)	Average number of chicken per households
Addis Ababa	121	6.4
Amhara	300	7.2
Oromia	356	11.8
SNNPR	300	7.0
Tigray	180	10.0
All sub-national	1257	9.0



Practice of supplementary feeding



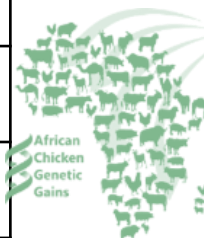
■ Existing practice of giving supplementary feed ■ No practice of giving supplementary feed



Preference traits of chicken breeds / strains by farmers



Reason for Preference	%
Produces high number of eggs	29.8
Large body size & weight – for meat	12.05
Attractive / good physical appearance	10.86
Disease tolerance	8.61
Feed efficient	8.29
Produces chicks with high survival rate	7.44
Produces eggs with harder/thicker shell	7.26
Produces better tasting eggs	6.12
Lives a long time (longevity)	4.21
The meat tastes better	3.13
Good fighter	0.29



2. On-farm test - Achievements



- All participant households / farmers in all regions identified
- Enumerators and supervisors recruited and trained
- Four strains of chicken incubated, hatched, brooded and distributed to the farmers
 - Kuroiler and Sasso – RIR are completed
 - Koekoek and Horro is ongoing
 - Waiting for one additional strain (Sasso, Tanzania)



Chicken breeds being tested in Ethiopia



Kuroiler



Sasso -
RIR



Koekoek



Horro



Fertile egg supplies



Strain	No of batches	source	Country
Kuroiler	3	Chick Masters Limited	Uganda
Sasso-RIR	2	Ethio-chicken Plc	Ethiopia
Koekoek	1	EIAR – Debre Zeit	Ethiopia
Horro	1	EIAR – Debre Zeit	Ethiopia



Egg packaging and transportation



Quality of fertile eggs supplied



Incubation at Debre Zeit



Incubation at Debrezeit



Hatched eggs – day old chicks



Identification of possible causes related to hatchability



Vaccination, weighing and tagging of chicks to dispatch



Dispatching brooded chicks



3. On-station testing - Achievements



Debre Zeit and Haramaya University

- On station experiment performance testing designed
 - Experimental houses maintained / renovated and experiments started
- Four strains of chicken (Kuroiler, Sasso-RIR, Horro and Koekoek) included
 - Data collection going on
 - Sex sorting at the end of 8 weeks done
 - Preliminary information summarized



On-station testing at Haramaye University



On-station testing



Growth performance (g)

		Wk 0	WK 4	WK 7	WK 8
Debre Zeit	Kuroiler	35.8	466.9	935.5	1136.3
	Horro	31.1	230.6	461.3	540.0
	Sasso RIR	33.0	349.6	703.8	829.6
	Koekoek	31.6	262.2	570.3	686.5
Haramya University	Kuroiler	43.8	292.6	762.8	
	Horro	32.6	159.8	372.7	
	Sasso RIR	42.6	212.3	569.2	
	Koekoek	39.2	155.4	426.3	

4. IP Achievements



- Three national level Innovation meetings conducted
- Involvement of stakeholders is improving progressively
- Major challenges of the poultry value chain are identified and prioritized
- Different taskforces established and deliver outputs



IP Achievements



- **Small dose vaccine packages produced**
- **Policy issues along the poultry value chain were reviewed summarized and produced for next steps**

Feed issues / land, tax

health issues (quality control and extension),

Genetics (breeding policy)

Marketing and processing (sub standard products)

Manuals	Feeds	2 (Amharic)
	Health	1 (English)
	Management	1 (Amharic) + 1 (English)
	Hatchery	1 (English)



Participants of the 3rd National IP



Village level Innovation platform meeting



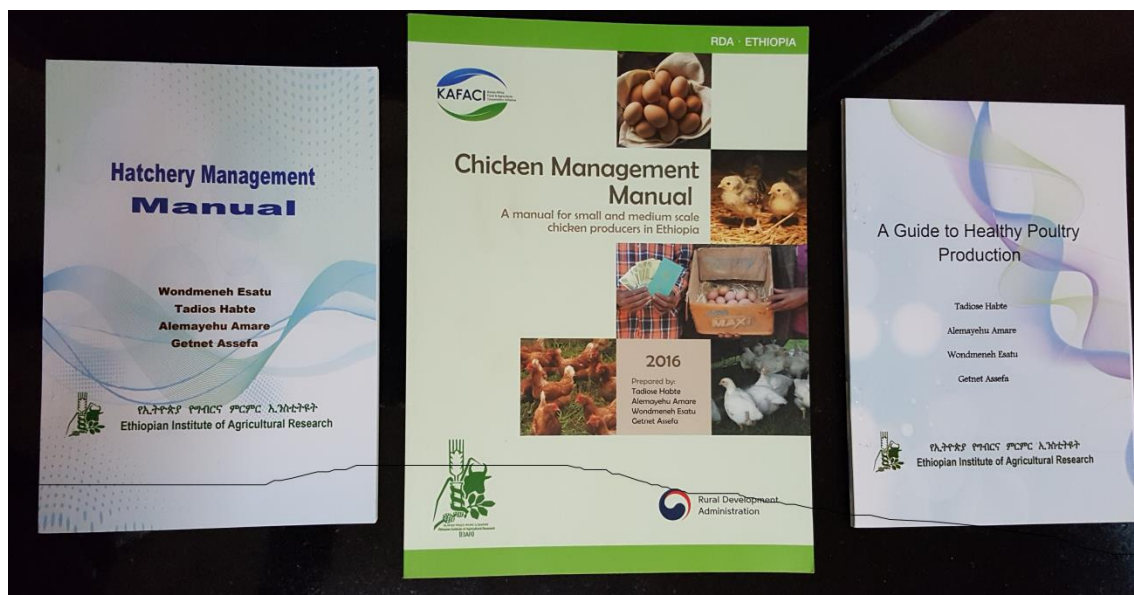


Major issues along the poultry value chain identified

- Making feed available and affordable
- Analysis of policy gaps relevant to poultry
- Marketing
- Training
- Animal health
- Genetics



Published Manuals for Chicken Production



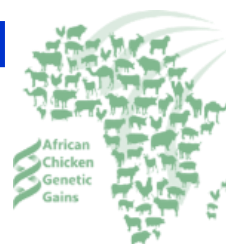


Lessons learnt and challenges

- Weak ownership among members of stakeholders
- Team members located far from each other
- Weak follow up from country and regional team
- Lack of resources or willingness to share resources
- Lack of willingness by most market actors to participate
- looking for immediate benefit by most of private stakeholders

Actions taken

- **Discussions held and some understandings created**
- **Available support on resources being arranged**
- **Planned to engage only those who are willing**



5. Capacity Building



Short term trainings

- **Researchers, enumerators, supervisors, extension agents , farmers and others**
 - Data collection, breeding, statistics, poultry management, hatchery

Long term training

- **5 PhD students – All enrolled**
- **10 MSc students – All enrolled**

Facilities

- **152,000 eggs capacity hatchery (Gov)**
- **Some facilities – feeders, bulbs, etc**



Plan for the next year



1. Baseline Survey

	Activity	Time
1	Data will be further analyzed in detail and interpreted at regional and national level	Feb., 2017
2	Will be presented at the livestock review forum and available for users	May, 2017
3	Will be used as an input for the follow-up future works, like gender aspects	Feb., 2017
4	Students will also be attached to work on it	July, 2017



Plan for the next year



2. On farm testing

	Activity	Time
1	Completing hatching brooding and distributing of the remaining strains	May, 2017
2	Import Sasso fertile eggs from Silverlands, Tanzania	Dec., 2016
3	Continue with data collection and follow ups	According to the experimental plans



Plan for the next year



3. On station testing

	Activity	Time
1	Additional strains will be included	January, 2017
2	Data collection will continue, eg feed intake, growth, egg production, health etc	According to the experimental plan
3	Students will be attached to work on the on station data	February, 2017



Plan for the next year



4. Innovation Platform

	Activity	Time
1	Strong facilitations will be made to Innovation platform taskforces to deliver their taskforce assignments	Dec., 2017
2	Refine and encourage in involvement of appropriate stakeholders for the 4 th IP meeting	March, 2017
3	Village level innovation platform will be strengthened and conducted (capacity building for facilitators will be given)	April., 2017
4	Subnational coordinators will be empowered to actively engaged with the IP and ACGG activities	March, 2017
5	Manuals will be published	March, 2017

Plan for the next year



5. Capacity Building

	Activity	Time
1	Short term trainings will be continued	April –Jul, 2017
2	Concept notes of MSc and PhD students thesis will be evaluated and attached to the different on farm and on station activates of ACGG	Feb - July, 2017
3	Specialized trainings for postgraduate students will be arranged	Aug., 2017
4	New poultry houses at Debre Zeit station will be finalized and will be used for follow up activities (Government)	March, 2017

