



# IMPROVED BACKYARD POULTRY PRODUCTION

FIRST MEETING OF THE MICRO-POULTRY GROUP HARMONY HOTEL, ADDIS ABABA  $2^{\text{ND}}$  NOVEMBER 2016



The AKLDP project undertakes a set of structured learning and coordination activities based on policy and programming issues that have been prioritized with USAID and the Government of Ethiopia. Specifically, the AKLDP provides coordination and technical support to guide improvements in USAID agricultural programming and to support national development policies and strategies—particularly those geared towards assisting poorer households to benefit from agricultural and food security investment.

A key task of the AKLDP is the organization of regular meetings, field visits and information sharing events for collaborative learning groups, whilst ensuring the mainstreaming of these networks within government structures. The Micro-Poultry Group held its launch meeting in November 2016. These proceedings provide summaries of three presentations that were made during the half-day meeting held at the Harmony Hotel and highlights of the key outputs of the group discussions.

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#### Summary of the meeting

#### A. Meeting agenda

Adrian Cullis, AKLDP CoP, welcomed the participants and provided a brief introduction to the role of the AKLDP and the importance of the poultry in the lives and livelihoods of many rural households. A list of the meeting participants is included at Annex 1. Three presentations were then made covering an: Overview of the poultry sector and the Ministry of Livestock and Fisheries' Poultry Working Group; Experience with Improved Backyard Poultry Production in Chronically Food Insecure *woredas*; and Experiences from Haramaya University on Improved Family Poultry. A question and answer session followed the presentations and then a period of time allocated for group discussion on how to further develop the evidence-base of good practice in the poultry sector. A copy of the agenda is at Annex 2.

#### B. Meeting background

From 11<sup>th</sup> to 14<sup>th</sup> July 2016, the AKLDP provided support to the Ministry of Livestock and Fisheries for an action planning meeting to establish a collaborative learning group on poultry production – The Poultry Working Group. The draft action plan for the group was subsequently presented and endorsed at a second meeting held on the 28<sup>th</sup> July. Informed by the participant's inputs, the action plan was finalised. The action plan is included at Annex 3.

One of the first actions undertaken by the group has been the development of a questionnaire for a baseline survey on commercial poultry production in Ethiopia. On 21<sup>st</sup> September eight specialists from the Ethiopian Institute Agricultural Research Institute (EIAR) and MoLF were provided with training at MoLF in order to undertake a technical capacity performance review of commercial poultry farms in Ethiopia. The trainees conducted a pre-test on 23<sup>rd</sup> September before being deployed to the field. On behalf of the group, the AKLDP also prepared a short concept note to organize National Egg Day, 'Egg Matters: an egg a day - an affordable approach to address malnutrition'. This event took place in early October.

The Poultry Working Group will initially address issues related to the commercial poultry sector and the primary purpose therefore of this meeting is to explore the need and opportunities to complement the Poultry Working Group with a Micro-Poultry Group that will focus specifically on household or micro-level production for improved nutrition and as a supplement to household income. This report is a summary of the first meeting of the group with the theme of Improving Backyard Poultry Production.

#### C. Presentations

#### 1. MOLF Poultry Working Group Overview

#### USAID/AKLDP

The first presentation by Dr Bewket Siraw, Senior Livestock Advisor AKLDP provided the participants with an introduction to the sector and an overview of the intended role of the Ministry of Livestock and Fisheries' Poultry Working Group. Dr Bewket's presentation began with an explanation of the GoE vision for the poultry sector, before providing details of how the Poultry Working Group was planning to help the Government achieve the poultry-related targets as outlined in the GTP II.

#### 1. Vision and targets for the poultry sector (LMP/GTPII)

**Vision 2020:** To meet the chicken meat and egg demand of the growing Ethiopian population and produce surplus for export by 2020. This transformation will make a substantial contribution to reducing poverty and malnutrition among rural and urban households.

**Strategy/Approach:** Moving away from the traditional family poultry system (TFP) – scavenging – to the improved family poultry system (IFP) – semi-scavenging – and increasing the number and scale of specialized layer and broiler production (specialized).

**Targets to 2020:** To raise chicken meat production from the current level of 48,900 tones to 164,000 tons (335%) and raise egg production from 161 million to 3.9 billion (928%)  $\sim$  increasing the number of eggs eaten per person per year from 1.6 to 39.

#### Contribution of TFP, IFP and Specialized to the targets

Table 1: Chicken Meat Production (in thousand tones)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	% change
TFP	45.6	41.1	36.9	33.3	29.9	26.9	-41%
IFP	?	?	4.2	5.6	7.6	10.2	251%
Specialized	0.39	25.3	50.7	76.1	101.5	126.8	31,994%
Total	45.4	66.4	91.9	115	139	163.9	235%

Specialized poultry contributes 77.4% of the target, IFP 6.2% and TFP 16.4 %.

Table 2: Chicken Egg Production (in millions)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	% change
TFP	133	119	108	96.8	87.1	78.4	-41%
IFP	?	?	?	494.5	666.5	894.4	246%
Specialized	28	583	1168	1749	2343	2916	10,314%
Total	161	702	1276	2340.3	3096.6	3888.8	828%

Specialized poultry contributes 75% of the target, IFP 23% and TFP 2%.

#### 2. Major interventions planned

#### IFP:

- Introduce exotic /improved semi-scavenging chickens, with far higher genetic potential for both eggs and meat production under scavenging-based systems (establishing grandparent and parent farms in country)
- Promote production and feeding of supplemental concentrates
- Improve health and biosecurity (very critical)

#### **Specialized Poultry:**

- Promote private sector investments to increase the number and size of specialized commercial broiler and layer units.
- Encourage the private sector to invest in poultry agribusinesses especially day old chick (DOC) and pullet production, as well as meat and egg processing
- Ensure sufficient land is allocated and put into poultry feed production (especially maize and soybean).
- Improve health and biosecurity (very critical)

#### **Priority Policy interventions:**

- Rationalizing veterinary services leading to transition to private provision of clinical services wherever feasible and government focusing more on public core activities.
- Special incentives for investors to promote private sector investment (tax holidays, availing enough land at fair prices, credit, training)
- Encouraging local production of edible oil and flour so that by products can be used locally

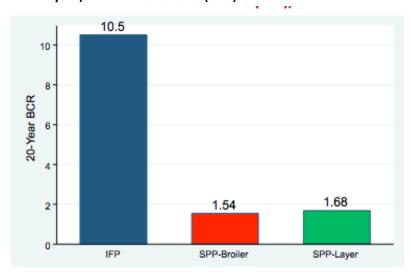
Table 3: Adopting HHs by production Zone

		Number of adopting households		
Interventions	Production Zone	2014/15	2019/20	
	MRS	66,000	228,800	
Improved family poultry with improved semi-	MRD	48,000	166,400	
scavenging chicken or small scale exotics with improved feeding and health services	LG	6,000	20,800	
			416,000	

**Table 4: Investment Requirement** 

Investment interventions	Total inves	Cost in USD in		
	Public	Private	Total	millions
Cow Dairy Development	363	1,010	1,373	69
Red meat/milk and feedlot Development	3,175	319	3,494	175
Poultry Development	416	2,013	2,429	121
Total	3,954	3,342	7,296	365

Fig 1: Impacts of Investments in Improved Family Poultry (IFP), Specialized Poultry (SPP-Broilers and Layers): Benefit Cost Ratio (BCR)



#### 3. The Poultry Working Group

Establishment: June 14<sup>th</sup> 2016

**Composition**: The Poultry Working Group is composed of high-level subject matter experts from the research system, MoLF, development partners and the private sector.

**Objectives**: The objective of the group is to provide guidance/advise on technical and policy aspects of the sector development program in order to assist the Ministry, particularly the directorate for poultry development and the private sector, so as to help achieve the targets set in the GTP II.

**Current focus area:** Currently the focus of the working group is on the specialized poultry because it is the one contributing to 75% of the egg and 77.4% of meat targets and Improved breeds for the IFP are not yet ready.

The Poultry Working Group action plan for 2016/17 is included at Annex 3.

#### Activities accomplished so far

- Developed an action plan
- Surveys on commercial poultry are being carried out
- Celebrated an 'egg a day' event

#### 4. Position of the PWG on supporting IFP

Currently the focus of the group is on specialized poultry as it is the one with the highest contribution to the target, and the improved breeds for the IFP are not yet ready. This does not mean that IFP will not be supported through the working group: it is important for rural HHs nutrition and is also a cost effective way of doing the business in rural setting. The group will start to be engaged as soon as improved breeds are ready. Either this same group will handle the case or a separate working group shall be established – to be decided.

#### 2. Experience with Improved Backyard Poultry Production in Chronically Food Insecure woredas

FHE - USAID/FFP Financed
Development Food Assistance Program (DFAP)

The second presentation by Getahun Shibeshi (Deputy Chief of Party, DFAP FHE) was based on data extracted from reports and simple assessments. The information provided the participants with some useful details on the needs and challenges in promoting poultry with food insecure households. FHE is a Christian Relief and Development Organization. It began operations in Ethiopia in 1985 and has over 30 years of experience. It is currently managing development and relief programs in four regions: Amhara, SNNPR, Oromia, and Benishangul Gumuz. It has over 400 staff.

#### The Development Food Assistance Program (DFAP/PSNP)

The DFAP targets nine *woredas* in three zones: South Gondar Zone (Tach Gayint, Lay Gayint and Simada); North Wollo Zone (Bugna, Lasta and Wadla); and Wag Himira Zone (Dehanna, Gaz Gibla and Sekota). It also stretched to an additional three *woredas* in the third year of the program (Meket, Sahila and Ziquala) for food transfer. In the first year the program targeted a total of 415,029 Chronically Food Insecure beneficiaries, and 83,006 contingency beneficiaries, in nine *woredas*.

#### **DFAP Program Framework**

Goal: Food security status for all members of food insecure households improved

SO1: Health and nutrition of women and children under 5 in the target woredas improved.

- IR 1.1 Maternal and child health and nutritional practices of pregnant women and mothers of children under 2 improved.
- IR 1.2 Access to nutritious foods improved.
- IR 1.3 Access to water and sanitation improved.

SO2: Community resiliency to withstand shocks improved.

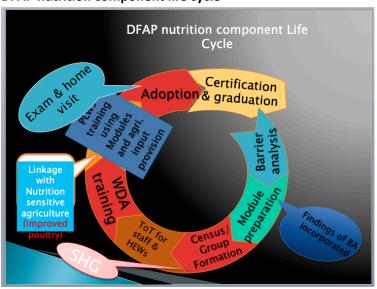
- 1R 2.1 Food gaps bridged.
- IR 2.2 Chronically food insecure households protected from asset depletion.
- IR 2.3 Watershed productivity increased.
- IR 2.4 Access to social services and economic infrastructure improved.
- IR 2.5 Disaster risk management improved.
- IR 2.6 Program management capacity of stakeholders improved.

Cross cutting IR: Community and household gender relations improved.

#### The health and nutrition component

General Overview: The health and nutrition component—through Behavioral Change and Communication (BCC)—is designed to deliver activities in two cohorts over a five-year period. A cascaded Care Group approach is being pursued to bring the essential lessons to the grass roots/community level. A total of 72,102 beneficiary mothers are being targeted (36,051 in the first cohort). 3+ modules on Essential Nutrition Action (ENA) and Maternal Newborn and Child Health (MNCH) have been addressed. Women's Health Development Armies—the replacement to Volunteer Community Health Workers (VCHWs)—are the backbone of the approach.

#### DFAP nutrition component life cycle



#### FHE's experience with backyard poultry production for nutrition

The objective of promoting backyard poultry was to improve the nutritional status of women and children under 5. Beneficiaries were selected based on the following criteria:

- Priority will be given to PSNP beneficiaries;
- Willingness to construct 1.5m<sup>2</sup> poultry cage with fence using local materials;
- Willingness to provide additional feed for the birds;
- Willingness to repay 50% of the loan either in kind or cash to fellow group members.

Training was given on improved poultry production techniques with *woreda* Office of Agriculture staff. Poultry cage construction was checked. Poultry was purchased from certified suppliers in Bahir Dar, Sekota and Kombolcha. The poultry were distributed to each mother, and project staff undertook follow-ups.

Table 5: Number of chicken distributed and mortality rates by year and breed

Breed	Year distributed	Quantity distributed	Mortality	Mortality rate (%age)
Bovan Browns	2012	2700	1132	42
	2013	400	74	19
	2014	2104	60	3
	2015	2600	1066	41
	2016	3740	2244	60
Sub-total		11544	4576	33
Lohmanns	2012	0		
	2013	2843	1562	55
	2014	1860	760	41
	2015			
	2016			

Sub-total		4703	2322	48
Koykoy	2012	-	-	42
	2013	-	-	19
	2014	-	-	29
	2015	1330	465	35
	2016	310	127	41
Sub-total		1640	592	33
<b>Grand Total</b>		17887	7490	42

Fig 2: Graphical Representation of poultry distribution and Mortality

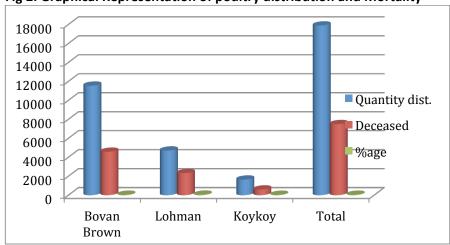


Table 6: Eggs produced, consumed and sold by year and breed

Breed /type	Year distributed	Egg Produced	Consumed	Sold	Money Generated
Bovan Brown	2012	254364	168584	85780	
	2013	34932	18189	16743	
	2014	47966	26113	21853	
Sub-total		373262	212886	124376	217,658
Lohmanns	2012	0	0	0	
	2013	81757	53354	28403	
	2014	64523	43737	20786	
Sub-total		146280	97091	49189	86,081
Grand total		519,542	309,977	173,563	303,739

Beneficiaries	1250			
Average	On average 415 eggs/household /2 years	248 eggs	139 eggs/ households /2 years	243 birr

#### Results

- 1. Mothers witnessed that the nutritional status of their children improved.
- 2. Awareness of the community towards improved poultry breeds improved.
- 3. Income of the households increased.

#### **Key challenges**

- 1. Poultry diseases (mainly viral)
- 2. Poultry management (proper housing and feeding needed)
- 3. Inadequate livestock health service provision
- 4. Snake bites
- 5. Amhara Livestock Agency standard (23 poultry to one HH versus the program's 6 poultry for one household)
- 6. Chronically Food Insecure beneficiaries versus requirement of improved poultry (feed and housing)

#### **Lessons Learnt**

- 1. Backyard poultry production is beneficial to enhance the nutritional status of children and mothers.
- 2. It seems to be more difficult to promote the activity with Chronically Food Insecure Households.

#### Recommendation

Conduct joint research to identify the gaps in improved backyard poultry production in Chronically Food Insecure *woredas* and design a strategy.

#### 3. Experiences from Haramaya University on Improved Family Poultry

#### By Dr Negassi Ameha

The third presentation from Negassi Ameha focused on the experiences with community poultry initiatives at Haramaya University. The poultry farm has been established at Haramaya University (HU) since the inception of the Imperial College of Mechanical Arts and Agriculture by Oklahoma State University in 1960. The HU mandate covers teaching, research and community engagement.

Under the Vice President For Community Engagement and Institutional Development activities cover:

Community Development works
Institutional Development
Community Based Education
Haramaya Lake Watershed Management

The specific community related activities on poultry production include:

- Poultry management technical training for youth associations
- Distributing improved poultry breeds to the surrounding community
- Distributing movable poultry houses
- Training in poultry feed preparation
- Material support like medicine, feed, watering and feeding equipment

Within these activities, HU organizes and provides training on animal management—specifically for Improved Poultry Production—on an individual family basis, with cooperatives and with targeted Women and Youth Associations. These activities are also conducted in collaboration with small-scale enterprises, development agents and *Kebele* officials.

The major constraints faced by the program include:

- Inability to cover a large area
- Financial constraints and training of personnel constraints
- Inability to pay for inputs
- Beneficiary selection problems



Management of improved chickens on a family basis



Organized youth associations managing improved chickens



Trained women managing improved chickens

#### D. Q&A session on presentations

#### Questions on Presentation 1 – MOLF Poultry Working Group

1. How can we tackle crosscutting policy issues, like access to land, by raising commodity specific land related matters for agriculture sector investment – rather than value chain by value chain – as this is a common challenge for all value chains?

The Government's understanding on investment for commercial poultry enterprises is that the actual area of land to support investment is small — although supported by high quality and extensive bio-security measures. For these reasons, land-related investment issues for the poultry sector should continue to be dealt with under existing policy frameworks. For feed maize (50% of the feed mix) there is already adequate land in production. For feed soya (30-40% of the feed mix), more land needs to be allocated in particular in western Ethiopia where the soil/ climate is suitable for soya production. The need for additional soya planting has been brought to the attention of policy makers.

- 2. How is gender issue being dealt with in the Poultry Sector?

  Gender is addressed in the Livestock Master Plan, which includes the poultry sector. The poultry sector will therefore take the lead for matters related to gender from the Master Plan.
- 3. How useful are the different studies and research that is carried out on poultry?

  A great deal of useful research has been done, but it is poorly coordinated and little of it has filtered into the production system. Much more needs to be done to coordinate research in the poultry sector in order that it informs and influences practice. For example, the work on improved genetics needs to be much better coordinated and also to incorporate research findings from the past. Good efforts are however being made on the development of indigenous poultry breeds that will be suitable for local agro-ecologies it is hoped that some of these breeds will be released by the end of the year. Though we need to have the right genetics in place, it is important to note however that genetics alone will not solve all the problems more integrated research is also needed in housing, feed and health.
- 4. Who are the members of the PWG and why are Universities were not considered in the working group? The PWG comprises recognized specialists in the Poultry Sector rather than representatives of specific institutions. It is planned to expand the group over time.
- 5. What are the objectives of the PWG?

To create a platform for stakeholders in the Poultry Sector to support the government to achieve the poultry sector targets outlined in the Livestock Master Plan and GTPII.

6. What are the challenges around marketing?

The PWG has not yet looked at marketing related issues but will at some point in the future.

# Questions on Presentation 2 – Experience with Improved Backyard Poultry Production in Chronically Food Insecure *woredas*

Comments: I think it was wrong to give away hybrids – 1 cockerel and 5 pullets – and expect them to reproduce, as recessive genes will be expressed in the next generation. It would have been better to give away just pullets that produce eggs. The project location is in a dry area where farmers face recurrent

drought and food shortages and therefore there are few opportunities for year-round scavenging. Providing beneficiaries with only 50% of the feed requires therefore that they purchase the balance and as many of these households are very poor this might not be possible. It would have been better to distribute more local and scavenging breeds that consume less feed.

1. How did you measure the improvement in nutritional status of the beneficiaries when so few eggs were produced in the five-year period?

The improvement of the nutritional status of the beneficiaries is also the result of other interventions – distribution of food for instance.

2. What was done to ensure that the chickens remained healthy, in terms of animal health? The chickens were bought vaccinated. However, no other vaccinations were made after that.

#### Questions on Presentation 3 – Experiences from Haramaya University on Improved Family Poultry

1. What was included in the intervention package?

The intervention package included 100 birds and training on housing and feed.

2. What is the survival rate of the chickens?

At present – the project is only 3 months old - almost 99% survival rate.

3. How do you define success regarding your intervention?

Success is defined by a number of parameters – household income and household nutrition and transformed livelihoods.

#### E. Group Discussion on Possible Next Steps

The group discussed and approved the following next steps:

- ⇒ Establish a Micro-Poultry Group in order to share good practice around key success factors
- ⇒ To support 3 or 4 small research studies that will help establish an evidence-base of good practices with poorer and very poor wealth groups. One might be around genetics/ breed selection, another around feed, another around housing and again another around health. It might be useful to compare and contract good practice in different regions
- ⇒ Organize the next meeting in January 2017 and include presentations by:
  - o CARE/ Grad on agro-dealers
  - o Newcastle disease prevention
  - Poultry housing
  - o An overview of what has been achieved in small-scale poultry production

#### **Annexes**

## Annex 1. Participants List

No	Name	Project/Organization	Email
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## Annex 2. Meeting Agenda









# INTRODUCTORY MEETING TO IMPROVED BACKYARD POULTRY

	Harmony Hotel – 2 <sup>nd</sup> November, 2016 AGENDA	
TIME	SESSION	LEAD
14:00	Welcome	
14:05	Introduction	
14:15	Project presentations on improxed backyard poultry:	
	<ul> <li>Presentation 1: Overview of the Mol.E Paultry Working Group</li> </ul>	Dr. Bewket - USAID/AKLDP
	Presentation 2 : EHE's Experience on Backyard Poultry Production for Nutrition	Dr. Getinet Shiheshi - Food for the Hungry Ethiopia by
	Presentation 3 : Haramaya University's Experience on Improved Family Poultry	Dr. Negassi Amaba - Haramaya University
	Presentation 4:	
15:30	Tea break	
15:50	Plenary, discussion : success and challenges	
16:30	Next steps.	

15:30	Teabreak
15:50	Plenary, discussion: success, and challenges
16:30	Next steps.
16 :45	Concluding remarks
16:55	Departure