Report On

Six National Innovation Platform Convening

Under project

Asian Chicken Genetic Gains (AsCGG):

Thursday, 21st November 2024

Time: 14:00-16:30

Reported by LDC Team

Contents

1. Introduction

Asian Chicken Genetic Gains (AsCGG) project is 5 years project which are implementing in Cambodia, Myanmar, and Vietnam. The project is led by the International Livestock Research Institute (ILRI) with partnership with National of Animal Health and Production Research Institution (NAHPRI) under General Directorate of Animal Health and Production (GDAHP) and Livestock Development for Community Livelihood Organization (LDC) in Cambodia. The aims of the project are to contribute and improved smallholder chicken systems through adapting new and proven genetic technologies and approaches that increase farmer access to locally acceptable and adapted. It also provides a platform for south – south learnings through the African Chicken Genetic Gains (ACGG) initiative implemented since 2014 in Ethiopia, Nigeria, and Tanzania. In addition to government research departments, the project envisages working with a small number of NGOs, partner with private poultry genetics companies to help develop a roadmap for a longer-term chicken genetic gains programmes in each country. There are eight national innovative platform (two national platform convenings per year) over the project lifetime (4 years project). The national innovation platform established with a primary goal of mobilizing public and private sector engagement in the smallholder chicken value chain

2. Objective

- Progress of AsCGG project
- Summary of egg production and chick growth (G0 and G1 generations)
- Important activities should be considered on breeding program
- Plenary Discussion – What are the potential solutions and approaches to addressing the challenges.

3. Participants

There were 98 (woman: 26) participants from different actors involve in chicken value chain in four provinces (Takeo, Kampot, Kampong Speu, and Kampong Chhnang). The key actors attended this meeting were national animal health and production research institute (NAHPRI) under general directorate of animal health and production (GDAHP), livestock development for community livelihood organization (LDC), the provincial office of animal health and production (POAHP), a representative from ILRI based in east and southeast Asia and Nairobi, the Royal University of Agriculture (RUA), Internation and local NGO, private companies, VAHWS, Chicken raising group, chicken producers, traders, medicine supplier, and feed suppliers, etc.

No	Stakeholder	Sex		Total
		M	F	
1	ILRI	3		3
2	NAHPRI	2	1	3
3	International and local NGOs	4	1	5
4	RUA	2		2
5	Private Company	2		2
6	Farm Breeding	3	1	4
7	Officer & VAHWs	18	5	23
8	Chicken Producer	18	10	28
9	Live Chicken Trader and butcher	10	5	15
10	Animal feed seller	10	3	13

4. Meeting method

The 6th National Innovation Platform Convening was organized as a hybrid meeting via the zoom link in which the provincial office was the host for participants from their province while other participants from different institutions were attended by zoom link created by ILRI based in east and southeast Asia.

5. Process and result of the meeting

5.1. Session 1: Welcome and Scene-setting

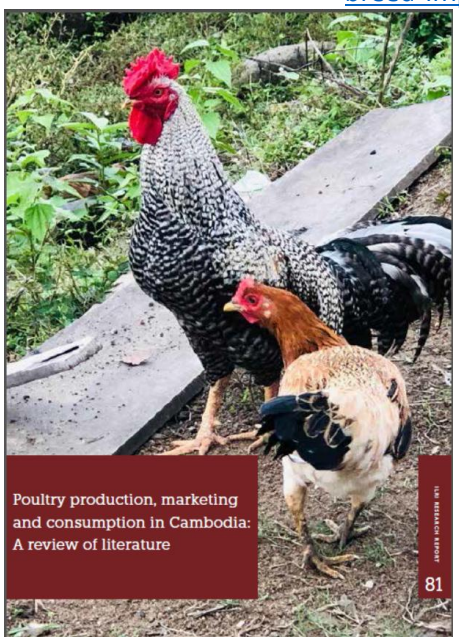
- Mr. Hoa Hoang Hai, ILRI Research Project Coordinator based in Regional Office for East and Southeast Asia: He is grateful thank to Cambodia partners and nucleus farms to joint activities and make the project successful. The midterm review led by Dr Anna Okello, research program manager and her teams' members are very happy with our project outcome and happy to extend our project to May 2025 and second phase from 2025 to 2029.
- **Dr. Tadelle Dessie** is AsCGG project leader has given speak remark and welcome to all participants in this meeting. It was great pleasure and enthusiasm to welcome everyone in this meeting. He is also grateful and thanked to all participants, project teams and nucleus farms to successful for the project and continue work with you all especially nucleus farm and extent to our target province for phase 2.
- Mr. Phem Menghak: He is representative of Dr Tum Sothyra, director of NAHPRI as he has urgent meeting with minister of agriculture, Mr Menghak is thank to all participants from oversea and from four target provinces that take the value time to join in the meeting and he is happy to share the project of the project relate to chick performance and eggs production from hen.

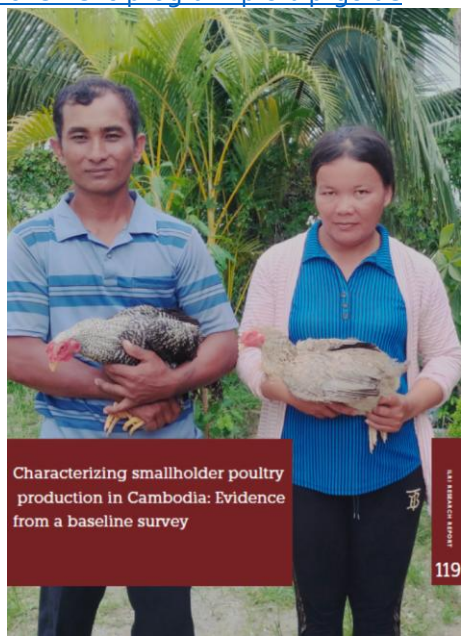
5.2. Session 2: Project progress

5.2.1. Project progress by Dr. Chhay Ty

- ***Objective of 6th NIP***
  - Project progress since beginning until now
  - Share the data of chick performance and eggs production from G0 and G1
  - The challenging on breeding program especially chick, hen and management
- ***The three cardinal aims of project outcomes***
  - Employment Creation
  - Wealth Creation
  - Poverty Reduction
- ***Project activities updated***
  - Poultry production, marketing and consumption in Cambodia: A review of literature https://www.ilri.org/knowledge/publications/poultry-production-marketing-and-consumption-cambodia-review-literature
  - Baseline survey on Characterizing rural smallholder poultry production in Cambodia. https://www.ilri.org/knowledge/publications/characterizing-smallholder-poultry-production-cambodia-evidence-baseline

- Guideline for setting up and management of Participatory Indigenous Chicken Breeding Improvement Program (PICBIP) produced. https://www.ilri.org/knowledge/publications/participatory-indigenous-chicken-breed-improvement-program-pic-bip-guide





Participatory Indigenous Chicken Breed Improvement Program (PIC-BIP): A guide to setting up and managing an open nucleus breeding program supported by artificial insemination using Skoeuy chicken of Cambodia

- Monograph study on Cambodian native chicken breed diversity from 10 provinces representing different Cambodian regions. The activities have been done and the paper will be published soon in ILRI website.
- PICBIP started in Tram Kak, Takeo province by June 2023: 3 Nucleus farms identified to participate in the Skouy breed improving program.
- Farmer Training on AI, Parent Stock management, Data collection
- National Capacity Building: 5 NIP + 3 CIP
- PICBIP's Go growth performance results from 0-16 weeks.
- PICBIP's Go Skouy parent stock selection for cage laying hen and AI system from W18 (1:8 Ratio) to W52
- PICBIP's G1 growth performance from 0- 16 weeks.

5.2.2. Chick performance and egg production by Mr. Phem Menghak

- ***Objectives***
  - Employment Creation
  - Wealth Creation
  - Poverty Reduction
  - Enhanced nutrition

- ***Importance of native chicken***
  - Household income generation
  - Good market demand and triple cost higher than commercial line
  - Ritual culture representing
  - Well-adapt to harsh environment
  - Developed free-antibiotic production

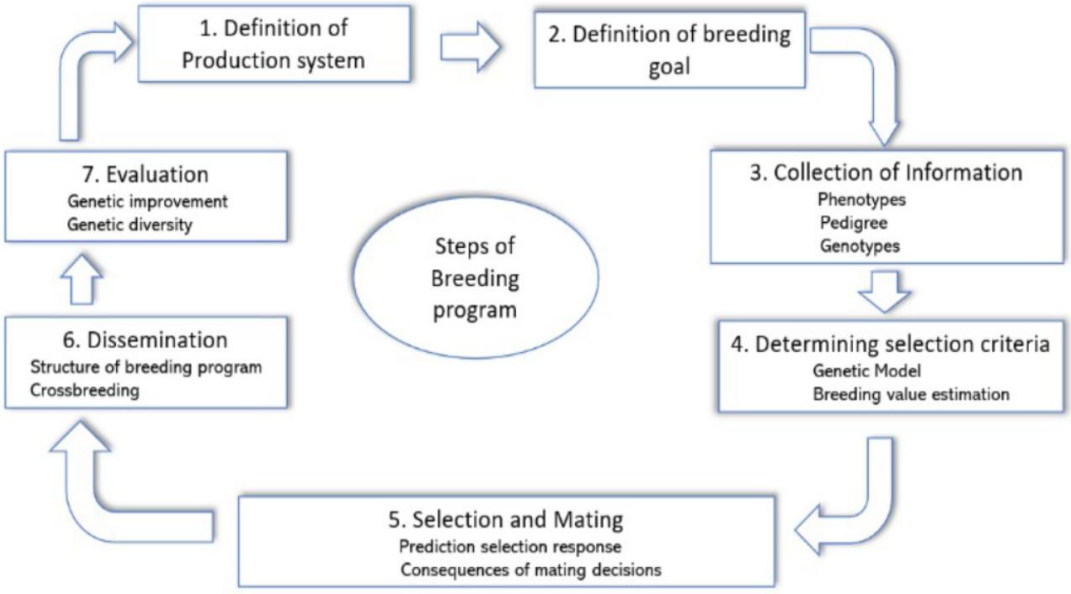
- Subsidy source of income and protein sources for the majority of Cambodia's rice-production farmers.

- ***Production Gap of native chicken***
  - Cambodia has zero score in all aspects of animal genetic resources program Seng M. (2012), selection is not yet practices and random mating is common Nishibori et al. (2006).
  - In free-range system, the native chicken has low productivity, and high mortality rate due to lack of proper feeding regime and a spread of diseases (Siek et al., 2016)
  - However, Local consumers more prefer local chicken than commercial lines, and there is a need to intensify the native chicken breed into commercial scale for growing local demand.

- ***Mechanisms for Breed Improvement***
  - Animal Migration
  - Cross-breeding
  - Genome Editing
  - Breeding selection

- ***PIC-BIP: What is PIC-BIP?***
  - Animal breed development programs implemented by farmers
  - Farmers participate in setting breeding goals, selecting breeding stock, recording data, evaluating breeds, working with researchers, marketing and distributing animal breeds.
  - The program aims to develop egg production, breeder management, and 100% farmer-owned research participation.
  - Animal breeders must preserve good animal breeds forever.
  - Farmers who purchase chicken seeds from breeders also have a role in maintaining the breed, evaluating it, and providing feedback to breeders.

- ***Cycles of PICBIP***
  - Definition of production system
  - Definition of breeding goal
  - Collection of information (Phenotypes, Pedigree, and Genotypes)
  - Determining selection criteria (Genetic model, and Breeding value estimation)
  - Selection and Marting (prediction selection response, and Consequences of mating decisions)
  - Dissemination (Structure of breeding program Crossbreeding).
  - Evaluation (Genetic improvement, and Genetic diversity)



- ***PICBIP: Defining selection criteria for Skuoy***
  - Farmer's preferences on Skuoy Characteristics

Trails	Characters
Mature Chicken	Black & white barred/red stripes (Bicolor)
Shank color	Yellow
Egg color	White
Comb type	Pea/strawberry
Feather cover	Fully covered
Market age	3.5 months
Market weight	1.5 kg in males /1.25 kg in females
Shank length	10-12 cm in males/10 cm in females

- ***PICBIP: Farmer training***
  - Parent stock
  - Artificial Insemination on hen
  - Farm Bio-security
  - Data recording on Nucleus farm



- ***PIC-BIP: Individual BW recording at W16***
  - Referenced flock done
  - 1st Generation (next 2week done)



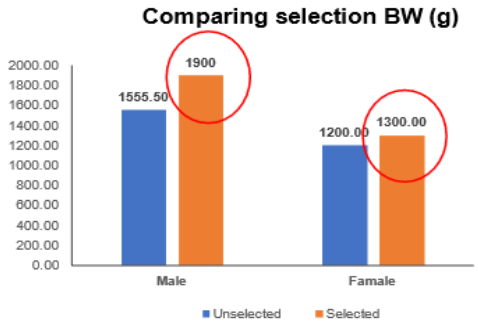
- ***PICBIP: Growth Performance data***

V-PICBIP: Growth Performance Data

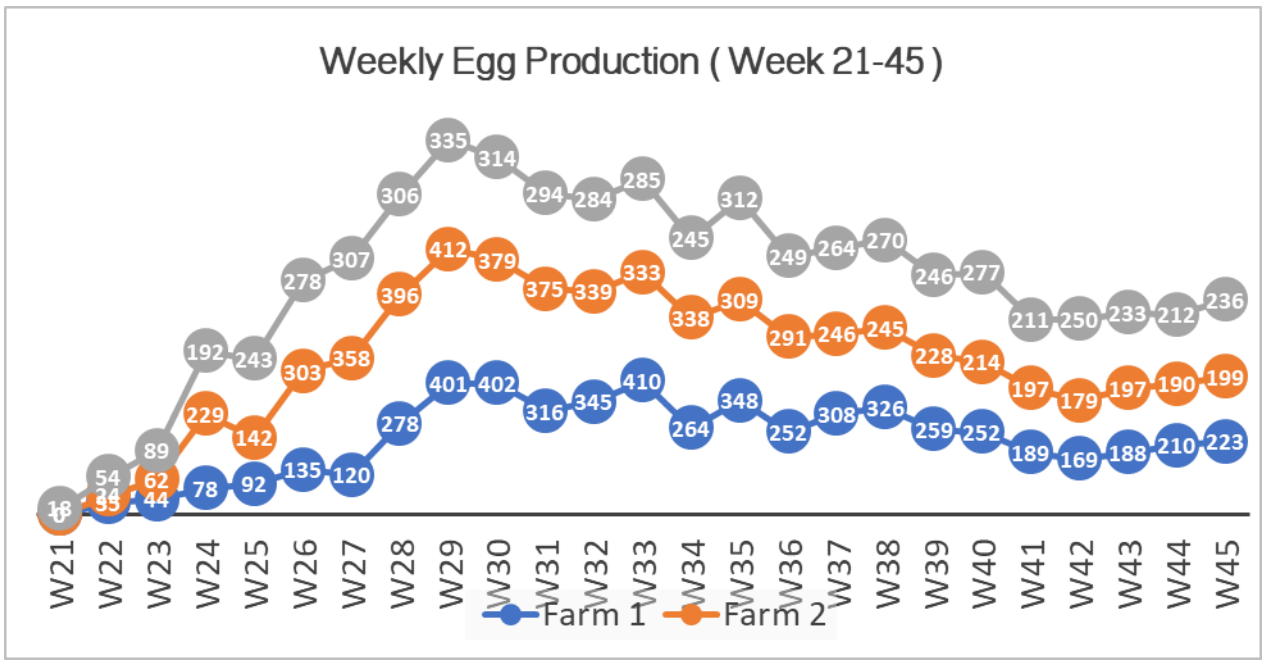
	W0	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	Sold out	Loss	Total Alive	Mortality	
Farm 1	**1002**	1002	1000	997	982	973	970	966	962	960	955	952	951	944	942	936	**815**	95	10	**920**	**82**	**8.18**
Farm 2	**1002**	987	987	971	971	965	957	949	947	941	938	933	932	932	929	924	**913**	0	11	**924**	**78**	**7.78**
Farm 3	**1000**	1000	997	993	989	985	979	964	952	937	930	912	908	905	900	896	**803**	30	65	**898**	**102**	**10.20**

	Farm 1		Farm 2		Farm 3	
	Male	Female	Male	Female	Male	Female
Number (head)	371	444	500	413	344	459
Number (%)	**45.52**	**54.48**	**54.76**	**45.24**	**42.84**	**57.16**
Average (g)	**1564.66**	**1179.95**	**1719.70**	**1291.86**	**1382.12**	**1085.95**
Max (g)	2400	1800	2700	1800	2750	1800
Min (g)	750	600	1000	650	700	600
Std (g)	247.52	194.37	277.91	196.30	334.30	233.08

	Male chicken				
	Farm 1	Farm 2	Farm 3	Average	Selection Interval (%)
Unselected (g)	1564.66	1719.70	1382.12	1555.50	18.13
Selected (g)	1732.00	1996.67	1953.13	1900.00	
	Female chicken				
Unselected	1179.95	1291.86	1085.95	1185.92	8.05
Selected	1217.02	1381.31	1271.00	1289.78	



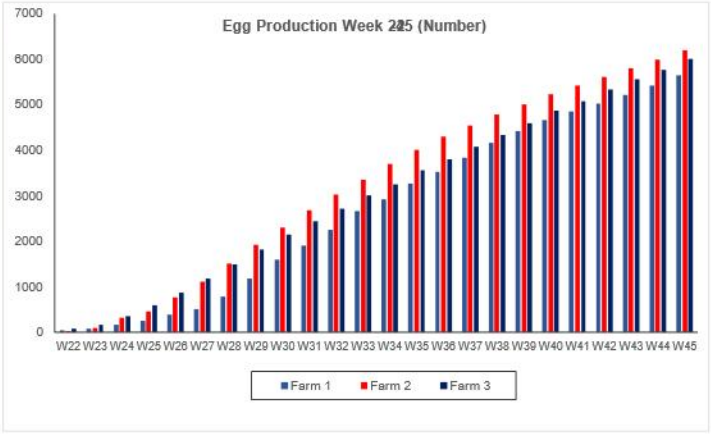
- ***PICBIP: Egg Production Data***



- ***PICBIP: Egg Production Data (cont')***

V-PICBIP: Egg Production Data (cont')

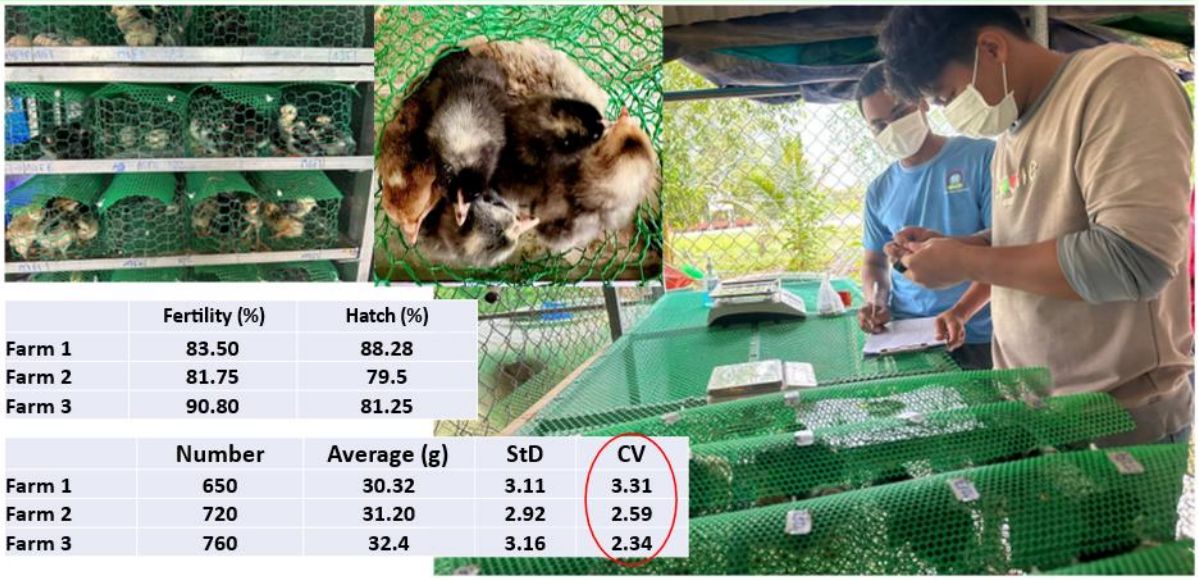
	Farm 1	Farm 2	Farm 3	Average
Total egg production	5644	6185	6004	5944.33
Average Hen Day (%)	38.29	39.31	34.71	37.43
Total egg/hen house	61.35	62.47	60.04	61.29
Hen mortality rate (%)	13.04	11.11	4	9.38



	Farm 1	Farm 2	Farm 3	Average	Selection Interval (%)
Unselected	60.5	62.5	60	61	21.56
Selected	76	81	76.3	77.77	

- ***PICBIP: Incubation and Hatchability Data***

V-PICBIP: Incubation and Hatchability Data

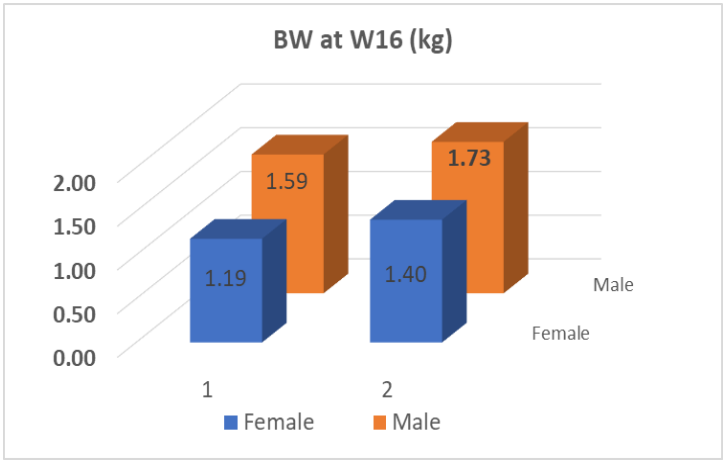


	Fertility (%)	Hatch (%)
Farm 1	83.50	88.28
Farm 2	81.75	79.5
Farm 3	90.80	81.25

	Number	Average (g)	StD	CV
Farm 1	650	30.32	3.11	3.31
Farm 2	720	31.20	2.92	2.59
Farm 3	760	32.4	3.16	2.34

- ***PICBIP: BW at W16 (Go vs G1)***

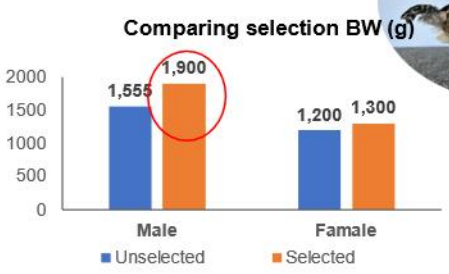
	Farm 1		Farm 2		Farm 3			
	Go	G1	Go	G1	Go	G1	Go	G1
Average	1.18	1.46	1.29	1.37	1.09	1.38	1.19	1.40
Max	1.8	1.80	1.8	1.80	1.8	2.75	1.80	2.12
Min	0.6	0.90	0.65	1.00	0.6	0.7	0.62	0.87
Std	0.21	0.13	0.20	0.15	0.23	0.14	0.21	0.14
Male								
Average	1.56	1.68	1.72	1.85	1.48	1.67	1.59	1.73
Max	2.4	2.40	2.6	2.60	1.8	2	2.27	2.33
Min	0.75	1.30	1	1.00	0.8	1.2	0.85	1.17
Std	0.25	0.20	0.28	0.18	0.33	0.16	0.28	0.18



- ***PICBIP: Income Generation***
  - 3 Nucleus farmers producer Skouy Chickens
  - Sell chicks and adult chickens to participatory farmers in their communities/cooperative

V- PICBIP: Income Generation

3 Nucleus farmers produce Skouy Chicks



Sell chicks and adult chicken to participatory farmers in their communities/cooperative

- *VI-Market fluctuation of native chicken*

VI-Market fluctuation of CNC

Live adult chicken market trend

Feb*	Mar	Apr*	May	Jun	Jul	Aug*	Sep	Oct	Nov	Dec	Jan
High				Low				Medium			
*chinese celebration		High mortality rate				High mortality rate					

Egg production rate and market trend

Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Low			Normal		Low			Normal			
Drought					High rain fall						
							High demand of chicks				

Rice cultivation and income generation

Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
			Rice cultivation				Rice Harvesting				
			No income					Have income			

PIC-BIP chicken

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
W16-21	W22-25	W26-29	W30-33	W34-37	W38-41	W42-45						
	Produce chicks > Sell to participatory farmers						Chicks for next Gen	Remove parent stock				

- ***Constraints on native chicken***
  - Live adult sale and encounter sale problem even the market demand still
  - Compete with low-cost imported local chicken from Thailand and Vietnam
  - Compete with supply season of free-range chicken and fish
  - Layer hen is preferable by central market wants due to meet with fat deposit

- Unwanted male chicken at the market, male shares 50% of the flock
- High expenses for feed cost mainly for >50 adult chicken farm
- Not proper housing and feeding, may encounter feather problem
- Biosecurity and disease occurrence problem
- Labor intensive in Nucleus farm
- External harm; global economic issue

- ***HPAI Positive case***
  - On the 3rd September Culling of sick chicken - 207 heads of 2-3month chick culled (Unselected flock)
  - AI Vaccination for Skouy 84 heads of Parent stock, and 689 heads of chick 2-7week age
- ***Priority for next step***
  - Molecular selection for Growth, FCR, High Egg production, Heat stress tolerance, removal of slow-feather gene.
  - Forming farmer group for improving production planning, processing and market linkage.
  - Strengthening 3 nucleus farmers performance, farm biosecurity, based on their current capacity, resources and challenges
  - Test GxE interaction of selected Skouy and Referenced flock (site based on Scoping visit)
  - Poultry Nutrition Study/Experiment
  - Improve male chicken marketing; eg. male chicken should go processing and meat cuts etc.
  - Recommend proper house space and nutrient to improve feather development during high temperature period
  - Strengthening biosecurity at Nucleus farms by providing proper facilities and routine practices, mainly applied for visitors

5.2.3. Important point to be consideration by Dr. Wondmeneh

- Emerging issues regarding the ongoing Skouy breed improvement program
- Brief description of the alternative chicken breed improvement programs in six countries such as Ethiopia, Nigeria, Tanzania, Kenya, Cambodia and Viet Nam.
- Commitment and continuous interest in the breeding program by participatory farmers
- Interest to make income by selling requires multiplication flock.
- The chance of selling improved chicken/negative selection
- Emerging preferences:
  - body weight after improvement
- Disease outbreak/pandemic
  - A need to follow up and strict biosecurity control Hoa's expertise
  - The need for a backup flock in Kampong Chhnang/ additional work
- Acceptability of the breed while losing its feathers:
  - Adaptation to environment is very important, but chickens such as Horasi do not do
  - Evolutionary adaptations vs Local adaptations needs to be investigated
  - Live chicken sale can be affected
  - Additional study in relation to Menghak PhD

- New traits into the breeding program:
  - Feed efficiency Ty's support
  - Apply ILRI-Feed App to consider non-conventional feeds resources available
- Complementing new technologies:
  - Genomic tools to better understand the breed
  - Use the technique to improve the breeding program
- Data management:
  - Use a centralized data management system
  - Better control and use of pedigreed data in the future

5.3. Session 3: Discussion

- Chickens are overweight
- Disease
- Featherless chicken
- Expensive food

Overweight	Diseases	Featherless	Expensive feed
- Weight is not an issue. If the market likes it, farmers should adjust according to the market (1.3-1.5 kg).	- Implement biosecurity measures at the farm and vaccinate against important diseases.	- Selling ready-made chicken	- Farmers should be advised to use industrial feed for chicks under 21 days old. - Raising free-range chickens reduces feed, but faces disease risks
- the market demand for chickens is between 1.3 kg and 1.5 kg, so farmers should sell quickly to make a profit.	- Increase biosecurity and other risk factors, such as not buying chickens or other birds to raise or eat.	- Another point for featherless chickens is that we should add extra vitamins to their water or feed when they are young, or use high-vitamin yellow and green feed.	- Use a feed formula that is correctly calculated and has a clear level of protein, energy, minerals, and amino acids according to the age of the chicken. In particular, the raw materials used should be locally available, so as to reduce production costs.

5.4. Session 4: Next steps and closure

- Kampong speu province
  - There should be shared the results of breeding using natural breeding
  - Economic analysis using existing data
- Kampot province
  - Want to conduct artificial insemination in all target provinces (4 provinces)
  - Wants 3 nucleus farms to share experience on artificially insemination
- Kampong Chhnang province
  - Brief the results from breeding program and simple's ways to each target province.

Appendix 1: Agenda

Time	Agenda Item
14:00-14:30	Session 1: Welcome and Scene-setting (30 mins) ➢ Opening Remarks – *Dr.* Fred/Mr. Hoa, *IRIL (10 mins)* ➢ Opening Remarks – *Dr.* Tadelle /Dr. Wondemeth,ILRI*(10 mins)* ➢ Opening Remarks – *Dr.* Tum Sothyra, NAHPRI *(10 mins)*
14:30-15:30	Session 2: Project progress, egg production, and chick growth *6. Project Progress – Dr. Chhay Ty (10 mins)* *7. Summary of egg production and chick growth (Fo and F1 generations) Mr. Phem Menghak (15 mins)* *8. Important point to be consideration by Dr. Wondmeneh (15 mins)*
15:30-15:50	Session 3: *Discussion* *9. Plenary Discussion – What are the potential solutions and approaches to addressing the challenges raised above? – Dr. Wondmeneh (20 mins)*
15:50-16:00	Session 4: Next steps and closure ➢ *Summary of the meeting results and plans for the 7th IP meeting– Dr. Chhay Ty (5 mins)* ➢ *Closing Remarks –Dr Sothyra Tum, NAHPRI (5 mins)*

Appendix 2: Attendant list

No	Name	Sex	Position
International Livestock Research Institute (ILRI)			
1	Dr. Wondmeneh Esatu	M	Scientist - Livestock Genetics
2	Dr. Talelle dessia	M	PI and Project Leader, Nairobi, Kenya
3	Dr. Hao Hoang-Hai	M	Research Project Coordinator, ILRI
General Directorate of Animal Health and Production (GDAHP)			
National Animal Health and Production Research Institute (NAHPRI)			
4	Dr. Bun Chann	M	Vice-Director
5	Dr. Ren Theary	F	Vice-Director
6	Mr. Phem Menghak	M	Officer and PhD student
Royal University of Agriculture (RUA)			
7	Mr. Prak Kea	M	Vice Dean of Animal Science Faculty
8	Mr. Hun Hiek	M	Vice Dean of Animal Science Faculty
Kampot Provincial Office of Animal Production and Health (POAPH)			
9	Mr. Meng Santepheap	M	Head office
10	Mr. Chey Phalla	M	Vice Head
11	Mr. But Bunmakara	M	Officer
12	Mr. Doung Sarith	M	Officer
13	Mrs. Sor Thol	F	Live Chicken Trader in Kampot
14	Mr. Oum Phor	M	Happy Farmer Chicken Raising Cooperative
15	Mr. Ky Thy	M	Chicken Producer
16	Mrs. Sim Pang	F	Chicken Producer
17	Mr. Seang Sophal	M	Animal Feed supplier
18	Mr. Toch Ratanak	M	Chicken Producer
19	Mr. Mat Sokyan	M	Chicken Producer

20	Mr. Keo Sovandy	M	Animal Medicine supplier
21	Miss. Lay Kouy	F	Live Chicken Trader in Kampot
22	Mr. Khorn Khun	M	Officer
23	Mrs. Kon Sreyoun	F	Officer
24	Mrs. Soa Bith	F	Animal Feed supplier
25	Mrs. Ey Yuon	F	Chicken Producer
26	Mrs. Ey Pov	F	Chicken Producer
27	Mrs. Soa Bith	F	Animal Feed supplier
Kampong Speu Provincial Office of Animal Production and Health (POAPH)			
28	Mr.Tep Vichet Mony	M	Head office
29	Mr.Chhim Sonea	M	Head office
30	Mr.Om Sitha	M	Officer
31	Mr.Seang Kityarith	M	Officer
32	Mrs.Suy Seynea	F	Officer
33	Mr.Chhim Sarom	M	Chicken Producer
34	Mr.Tev Noeun	M	Chicken Producer
35	Mr.Sun Heng	M	Chicken Producer
36	Mr.Mong Chamroeun	M	Live Chicken Trader
37	Mr.Chhan Longdy	M	Chicken Producer
38	Mr.Sing Bunheng	M	Animal Medicine supplier
39	Mrs.Hok Chanphea	F	Chicken Producer
40	Mrs Phal Reaksmey	F	District Vet
41	Mr.Chhoun Sim	M	Provincial Vet
42	Mr.Sen Savy	M	Village Animal Health
43	Mr.Kong Chanra	M	Chicken producer
44	Mr.Long Thim	M	Live Chickens trader
45	Mr.Deop Englai	M	Village Animal Health Worker
46	Mr. Deop Englong	M	Village Animal Health Worker
47	Mr.Rith So	M	Village Animal Health Worker
Kampong Chhnang Provincial Office of Animal Production and Health (POAPH)			
48	Dr. Kreng Samart	M	Head office
49	Mr. Noy Sopharith	M	Provincial Vet Officer
50	Mr.Sak Sothonnin	M	Provincial Vet Officer
51	Mr.Moth Seanghai	M	Provincial Vet Officer
52	Mr. Phong Chhaily	M	Chicken Producer
53	Mrs. Loeung Sophal	F	Chicken Producer
54	Mrs. Chhea Chanthou	F	Chicken Producer
55	Mr. Soy Channath	M	Chicken Producer
56	Mr.Chan Pisey	F	Live Chicken Trader
57	Mr. Muth Sreymao	F	Live Chicken Trader
58	Mr. Thoem Sophanneth	F	Animal Feed supplier
59	Mr. Ek Leakena	F	Animal Feed supplier
60	Mr. Sor Chabnat	M	Chicken Producer
61	Mr.Sak Sothonnin	M	Provincial Vet Officer
62	Mrs. Mak Sokny	F	Vice Head
63	Mr.Chhun Sengly	M	Chicken Producer
64	Mrs. Ly NeangTheara	F	Chicken Producer
65	Mrs. Mak Sokny	F	Vice Head

66	Mrs Ly Kimhak	F	Chicken Producer
67	Mrs. Chan Sothon	F	Chicken Producer
Takeo Provincial Office of Animal Production and Health (POAPH)			
68	Mr.Horn Ordom	M	Officer
69	MrYim Borin	M	Officer
70	Mrs.Yoeung Sophally	F	Officer
71	Mr.Nhem Chanreaksmey	M	District Vet
72	MrTep Sinoeun	M	District Vet
73	Mr Chhihn Mean	M	Chicken producer
74	Mr Ouch Buntha	M	Chicken producer
75	Mr. Tim Channa	M	Chicken producer
76	Mr.Mak Yoeung	M	Village animal health worker
77	Mrs.Ket Somaly	F	Live Chicken Trader
78	Mrs. Bun Thea	F	Live Chicken Trader
79	Mr.Ses Soy	M	Animal feed seller
80	Mr.Ku Chhoeungkim	M	Animal feed seller
81	Mr.Nov Hoeun	M	Animal feed seller
82	Mr.Norn Som	M	Chicken Producer
83	Mr.Hin Sern	M	Chicken Producer
84	Mr.Se Im	M	Chicken Producer
85	Mr.Sok Vit	M	Chicken Producer
86	Mrs. Men Mony	F	Chicken Producer
87	Mr.Kheng Thon	M	Chief Animal Health worker
Non-Government Organization			
88	Dr. Chhay Ty	M	Vice Director of Livestock Development for Community Livelihood (LDC)
89	Mr. Son Pov	M	Researcher in LDC
90	Mr. Mao BophaMakara	M	Researcher in LDC
91	Mr. Min Sopheoan	M	Deputy Director AVSF
92	Ms. Bun Thailin	F	Gret Cambodia
Farm Breeding			
93	Mrs.Korn Phearom	F	Farm breeding
94	Mr. Rin Kimhong	M	Data collector
95	Mr. Nhot Bunrong	M	Data collector
96	Mr. Nak Sopheanin	M	Data collector
Private Company			
97	Ly Kimlieng	M	National Poultry Specialist in S.B.K Researcher & Development Co., Ltd.
98	Mr. Vor Sina	M	SK. AGRI-Innovation Co.,Ltd

Figure 1: Participants joining at Kampot province

Figure 2: Participants joining at Kampong Chhnang Province

Figure 3: Participants joining at Kampong Speu Province