

**Report
On
AsCGG project progress and results from nucleus farms with
districts extension**



**Seve National Innovation Platform Convening
Under project
Asian Chicken Genetic Gains (AsCGG)**

17-20 February 2025

Reported by LDC Team



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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. The national innovation platform established with a primary goal of mobilizing public and private sector engagement in the smallholder chicken value chain. This report is seventh NIP among 8 NIP to share the project progress and results from three nucleus farms with provincial extension.

2. Objective

- Progress of AsCGG project
- Summary of chick performance and egg production (Go and G1 generations)
- Feedback and recommendation from provincial extension

3. Participants

There were 62 (woman: 7) participate from office chief, office vice chief, officers and district extension from four provinces (Takeo, Kampot, Kampong Speu, and Kampong Chhnang). The key actors facilitate in this meeting was national animal health and production research institute (NAHPRI) under general directorate of animal health and production (GDAHP) and livestock development for community livelihood organization (LDC).

No	Stakeholder	Sex		Total
		M	F	
1	NAHPRI	1	0	1
2	LDC	2	0	2
3	Takeo provincial office of animal health and production	17	1	18
4	Kampot provincial office of animal health and production	9	3	12
5	Kampong Speu provincial office of animal health and production	14	2	16
6	Kampong Chhnang provincial office of animal health and production	12	1	13
	Total	55	7	62

4. Meeting venue

The 7th National Innovation Platform Convening was organized physical or face to face in the office of provincial office of animal health and production (POAHP) in each target province

5. Time and duration

There were four days schedule for face-to-face meeting and started at 8:00 and finished at 11:30 with the schedule in each province as below

- Takeo: 17 Feb 2025
- Kampot: 18 Feb 2025
- Kampong Speu: 19 Feb 2025
- Kampong Chhnange: 20 Feb 2025

6. Process and result of the meeting

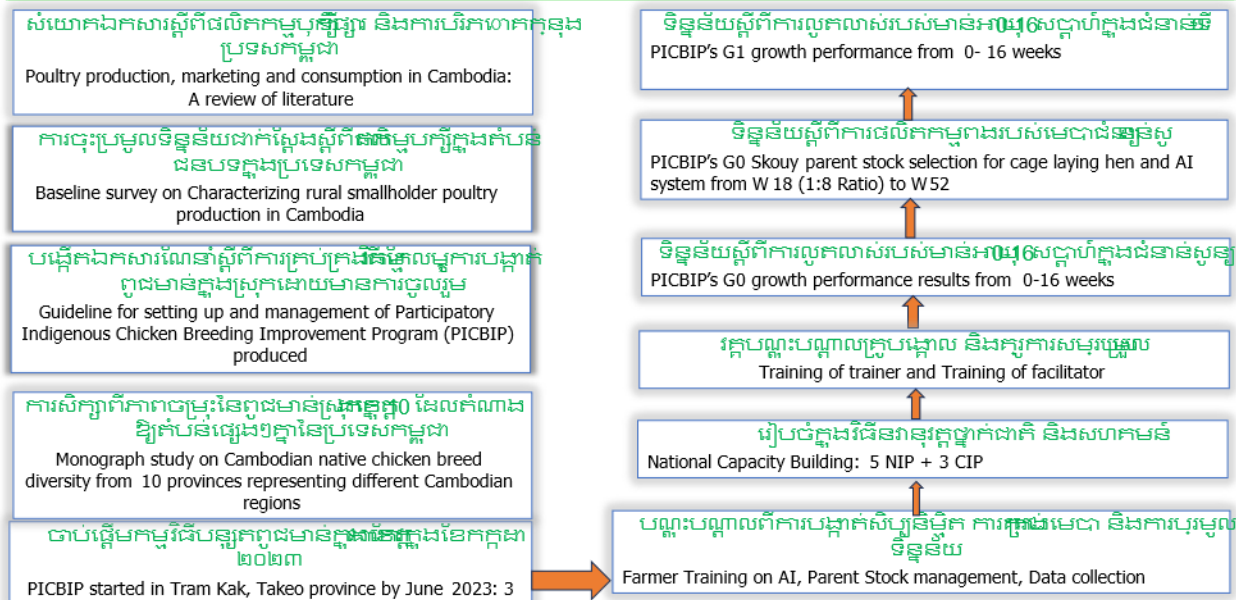
5.1. Session 1: Welcome and Scene-setting

- Dr. Chhay Ty, representative from LDC and he would like to thank you all for spend times with us in the meeting today. The purpose of the meeting was to share the achievement from that project achieve, event there are some challenge causes by covid but we still reach our goal and achieve. Dr. Chhay Ty suggested all participants especially provincial extension raised the questions as it is important to gain knowledge and help to spread our activities to the farmers who are keeping local chicken for income.
- Mr. Phem Menghak: representative from NAHPRI. Mr Menghak is thank to all participants from target provinces that take the value time to join in the meeting and he is happy to share the results from chick performance and eggs production.
- Provincial office of animal health and production: The chief office is similar remark by they are happy that we can meet face to face between project implementers from NAHPRI and LDC and they also thank to donor and project implementers to spend time with them to share the project progress and results to all their officers and hope they can get very useful information related the results from Skouy improving breed.

5.2. Session 2: Project progress

Since recommendation on 6th NIP by provincial office chief, all presentation slides were translated to Khmer.

វិធានការសកម្មភាពបន្ថែមសម្រាប់គម្រោង Activities updated



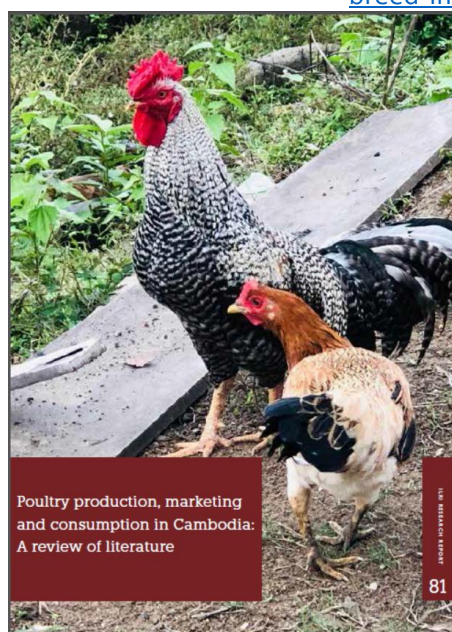
5.2.1. Project progress by Dr. Chhay Ty.

- **Objective of 7th NIP**
 - Project progress since starting until now
 - Share the data of chick performance and eggs production from Go and G1
 - Feedback and recommendation from provincial extension
- **The three cardinal aims of project outcomes**
 - Employment Creation
 - Wealth Creation
 - Poverty Reduction



- **Project activities updated**

- សំយោគឯកសារស្តីពីផលិតកម្មបក្សី, ទីផ្សារ និងការបរិភោគក្នុងប្រទេសកម្ពុជា
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>
- ការចុះប្រមូលទិន្នន័យស្តីពីផលិតកម្មបក្សីក្នុងតំបន់ជនបទក្នុងប្រទេសកម្ពុជា
Baseline survey on Characterizing rural smallholder poultry production in Cambodia. <https://www.ilri.org/knowledge/publications/characterizing-smallholder-poultry-production-cambodia-evidence-baseline>
- បង្កើតឯកសារណែនាំស្តីពីការគ្រប់គ្រងកម្មវិធីកែលម្អបង្កាត់ពូជមាន់ក្នុងស្រុកដោយមានការចូលរួម
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.

4. ការសិក្សាពីនាពចម្រុះនៃពូជមាន់ស្រុកក្នុងខេត្ត 10 ដែលពិការងារឱ្យតំបន់ផ្សេងៗគ្នានៃប្រទេសកម្ពុជា Native Chicken Phenotypic Characterization study in 10 provinces



- PICBIP started in Tram Kak, Takeo province by June 2023: 3 Nucleus farms identified to participate in the Skouy breed improving program.



លោកស្រី ជាន់ ធីនី រស់នៅក្នុងភូមិឃុំត្រាតក ខេត្តតាកែវ



លោកស្រី កន ធារម្យ រស់នៅក្នុងភូមិឃុំត្រាតក ខេត្តតាកែវ



លោក យ៉ម សុទ្ធ រស់នៅក្នុងភូមិឃុំត្រាតក ខេត្តតាកែវ

កសិដ្ឋានចូលរួមអនុវត្តគម្រោង

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: So far, there were 6 NIPs established and running at national level and most all 6 meeting was conducted by online (zoom) by involve with different actors in chicken value chain.

កម្មវិធីនវានុវត្តថ្នាក់ជាតិ NIP Activities

- ✓ 1st NIP: **13 Oct 2023** ប្រមូលចំណេះដឹងស្តីពីផលិតកម្ម និងផលិតភាពក្នុងប្រព័ន្ធផលិតកម្មមាន់ខ្នាតតូចនៅកម្ពុជា
Mobilize new knowledge produced and increase productivity in small-scale chicken systems in Cambodia:
- ✓ 2nd NIP: **09 Dec 2021** ការកំណត់បញ្ហាប្រឈមរបស់ប្រព័ន្ធផលិតកម្មមាន់ខ្នាតតូច
Identified Innovation Challenges:
- ✓ 3rd NIP: **12 May 2022** ស្វែងយល់ពីផលិតកម្មមាន់ត្រី
Native Chicken Production
- ✓ 4th NIP: **25 Aug 2022** Local chicken market problems and solutions:
- ✓ 5th NIP: **21 Dec 2023** Preliminary Result of Participatory Indigenous Chicken Improvement Breeding Program (PICIBP): Success and Challenges:
- ✓ 6th NIP: **21 Nov 2024** Progress of project activities

- Community Capacity Building: So far, there were 4 CIP established and running at province or commune level and all the meeting were conducted face to face with community and involve with chicken value chain at province.

កម្មវិធីនវានុវត្តថ្នាក់សហគមន៍

CIP Activities



>1st CIP: **05 July 2023** Training of Community Facilitators on Design and Facilitation of Community Innovation Platforms:

>2nd CIP: **30 Sep 2023** Experiences shared and learning from chicken management and performance from Week 0-10: Success, Challenges and Solution.

>3rd CIP: **18 Nov 2023** Basic Feed Formulation:

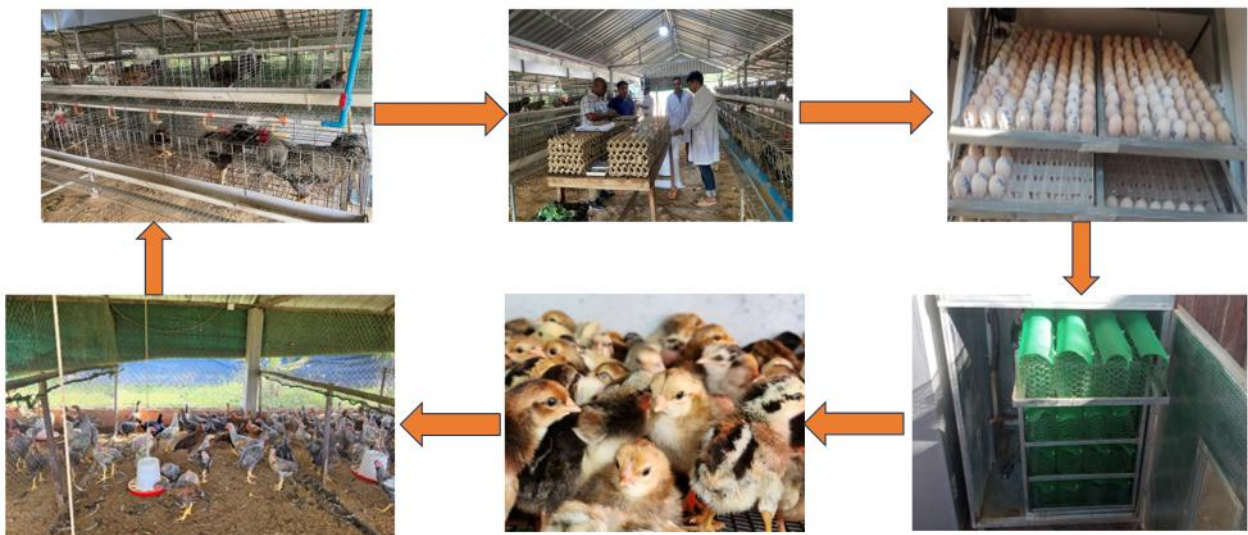
>4 CIP: **December 2024** Sharing results of Skouy chicken performance (G0 & G1)



- 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.

ដំណើរការក្នុងការឆ្លាក់ពង

Eggs production and procedure from week 45-52



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

- **Objectives**

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

គោលបំណងសំខាន់របស់គម្រោងAsCGG គឺ



បង្កើតមុខរបរ



បង្កើតប្រាក់ចំណូល



កាត់បន្ថយភាពគ្រីក្រ



- **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

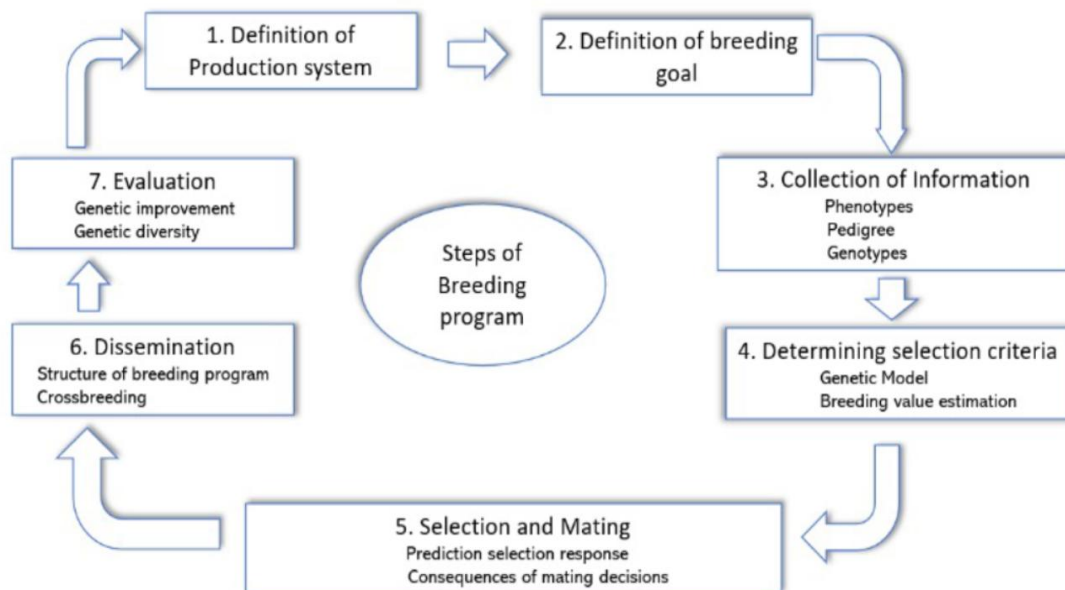
- ***PIC-BIP: What is PIC-BIP?***

- 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 Mating (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)



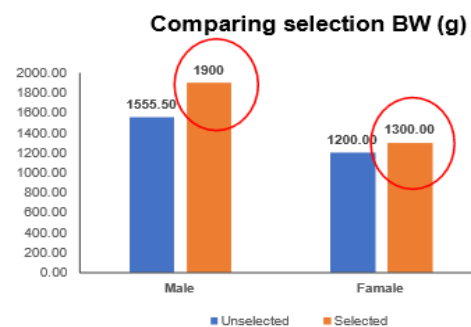
- PICBIP: Growth Performance data

V-PICBIP: Growth Performance Data

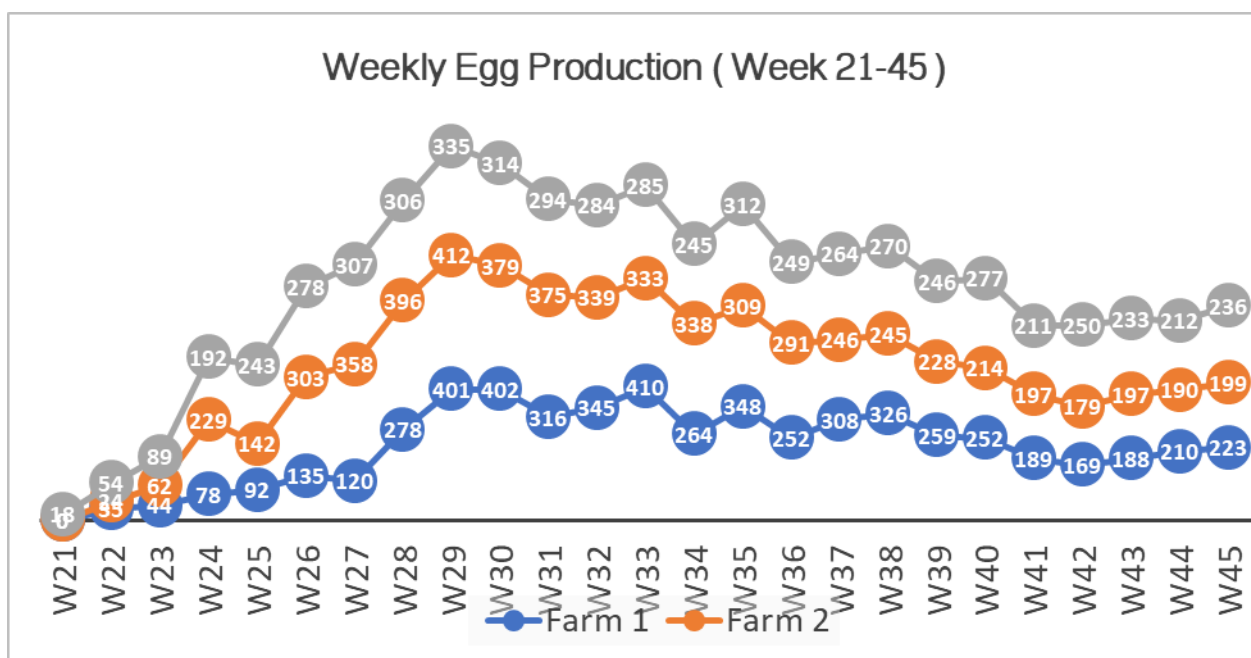
	W0	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	Sold out	Loss	Total Alive	Mortality
Farm 1	1002	1002	1000	997	982	973	970	966	962	960	955	952	951	944	942	936	815	95	10	920	82 8.18
Farm 2	1002	987	987	971	971	965	957	949	947	941	938	933	932	932	929	924	913	0	11	924	78 7.78
Farm 3	1000	1000	997	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	



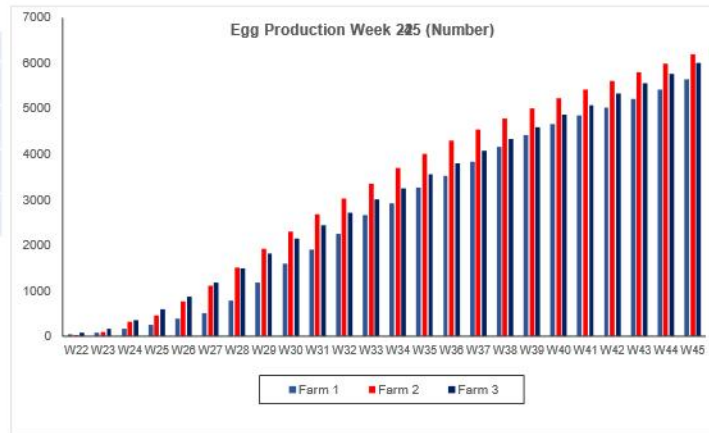
- PICBIP: Egg Production Data



- *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	
Selected	76	81	76.3	77.77	21.56

- *PICBIP: Incubation and Hatchability Data*

V-PICBIP: Incubation and Hatchability Data

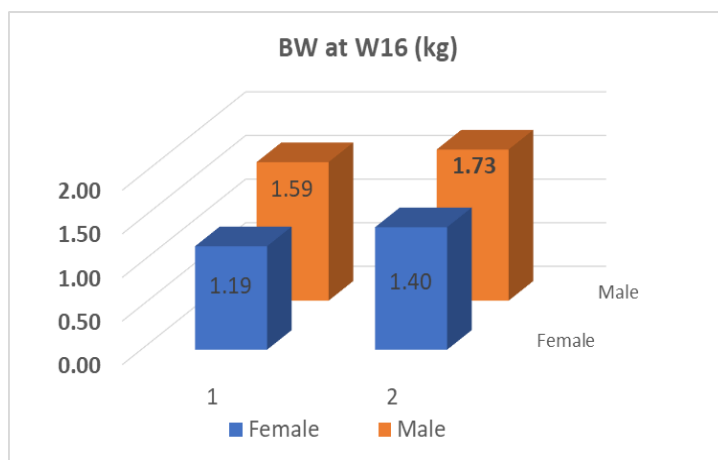


	Fertility (%)	Hatch (%)
Farm 1	83.50	88.28
Farm 2	81.75	79.5
Farm 3	90.80	81.25

	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 produce Skouy Chickens
- Sell chicks and adult chickens to participatory farmers in their communities/cooperative

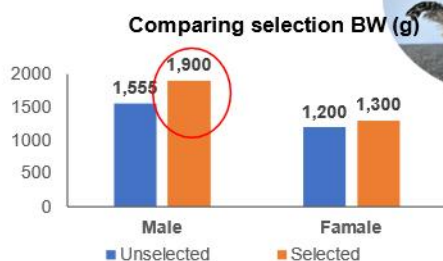
V- PICBIP: Income Generation



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. Group discussion

After presentation on the project progress and results from the skouy breeding activities from three nucleus farms, group discussion was established to answer some questions as below

- What is the status of local chicken raising in your province?
- What is challenging that farmers are facing on local chicken raising in your province?
- How do they solve the challenge/problem?
- Any recommendation or further activities that project implement in your province?

Province	Current status:	Challenges:	Solution:	Further implementation
Kampot	<ul style="list-style-type: none"> - Chicken raising techniques: still practice on traditional raising by let chicken is scavenging and give feed in some time (occasion) - Breed Selection: still keep local breeds and select breed for breeding base on body size, yellow legs and not pure breed. - Chicken market: Supply within in the province and remain export to the markets of Preah Sihanouk Province and Phnom Penh. 	<ul style="list-style-type: none"> - Feed - Chicken house/pen - Breed - Biosecurity - Climate - Diseases - Lack of proper management and care (consequences) - Vaccines - Inbreeding 	<ul style="list-style-type: none"> - Capacity building on chicken raising improvement and dissemination - Select farmers to do demonstrations 	<ul style="list-style-type: none"> - Request for technical improvement on chicken raising, materials, and budget - Provide the training to district officers to able to implement and improve chicken production
Kampong Speu	<p>Raising system</p> <ul style="list-style-type: none"> - Free range/scavenging: 85% - Semi-free range 12% - Confinement: 3% <p>Breed: Mixed breed such as Skouy, black, Che, Kandong and Sampov</p> <p>Breed Selection:</p> <ul style="list-style-type: none"> - Buyi chicken from another farm - Chick from good herd - Knowing the Parents' History 	<ul style="list-style-type: none"> - Low hatching rate - Slow growth - Diseases - Climate change - Limited knowledge on chicken raising 	<ul style="list-style-type: none"> - Be aware on breed selection - Change mindset on chicken raising - Protection, care and vaccination - House/pen, nest, water and feed - Training courses 	<ul style="list-style-type: none"> - Training course on chicken artificial insemination to district officers - Demonstration on chicken raising in target provinces - Province input on chicken raising for demonstration - Provide chicken breeds - Organize training workshop twice per year

	<p>Number of chickens raised:</p> <ul style="list-style-type: none"> - Free ranging/scavenging: 10-15 heads - Semi ranging: 30-40 heads - Confinement: 100-150 heads <p>Market: sell chicken through mobile collector and sell in district</p>			
Takeo	<ul style="list-style-type: none"> - Free ranging with about 90% with traditional pen and nest for laying eggs, while only 10% keep chicken as confinement with net fence or fence make from other materials - Not proper select breed - Inbreeding during select breed - Most farmers sell chicken to middlemen (by motorbike travel around the village) - Some farmers sell directly to restaurants or tourist places and in town. 	<ul style="list-style-type: none"> - Most farmers still practice free-range - Spent long time to reach market or slow growth - No select good breed - Some infectious diseases (fowl fox, Newcastle and respiratory diseases, etc.) - Not often do vaccinations - Vaccine supply is not suitable for farmers who keep few chicken - High morbidity and mortality rates 	<ul style="list-style-type: none"> - Dissemination and provide technical on chicken raising and breed selection to farmers - Establish a model local chicken farm to demonstrate, especially suitable breed for their area. - Conduct study visits to exchange experiences at successful farmers' sites - Support resources (materials, chicken breeds) to demonstration farmers - Strengthen the capacity of district/extension officers in breed selection and chicken raising to support farmers. 	

Kampong Chhnang	<p>Chicken raising system techniques</p> <ul style="list-style-type: none"> - Free-range - Use homemade feed - No proper vaccination - No proper care - No proper treatment <p>Breed</p> <ul style="list-style-type: none"> - Sampov, Krayas, Skouy, Kandong - No proper classification of species <p>Supply and market</p> <ul style="list-style-type: none"> - Insufficient quantity for market 	<ul style="list-style-type: none"> - High mortality - Low production - Lack of knowledge on chicken raising - Not access market before start raising - Spent time to reach market 	<ul style="list-style-type: none"> - Select breed to fix with demand or prefer by farmers or consumer - Provide technical on chicken raising to farmers - Business plan and market supply 	<ul style="list-style-type: none"> - Training courses on breed selection and raising - Artificial insemination - Establish a breed purification in Kampong Chhnang province.
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Appendix 1: Agenda

Time	Agenda Item
8:30-9:00	Session 1: Welcome and open (30 mins) Opening Remarks – Dr. Chhay Ty (10 mins) Opening Remarks – Mr. Phem Menghak, NAHPR (10 mins) Opening Remarks – Chief of POAHP (10 mins)
9:00-9:30	Group photo and coffee break
9:30-11:00	Session 2: Project progress, egg production, and chick growth (1.30hs) Project Progress – Dr. Chhay Ty (30 mins) Summary of egg production and chick growth (Fo and F1 generations) Mr. Phem Menghak (45 mins) Important point to be consideration by Mr. Phem Menghak (15 mins)
11:00-11:45	Session 3: Discussion (45mins) Current status Challenges and Solution Suggestions for further implementation

Appendix 2: Attendant list

Takeo Province					
No	Name	Name in Khmer	Sex	Position	Telephone
1	Phay Lee	ផៃ លី	ប	ប្រធានការិ. បសុ.	012 973 547
2	Ung Sophin	អ៊ុង សុភិន	ប	អនុការិ. បសុ.	012 229 9798
3	Chhuon Bunthoeun	ឈួន ប៊ុនច្បើន	ប	ប្រធានផ្នែក. បសុ.	012 272 427
4	Chea Sokha	ជា សុខា	ប	ប្រធានផ្នែក	092 289 479
5	Ses Sokhon	សែស សុខន	ប	ស្រុកទ្រាំង	088 884 4735
6	Hin Son	ហ៊ិន សើន	ប	ស្រុកអង្គរបុរី	089 537 262
7	Suos Seanglim	សួស សាំងសើម	ស	ស្រុកព្រែកប្បាស	070 954 280
8	Touch Saret	ទូច សារ៉េត	ប	ស្រុកកោះអណ្តែត	077 356 005
9	Oak Serey Sopheak	អោក សិរីសុភក្រ	ប	ស្រុកសំរោង	060 732 733
10	Kang Et	កង អេត	ប	ស្រុកត្រាំកក់	011 708 284
11	Lim Kosal	លឹម កុសល្យ	ប	ស្រុកទ្រាំង	011 846 014
12	Nong Sam	នង សំ	ប	មន្ត្រីការិ. ផ.ប	015 382 600
13	Yi Puthi	យី ពុទ្ធី	ប	មន្ត្រី	088 878 9945
14	Chhun Samnang	ឈុន សំណាង	ប	មន្ត្រី	071 823 2991
15	Sim Changrasna	ស៊ឹម ចាន់គ្រឹះស្នា	ប	ស្រុកបាទី	
16	Cheng Chantara	ចេង ចាន់តារា	ប	ស្រុកគីរីវង្ស	
17	Yi Puthi	យី ពុទ្ធី	ប	ស្រុកបុរីជលសារ	

18	Chea Sokha	ជា សុខា	ប	ក្រុងដូនកែវ	
19	Chhay Ty	ឆាយ ទី	ប	LDC	092 616 160
20	Son Pov	ស៊ុន ពៅ	ប	LDC	
21	Phem Menghak	កឹម ម៉េងហាក់	ប	NAHPRI	098 418 884

Kampot province					
N0	Name	Name in Khmer	Sex	Position	Phone
1	Meng Santipheab	មេង សន្តិភាព	ប	ប្រធានការិយាល័យ ជប	012 603 303
2	Chey Phalla	ជ័យ ផល្លា	ប	អនុប្រធានការិយាល័យ ជប	012 426 425
3	Lin Kea	លិន គា	ប	មន្ត្រីស្រុកកំពង់ត្រាច	089 420 530
4	Ouk Komphac	អ៊ុក កុម្មៈ	ប	មន្ត្រីស្រុកទឹកឈូ	012 378 089
5	Teng Nimol	តេង និមល	ស	មន្ត្រីក្រុងបូកគោ	092 447 399
6	Vibol Karuna	វិបុល ករុណា	ប	មន្ត្រីស្រុកជុំគីរី	069 801 995
7	Duong Sarit	ដូង សារិត	ប	មន្ត្រីស្រុកអង្គជ័យ	095 778 584
8	Kun Srey An	គន់ ស្រីអន	ស	មន្ត្រីស្រុកដងទង់	089 840 190
9	But Bunmakara	ប៊ុត ប៊ុនមករា	ប	មន្ត្រីក្រុងកំពត	077 220 723
10	Mak Chanpae	ម៉ក់ ចាន់ប៉ៃ	ស	មន្ត្រី	010 320 755
11	Krem Sam Ath	កឹម សំអាត	ប	ស្រុកបន្ទាយមាស	
12	Hun Sokha	ហ៊ុន សុខា	ប	ស្រុកឈូក	
13	Chhay Ty	ឆាយ ទី	ប	LDC	092 616 160
14	Son Pov	ស៊ុន ពៅ	ប	LDC	
15	Phem Menghak	កឹម ម៉េងហាក់	ប	NAHPRI	098 418 884

Kampong Speu province				
N0	Name	Name in Khmer	Sex	Position
1	Chhim Sona	ឈឹម សុនា	ប	អនុការិ. បសុ.
2	Khuon Borey	យួន បុរី	ប	អនុការិ. បសុ.
3	Chhieng Rattana	ឈឿង រត្ននា	ប	ក្រុងច្បាមន
4	Nhim Chhoeun	ញឹម ឈឿន	ប	ស្រុកសាមគ្គីមុនីជ័យ
5	Sac Chin	សេក ចិន	ប	ស្រុកបសេដ្ឋ
6	Oum Sita	អ៊ុំ ស៊ីថា	ប	ស្រុកភ្នំស្រួច
7	Un Doeun	អ៊ុន ឌឿន	ប	ក្រុងច្បាមន
8	Ouk Doc	អ៊ុក ដុក	ប	មន្ត្រីការិ. បសុ.
9	Tep Vichet Mony	ទេព វិចិត្រមុនី	ប	ប្រធានការិ. បសុ.

10	Phal Rasmey	ផល់ រស្មី	ស	ស្រុកសាមគ្គីមុនីជ័យ
11	Un Piseth	អ៊ុន ពិសិដ្ឋ	ស	ស្រុកឧដុង្គម៉ែជ័យ
12	Ken Bunthoeun	ខេន ប៊ុនហ្លួន	ប	ស្រុកគងពិសី
13	Khut Yuthea	យុត យុទ្ធា	ប	ស្រុកបសេដ្ឋ
14	Nhoek Sim	ញឹក ស៊ីម	ប	ស្រុកថ្មង
15	Sun Heng	ស៊ុន ហេង	ប	ស្រុកសំរោងទង
16	Lim Bora	លីម បូរ៉ា	ប	ស្រុកឌីរ៉ាល់
17	Chhay Ty	ឆាយ ទី	ប	LDC
18	Son Pov	ស៊ុន ពៅ	ប	LDC
19	Phem Menghak	ភឹម ម៉េងហាក់	ប	NAHPRI

Kampong Chhnang province

NO	Name	Name in Khmer	Sex	Position	Phone
1	Krang Samath	ក្រាំង សំអាត	ប	ប្រធានការិយាល័យពេទ្យសត្វ	012 923 606
2	Hun Le	ហ៊ុន លី	ប	អនុប្រធាន	017 677 711
3	Mak Sokdy	ម៉ក់ សុខឌី	ស	អនុការិយាល័យ	095 865 931
4	Sorn Sothea	ស៊ុន សុផា	ប	មន្ត្រីការិយាល័យ	078 689 919
5	Noy Sopharit	ណាយ សុផារិទ្ធ	ប	មន្ត្រីប្រចាំស្រុកបរិបូណ៌	017 888 503
6	Mak Sophal	ម៉ក់ សុផល	ប	ស្រុកកំពង់លែង	099 271 026
7	Thuan Thintheara	ធ្មន ធីនធារ៉ា	ប	ស្រុករលាប្លៀវ	097 353 4444
8	Chea Sopheap	ជា សុភាព	ប	មន្ត្រីប្រចាំស្រុកកំពង់ត្រឡាច	086 514 840
9	Sak Sotharnin	ស័ក្តិ សុធរណិន្ទ	ប	មន្ត្រីប្រចាំស្រុករលាប្លៀវ	069 818 243
10	Heng Makara	ហេង មករា	ប	មន្ត្រីប្រចាំស្រុកទឹកផុស	012 880 664
11	Sim Vera	ស៊ីម វីរ៉ា	ប	មន្ត្រីប្រចាំក្រុងកំពង់ឆ្នាំង	078 395 550
12	Chem Rotha	ឈឹម រដ្ឋា	ប	មន្ត្រីប្រចាំស្រុកជលគីរី	
13	Koy Phearom	កួយ ភារម្យ	ប	មន្ត្រីប្រចាំសាមគ្គីមានជ័យ	
14	Chhay Ty	ឆាយ ទី	ប	LDC	092 616 160
15	Son Pov	ស៊ុន ពៅ	ប	LDC	
16	Phem Menghak	ភឹម ម៉េងហាក់	ប	NAHPRI	098 418 884

Appendix 3: Photos of participants

Figure 1: Participant from Takeo province



Figure 2: Participants from Kampot province



Figure 3: Participants from Kampong Speu Province



Figure 4: Participants from Kampong Chhnang Province

