ព្រះរាជាណាចក្រកម្ពុជា

ជាតិ សាសនា ព្រះមហាក្សត្រ

ក្រសួងកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ

(កសក)

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PROJECT IP: P171331

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KINGDOM OF CAMBODIA

NATION RELIGION KING

Beneficiary Profile Report

Psang Indigenous Community, Taveng Krom Commune, Taveng District, Ratanakiri Province

PROJECT IP: P171331

JANUARY, 2023

Contents

I. Introduction

1.1 LASED III in brief

1. Since 2008, the World Bank, through Land Allocation for Social and Economic Development (LASED) projects, have continuously supported the government Social Land Concessions (SLC) program to successfully pilot a more sustainable and transparent process of land allocation to poor people. In addition, these projects have also supported the development of rural roads, small irrigation systems, primary schools and health posts, while providing agricultural training and support for expanded farming services in order to promote the livelihood and economic development of the land recipients during the whole project.
2. The Land Allocation for Social and Economic Development, Phase III (LASED III) would follow a two-pronged approach: (i) consolidating through complementary activities the current SLC program under LASED II and expanding it into new SLC sites within the same provinces; and (ii) implementing an adapted approach into communities of indigenous peoples in new project provinces. The project would build on the successful and well-established procedures under LASED and LASED II for implementing SLC activities, but also adapt them to indigenous peoples' communities.
3. The project development objective (PDO) is to provide access to land tenure security, agricultural and social services, and selected infrastructure to small farmers and communities in the project areas. In addition, the project's key activities include social land concessions, indigenous community land registration, commune land use planning, physical infrastructure development, and support for livelihood development. LASED III is expected to contribute to poverty reduction, livelihood improvement and expansion of climate resilient road infrastructure.
4. The Land Allocation for Social and Economic Development, Phase III (LASED III) is the governmental project with a total budget of US $ 107 million, funded by the International Development Association (IDA) through the World Bank (WB) of which US $ 93 million and US $ 14 million is a contribution from the Royal Government of Cambodia. LASED III has been implementing by the following ministries:
    a) Ministry of Land Management, Urban Planning and Construction (MLMUPC) as the Executing Agency (EA), and
    b) Ministry of Agriculture, Forestry and Fisheries (MAFF) as the Implementing Agency (IA).

5. Within their framework, the project would support: (i) about 15 Indigenous Communities (ICs) to carry out their respective Indigenous Communal Land Titling (ICLT) processes; (ii) about 30 ICs, that have completed their titling processes, with development activities; (iii) about 12 SLC new sites in both currently covered and new provinces for land allocation and development activities; and (iv) the current 14 SLC sites currently covered by LASED II with limited, discrete and complementary activities such as small-scale irrigation and agriculture access tracks across SLC sites. However, it is not likely that all the estimated 57 new sites and communities would be identified and fully delineated, and all potentially required reclassification and/or reallocation completed before the start of the project.
6. During the launching workshop[1] presided by **H.E CHEA SOPHARA**, Deputy Prime Minister, Minister of MLMUPC, and Chairperson of the LASED III, he has announced officially that LASED III will be lasting for the period of six years project, starting from October, 2020 until December, 2026. During the six years of the project, the MLMUPC and MAFF will execute the project in the geographical targeted with suitable land and location at 71 sites[2] of around 30,000 hectares (included 10,000 hectares of indigenous communities), wherein 26 sites are for social land concessions and 45 sites for indigenous communities with approximately 15,000 rural households will get direct benefit from LASED III.
7. LASED III would follow a two-pronged approach: (i) consolidating through complementary activities the current SLC program under LASED II and expanding it into new SLC sites within the same provinces; and (ii) implementing an adapted approach into communities of indigenous peoples in new project provinces. The project would build on the successful and well-established procedures under LASED and LASED II for implementing SLC activities, but also adapt them to indigenous peoples' communities.
8. The Project consists of following parts:

A. Component 1: Selection and Development Planning of Social Land Concessions and Indigenous Communal Land Titling

This component is planning to the provision of technical support for (a) processing applications for SLCs, including determination of land availability, carrying out environmental and social

[1] Launching workshop virtually dated on June 24-25th, 2021, organized by MLMUPC which has been participated from implementing ministry, governors of relevant provinces such as Ratanakiri (RAT), Mondolkiri (MKR), Stung Treng (STG), Thboung Khmum (TBK), Kratie (KRT), etc. amounting more than a hundred participants.

[2] This amount will be flexible due to the actual implemented activities done by MLMUPC. The ICs is increased from 30 ICs to 33 ICs, so the total is 74 sites for both ICLTs and SLCs that will be implemented under LASED III.

assessment (ESA) and (commune) land use planning ((C)LUP)[3]; (b) processing and registration and completion of titling process; (c) planning of infrastructure and service investments in indigenous communities, through (i) participatory preparation of SLCs and ICLTs plans; and (ii) identification, prioritization, and planning for infrastructure investments; and (iii) processing of individual SLC land titling for eligible land recipients and ICLT for eligible indigenous communities.

B. Component 2: Community Infrastructure Development

According to the early preparation from the relevant execution ministries with the participatory preparation of WB team, this component is subjecting to the provision of economic and social community infrastructures investments in the sub-projects in the projects areas in: (a) transport connectivity, water supply and sanitation, school and health infrastructures; and (b) small-scale irrigation schemes.

C. Component 3: Agriculture and Livelihood Development

This component is mainly implemented by MAFF as implementing agency on the provision of: (a) settling-in assistance to new land recipients; (b) initial land preparation assistance including a first cover crop; (c) technical support for MAFF's implementation of the comprehensive agricultural services strategy; (d) technical and operational support for establishment and strengthening capacity of community groups; and (e) revolving funds (RF) to eligible community groups to scale-up local initiatives on enhanced productivity and incomes for farmers, mitigation and adaptation.

D. Component 4: Project Management, Coordination, and Monitoring and Evaluation

This component would ensure effective project management through the (a) carrying out of the day-to day implementation, coordination, and management of project activities, including planning and execution, financial management, procurement, internal and external audit, environmental and social impact management, monitoring, reporting and evaluation; and (b) strengthening the SLC and ICLT management information systems.

E. Component 5: Contingent Emergency Response

This component is provisioned of immediate response to an eligible crisis or emergency, as needed. The contingent emergency response component, with a provisional zero allocation, would allow for the reallocation of financing to provide immediate response to an eligible crisis or

[3] According to the sub-decree No.72 dated on June 05th, 2009 about the procedure of commune land use planning will be used as the tool to prepare on the land use planning. In addition, MAFF will conduct the agro-ecological analysis (AEA) onsite to randomly select the soil samples to analyze the physical and chemical assessment for suitable agricultural land usages and zoning.

emergency. An Emergency Response Manual (ERM) is included in the PIM which will describe implementation arrangements for the component, including its activation process, roles and responsibilities of implementing agencies, positive list of activities that may be financed, environmental and social aspects, and fiduciary arrangements.

9. Principally, LASED III's geographically targeted shall be operated throughout the whole country, where Phnom Penh capital city is not included, according to the demand driven approach adopted for the SLC and ICLT. However, current agreement with authorities limits the project's coverage to the 14 provinces[4] that would host about 71 sites and IP communities. In addition, to choose the beneficiary targeting, the approach to the delivery of LASED III relating to SLCs and ICLT[5] is applied based on "demand-driven". For instances, the allocation of both SLCs and ICLTs is commune-based or ICs-driven, rather than pre-determined by the project. Table 1.1 below shows about the beneficiary targeting of both SLC and ICLT.

Table 1.1 Beneficiary targeting

SLC/ICLT	SLC's support		IP's supports (ICLTs and ICs)	
			Development support to already titled ICs	Titling - ICLTs
	Existing	New	(targeted)	(targeted)
	14	12	30 (+3)	15
Total	26		45	
Grand total	71 (+3)			

Source: PIM, 2022.

II. Data Collection Methodology

10. This study is divided into two phases in order to collect the data and information regarding to the targeted indigenous communities such as (i) secondary data sources collection is provided by the local authorities through the implementing officials of LASED III under Provincial Department of Agriculture, Forestry and Fisheries (PDAFF) includes the total households

[4] Such as Ratanakiri, Mondolkiri, Stung Treng, Kratie, Kompong Thom, Preah Vihear, Thboung Khmum, Kompong Speu, Odormeanchey, Banteaymeanchey, Siem Reap, Battambong, Kompong Chhnang and another one will be done soon according to the proposed site location from the local governor of available land to join with the project.

[5] **ICLT Eligibility:** According to the Article 23 of Land Law 2001, the eligible criteria for starting the process of ICLT include a group of people who share ethnic, social, cultural and economic characteristics and cultivate their land in a collective manner. In addition, the Circular 0974/09 of the Ministry of Rural Development made specific criteria that 1) they manifest their self-identity which is recognized by the local authority; 2) they have their own speaking or written language, even that has disappeared; 3) There are traditional leaders including elders, tribal leader, or an existence of traditional decision making structure; and 4) there are five different types of community land including spirit forest land, burial ground, swidden land or reserve land, actual land area for cultivation, and residential land. In addition, the well ranking of the IC applicants would also include the requirement of having community by-laws, composition of the Community Committee, and the IPC Internal Rules accommodate inclusion of women and youth in decision making.

(HHs), number of the population inside the village and community (included males, females and children, etc.), and (ii) primary data sources collection is gathered from the interview during the mission at the communities directly by using the prepared questionnaires (See the annexes).

11. Practically, the method used to collect the data and information of beneficiaries includes the organizing the orientational extensively meeting to introduce the objectives of the project, the purposes of the mission and mission team members in order to provide the information to the participants understand of the mission then arranging the interview of each participant. After that, the mission team will go directly to interview the rests who do not participate at every household remained. In order words, there are two different ways of interviews such as (1) individual and (2) group interviews in order to make every interviewee to be isolated without disturbing from another people or to ensure they are free at talking.

12. The mission was conducted provincially in **Psang indigenous community/village, Taveng Krom commune, Taveng district, Ratanakiri province** from **16 to 21 January 2023**. However, the national mission team led by **Mr. PHON RENO**, Head of Agro-Industrial Unit under LASED III, has prepared the orientation meeting with sub-national implementing officials of LASED III under RAT PDAFF on January 13th, 2023 virtually as well to prepare the logistics and relevant materials before go to the community. In addition, the mission team has organized the orientation about the questionnaires on January 17th, 2023 at RAT PDAFF meeting hall as well.

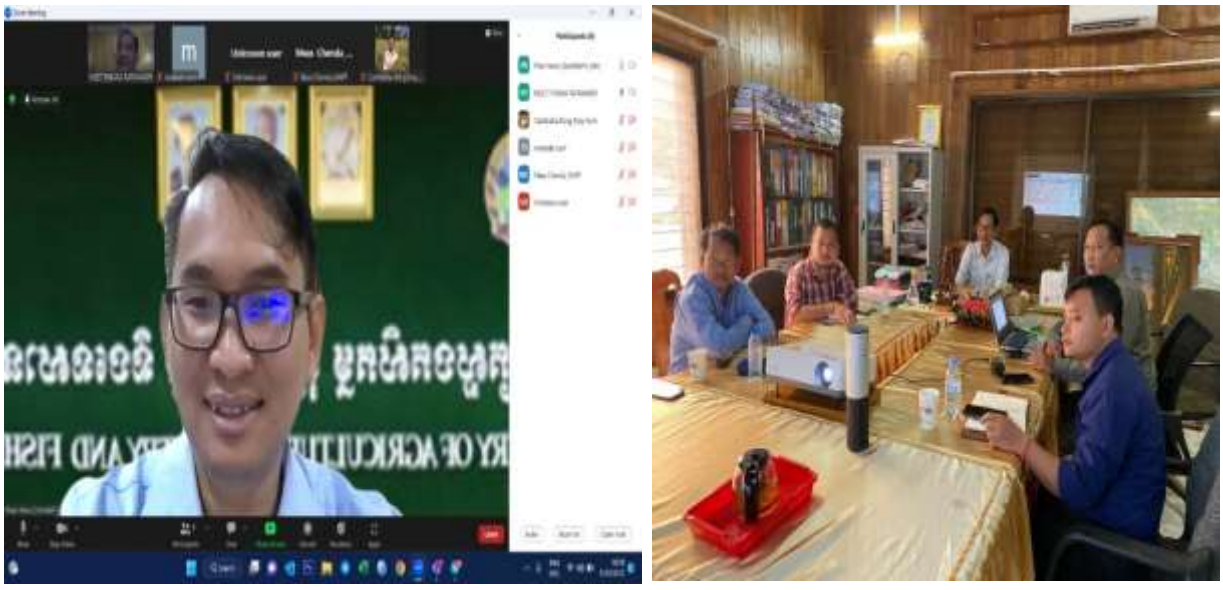


Photo 2.1: Logistic arrangement virtually meeting on January 13th, 2023

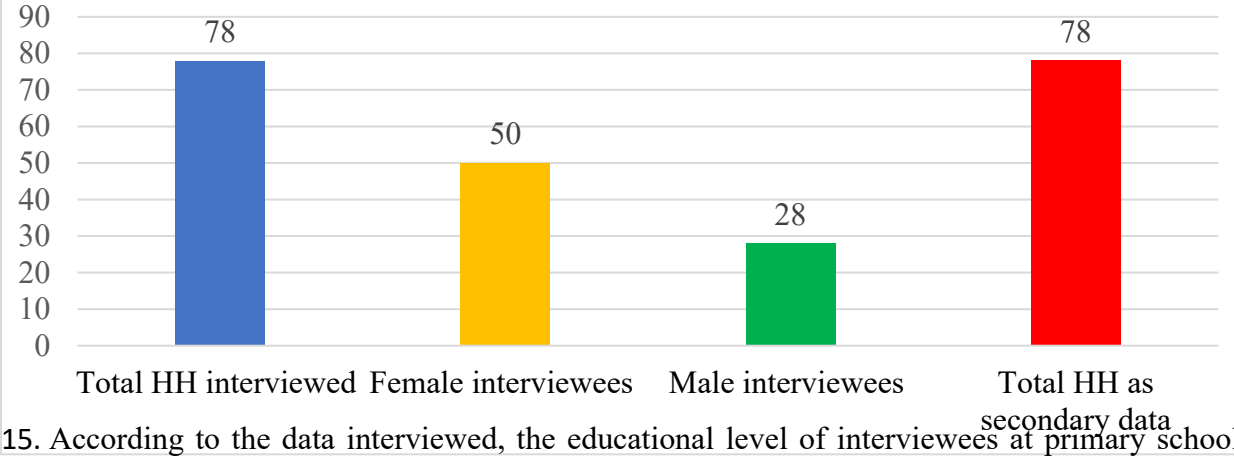
III. Results

3.1 General Information

13. **Psang indigenous community** is a village locates in **Taveng Krom commune**, **Taveng district, Ratanakiri province**, standing at North East side, about **60 km** from **Banlung town**. The majority of citizen of this village are **Prov Indigenous People** (PIP). Geographically, its UTM numbers are **48P 723531-1557084** and **48P 721214-1557398** once the mission team pointed by using the Samsung Galaxy S9+ smartphone.

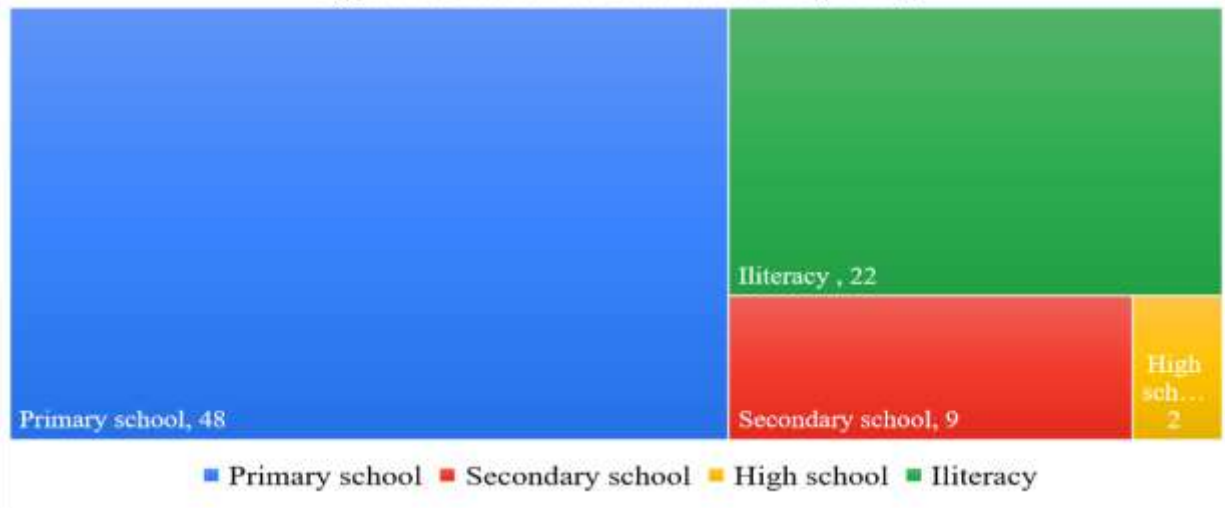
14. According to the secondary data from village chief of **Psang village**, the total population inside this village is 280 IPs (Includes 144 females and 136 males) equals to 78 households (HH). However, once the mission team has completely interviewed of all families in **Psang village** there are totally about 78 HH (F50, M28) because the new families just marriages (See figure 3.1).

Figure 3.1: Total HH interviewed and total HH as secondary data (HH)



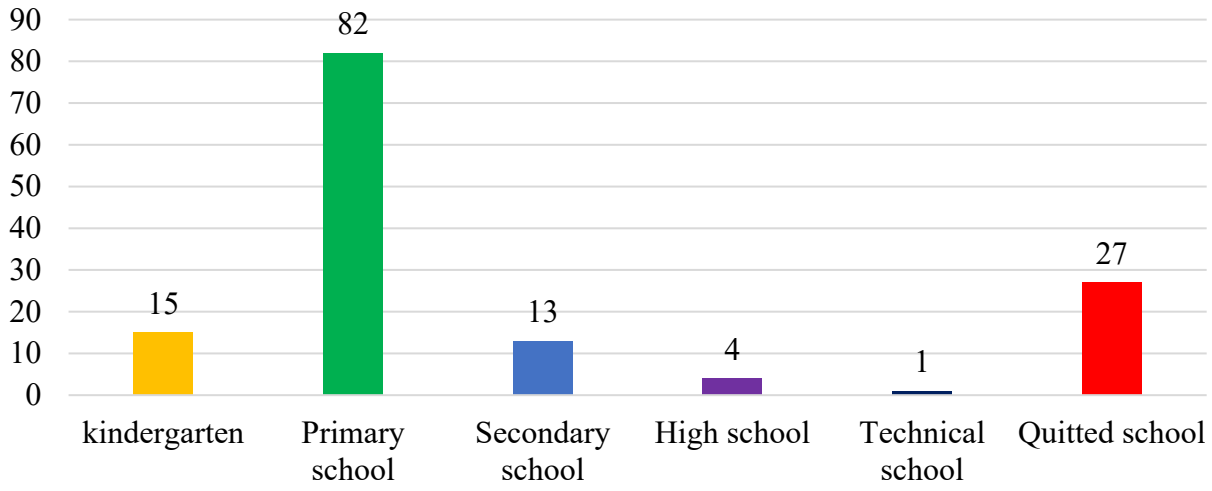
15. According to the data interviewed, the educational level of interviewees at primary school, secondary school, high school and illiteracy rate is about 59.25%, 11.11%, 2,48% and 27.16%, respectively (See figure 3.3: Interviewees' educational level).

Figure 3.2: Interviewees' educational level (Person)

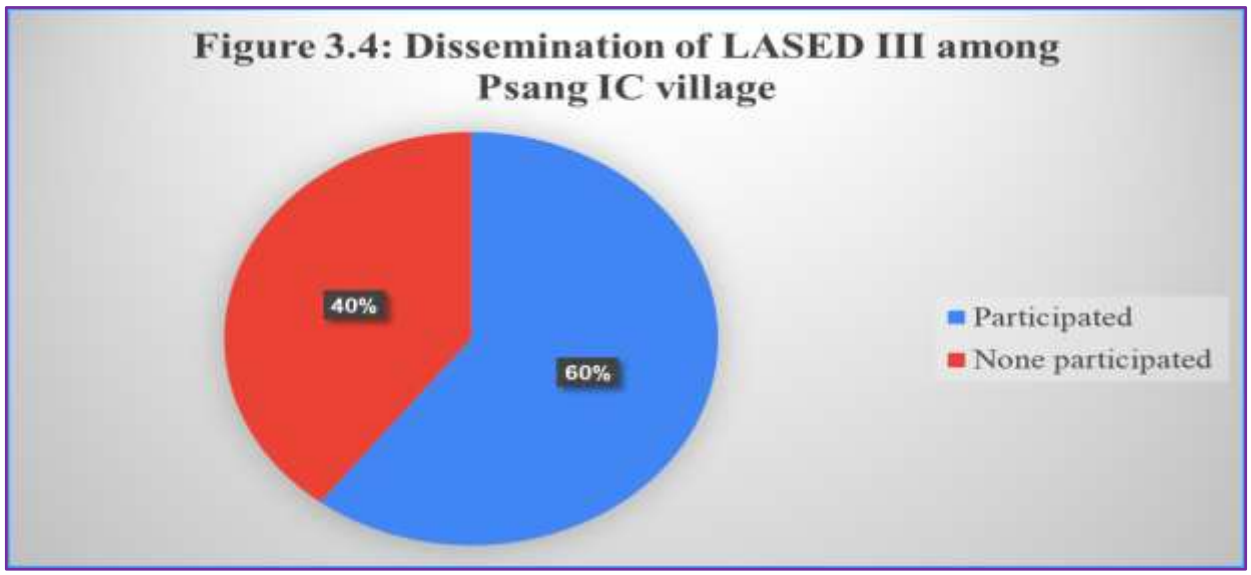


16. Based on the interviewed data, there are approximately 240 IP's children[6] which consist of 124 and 116 of girls and boys, respectively. At the same time, those children are mostly studying at primary school, some at secondary school and few at high school inside the village. By the way, there are approximately 41% of those children were quitted the school and got marriage already (See the figure 3.2) while almost noon technical school students and undergraduate students.

Figure 3.2: Educational status of IP's children (Person)



17. Since early year of starting the LASED III project, the MAFF team has already organized the dissemination among them so that **Psang IC village** has intentionally applied for agricultural supports since 2021. However, during the dissemination, some of IPs did not join because of some reasons related to their personal daily works. In fact, there are approximately 60.50% of the total IP has been participated the dissemination days conducted by MAFF (See figure 3.4).



[6] However, there are 02 IP's death. So, there remains only 238 IP's children.

18. Rationally, even though the interviewees' answers had joined the dissemination day not hundred percent but they are willing to welcome the LASED III project inside the **Psang IC village** tightly as indicated in the agricultural support application requested.
19. Recently, the infrastructures inside **Psang village IC** include the earth roads, approximately 1.8 km, and there is no laterite road and DBST road. Regarding to the water sources, there are one lake, called **Halann lake**, which consists of its volume approximately 40 000 cubic meters (20 000 m^2 x 2 m), a river named **Sesan river** which has its length of more than 3 km in the village community as well as a there is also a stream about 3 km long. For the educational infrastructure, there is one building of primary school named **UWS Phum Sahakar Primary School** and there is also an indigenous community headquarter/community office. As per observation, the health post is not located in this village where they have to travel about 15 km from the village to get the health services at the health post near Taveng commune office.

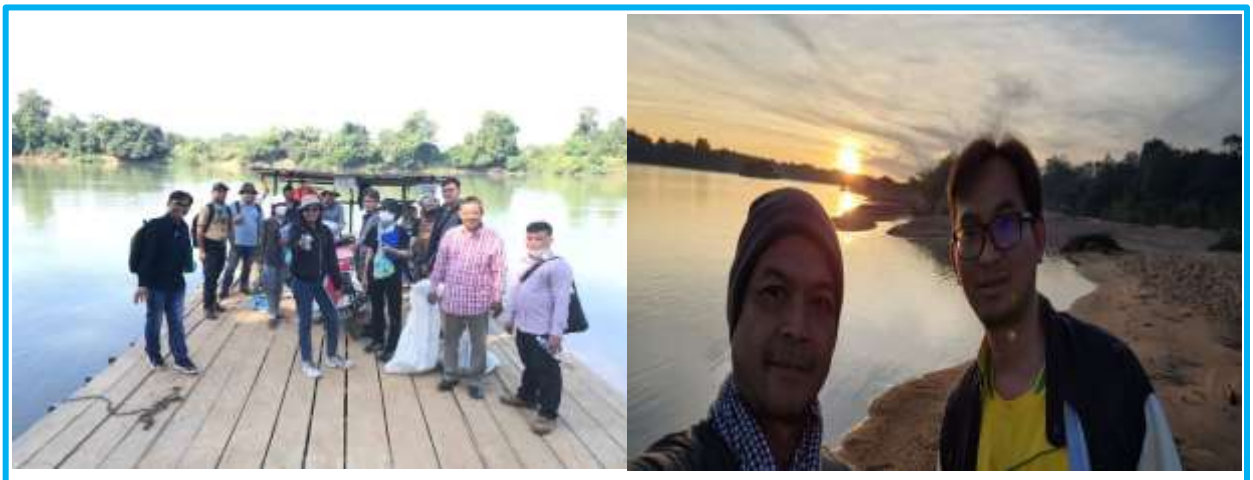


Photo 3.1: Mission teams were crossing the Sesan river to Psang IC

Photo 3.2: Primary school and Psang IC's community office building

20. If we look at daily life and livelihood in general, the people in the indigenous community of **Phsang village** have been engaged in agriculture, including the cultivation of industrial crops (cashew, sesame), paddy/rice, vegetables, raising animals (mostly cattle, mice pigs and chickens), fishing traditionally in the **Sesan lake** and few households do fish farming (aquaculture), beside that they are engaged in weaving **Kapa** (See photo 3.3 below) and traditional materials, **wine jars** making (See photo 3.3 below), wood handicrafts, and construction in and outside the village. Meanwhile, new comers who come to live and become members of the indigenous community of **Phsang village** are engaged in selling groceries, food and other materials. Additionally, there are about 252 labor force in agricultural sector.

Photo 3.3: Daily life and livelihood engaged in agriculture

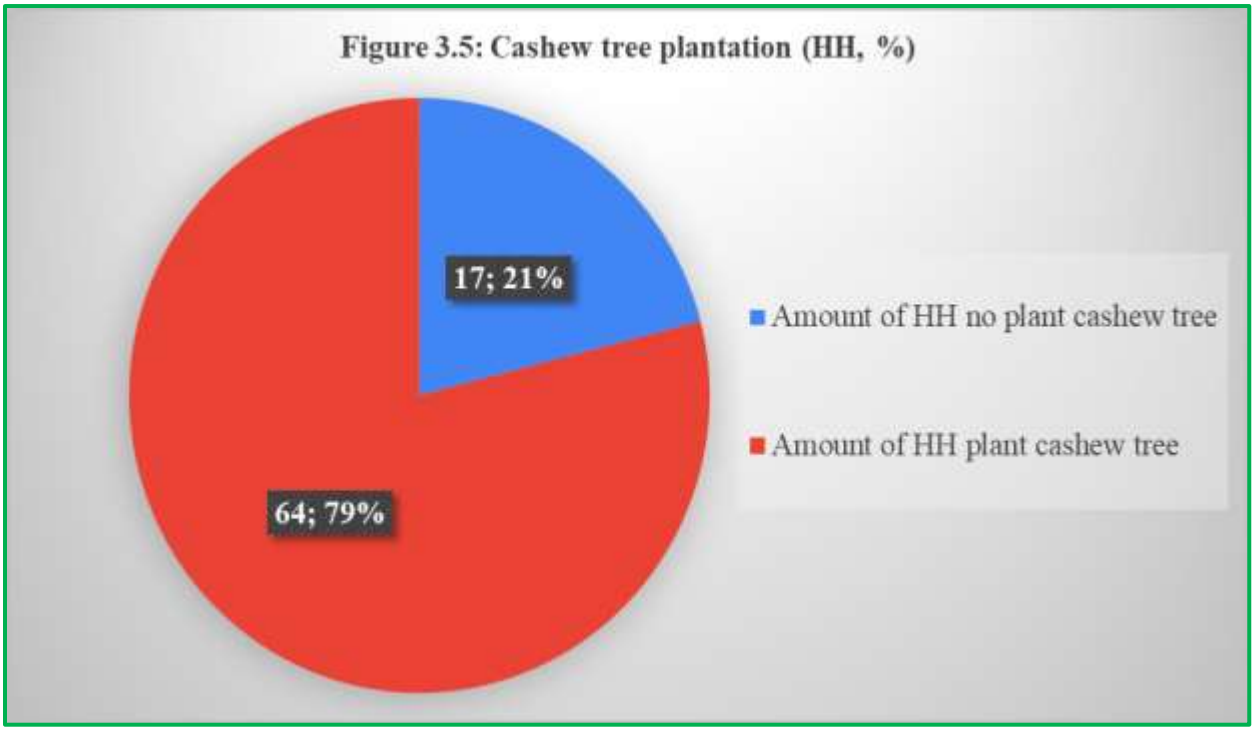
3.2 Crops Production Potential

3.2.1 Cashew Tree Production

21. According to the interview of all 81 HHs, it is indicated that total areas of cashew tree plantation is approximately 92 ha which means that there is approximately 1.14 ha per household in average. However, referring to the interviewees' answer, there are about 17 HHs equals to 20.98% who have not planted cashew tree because of several reasons[7]. For the cashew

[7] Such as no cultivation lands, lack of labor forces, lack of technical support, lack of investment and poor, etc.

tree's age is between 2 years old to 5 years old only[8]. In 2022, the total cashew tree harvested areas was about 51.5 ha which its yields harvested were approximately 17.97 tons. Economically, they sold the cashew nut with minimum prices and maximum prices, 2500 and 5000 riels, respectively. For details of every household who plants cashew tree is attached in the annex 4.2 below of this report.



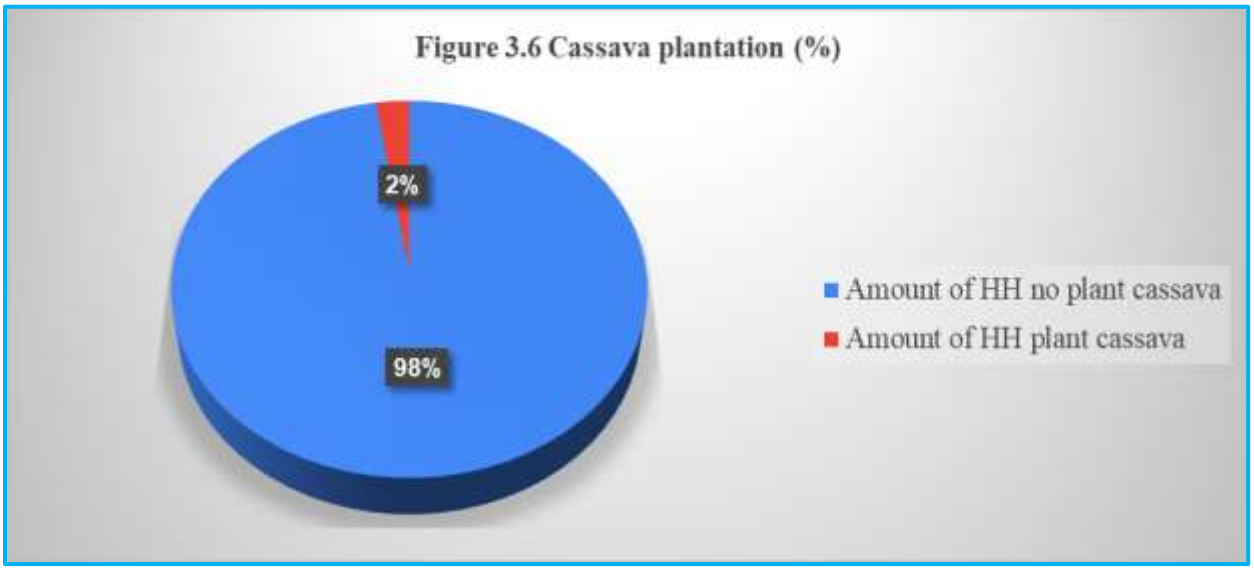
22. Eventually, an average of cashew nut yield in **Psang IC village** last year was 348.93 kg per hectare. However, according the Cambodian Cashew Nut Association (CAC), the average yield of cashew nuts is 1 to 1.5 tons per hectare, depending on soil quality, cultivation and crop maintenance as well as cashew variety while some areas can yield up to 3 tons per hectare. Seasonally, the cashew harvest season usually begins in February and lasts until the end of May, annually. Naturally, the cashew tree planted by its nut will be released the blossom of flowers at 3 to 5 years old.
23. It is true that cashew nuts during the early harvest season get better prices. In recent year, cashew nuts currently cost 5500 riel per kilogram, while prices fluctuate. The price of last year's harvest started from 6000 riel per kilogram. However, the current price is still good if farmers follow the standard of care. In these few years ago, "despite the challenges faced by the Covid-19 pandemic, farmers can still get between $ 1500 and $ 2000 per ton," according

[8] As per local authority's and PDAFF's information, **Psang IC village** is just interested in cultivating the cashew tree in the recently year that's why during the interview it was indicated that their cashew tree's age is considerably young and they get very low yield as the elder cashew tree.

the CAC, and "prices can drop to $ 1 per kilogram, but farmers can still make a profit". Recently, most of the cashew nuts grown in the Kingdom of Cambodia are M23.

3.2.2 Cassava production

24. There is only 02 HHs that have just have been cultivated the tapioca crop for the whole village. It is so surprised to hear that once the mission team interviewed them. In fact, there are more reasons included lack of varieties of tapioca resistance with diseases, lack of NGOs and public sector support on its farming technique and other supports, no cultivation land, etc. On the other hands from the previous experiences, tapioca is the second main economical crop among other indigenous communities to be grown annually in other provinces. Normally, its yields were sold into two different forms includes (i) fresh tapioca chip and (ii) dried tapioca chip with following prices 300 riels per kilogram and 600 riels per kilogram, respectively. For details of every household plant tapioca is attached in the annex 4.3 below.
25. Normally, the yield of tapioca is between 15 and 25 tons per hectare while some areas its yield is 35 tons per hectare. According to the news released by ministry of commerce, in December 2021, the average price of dried tapioca was between 786-869 riel per kilogram, while in December 2020 it was 667-875 riels in some areas of Cambodia. In addition, fresh tapioca costs 260-360 riels, compared to 267-363 riels. Last year, in some areas, the price of fresh tapioca was 310 riel and dried tapioca was 810 riel per kilogram.

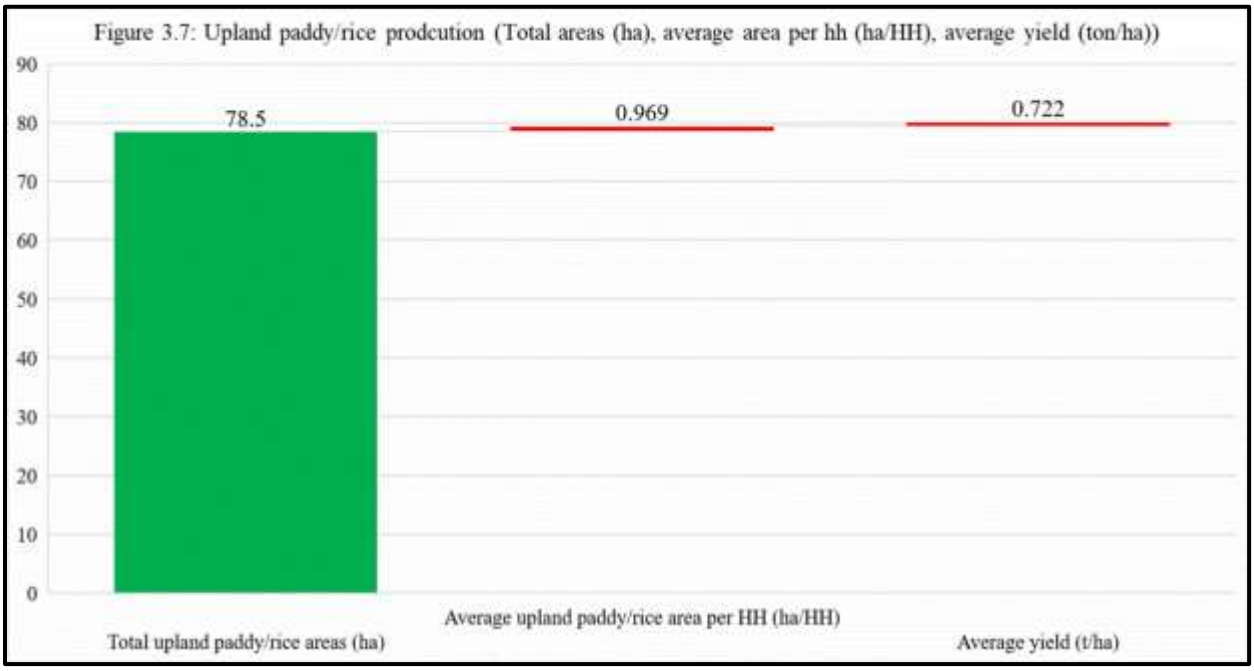


3.2.3 Rubber Production

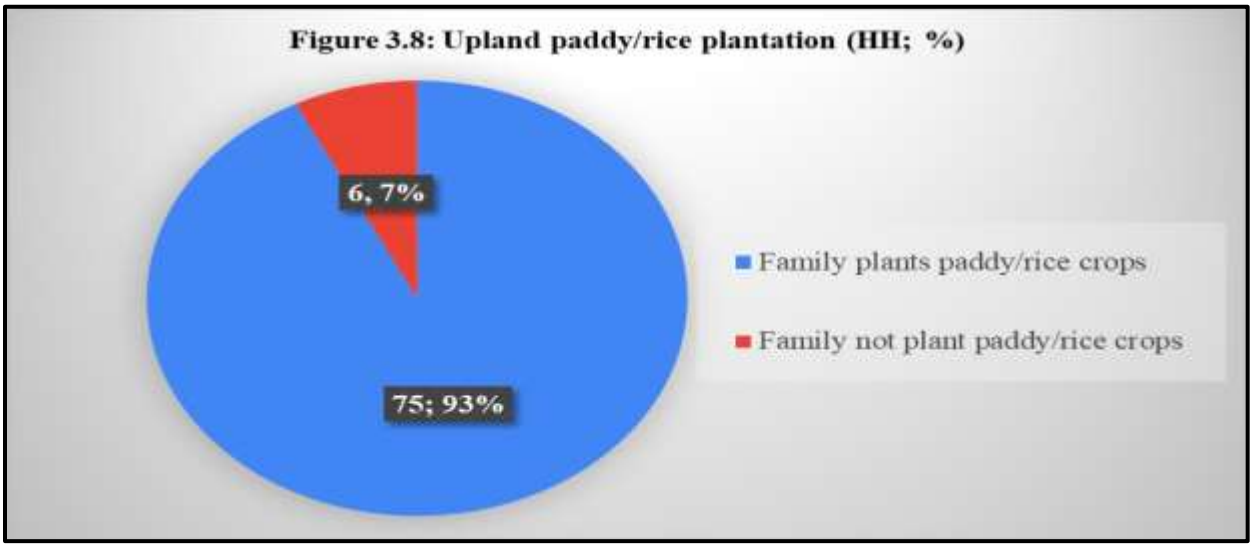
26. The whole **Psang IC village** has no even a rubber tree based on the interview with all 81 HHs and once travelling as observation inside the village.

3.2.4 Paddy/Rice Production

27. Besides growing cashew and tapioca, there are approximately 78.50 hectares of paddy/rice production with the total quantity yields around 58.458 tons equally of both traditional planting method (upland rice) and rainfed lowland rice of 75 HHs out of 81 HHs of this village growing rice, according to the interview, and there are only 06 interviewees mentioned that they do not cultivate rice crops because of several reasons[9]. According to the figure 3.7 below shows that an average of upland paddy/rice area and an average of upland paddy/rice crop of the ethic people are approximately 0.969 ha and 0.722 ton/ha, respectively.



28. As mentioned above, figure 3.8 below has shown that 06 HHs among 81 HHs have not planted the upland paddy/rice crop within several reasons.



[9] They are living with their children and relatives, lack of cultivation lands, selling labor forces, etc.

29. This is to remark that they did not mention about their rice crop variety they plant. However, they are planting the traditional varieties since their village establishment routinely and annually. Actually, the farming activities of the ethnic people seem to be very low and minimal for the people because they still keep the traditional farming or farming habits to this day. Traditionally, rice farming in the upland rice fields is a tradition of the indigenous people as they know how to plant from generation to generation from ancient times and what impresses us is that before they started to plant rice in each field and location, they always cook chickens, ducks, oaths, wine, jars, rice seeds and pre-loading equipment before planting (ធ្វើការបុកដាំ), they gather together a lot of elders and district owners to sacrifice in the fields to pray to the demons and wish all the elders help their rice seed to get more yields, wish for the rice grow and flower blossom and pray for the pests will not harass or destroy their rice crop. In this case, everyone can imagine of the portrait of the hardship in planting rice among the ethic people even this new era, recently (See photo 3.4 below).

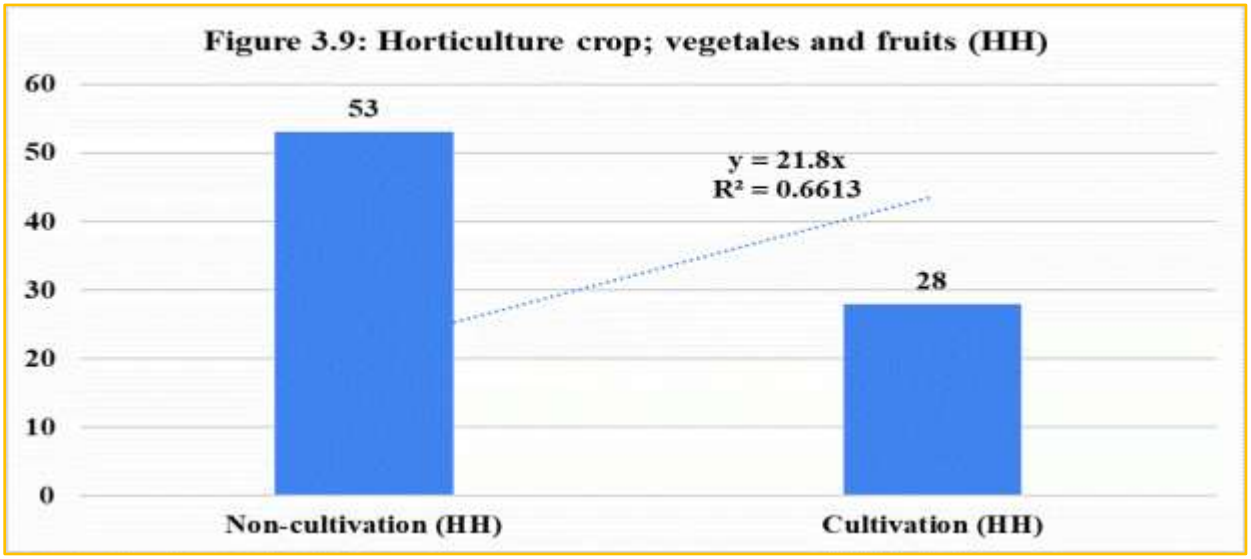
Photo 3.4: Traditional upland paddy/rice production cultivation of the ethic people in Ratanakiri province[10]

[10] Because of at that time of the mission, it was not the cultivation season and during the interview, they mentioned about their method of their traditional planting of upland paddy/rice crop for the interviewer to listen so that's why I am trying to find the suitable photos from every source to show in this report and to show how hard it is of their custom, tradition, norm, etc. Source available at: https://www.cnc.com.kh/detail/news/7791 and https://khmerpostasia.com/archives/54475. Derived date on: January, 27th 2023.

30. As the results, their rice production yield in average is 0.722 ton per hectare (As mentioned in paragraph 27) and this quantity is enough for household consumption annually without selling any kilogram. However, the price of their paddy is between 800 to 1000 riel per kilogram. Based on the interview, few families have sold their paddy/rice too about less than a hundred in order to get money to support the daily foods consumption, yet they did mention much about that. For details of every household plant paddy/rice (upland rice) is attached in the annex 4.4 below. As per mentioned, rice crop is cultivated for household consumption only.
31. However, refer to the MAFF's annual report in 2021, an average yield of paddy/rice for wet season rice and dry season rice were approximately 3.108 tons and 4.418 tons per hectare, respectively. While at the same time, an average of paddy/rice planted in everywhere through the Kingdom was 3.344 tons per hectare.

3.2.5 Horticulture[11] Crop

32. Vegetable is one among other edible crops of horticulture crop which is very essential for well-being consumption as foods and sources of trace elements required for human metabolism processes. According to the interview of all 81 HHs in **Psang IC village**, it is found that there are approximately 28 HHs equals to about 34.57% of the total interviewees has been cultivating vegetables for household utilization and selling to the domestic areas inside this village while there are more than 65% (53 HHs) have not cultivated it for household consumption (See figure 3.9 below). In total areas cultivating based on the calculation of the interviewees' answers, the farming areas totally is estimated approximately 1343.43 square meter.



[11] Horticulture, the branch of plant agriculture dealing with garden crops, generally fruits, vegetables, and ornamental plants. The word is derived from the Latin hortus, **"garden,"** and **colere**, "to cultivate." As a general term, it covers all forms of garden management, but in ordinary use it refers to intensive commercial production. In terms of scale, horticulture falls between domestic gardening and field agriculture, though all forms of cultivation naturally have close links (Source: Herklots, Geoffrey A.C. et al, 2022). Available at https://www.britannica.com/science/horticulture. Accessed date on 27 January 2023.

33. Actually, they are growing several varieties of vegetables such as choy sum, basil leaf hot, bas leaf, cucumber, red chili, lemon grass leaf, spring onion, eggplant, small chili red, small chili green, papaya, mango, galangal, turmeric, turmeric white, Khmer plai, sweet potato, pumpkin, bitter melon, morning glory, etc. In these practices of vegetables farming, some of these ethic people have been trained either by Non-Governmental Organization (NGO) such as PDA, CIC, CEDAC, GAA, PLAN, etc. or provincial department of agriculture, forestry and fisheries (PDAFF). Mostly, they grow for their household consumption while some of them have been growing for selling inside this village. For selling, the prices of vegetables such as choy sum, morning glory, bok choy and sweet potato are 4000, 3000, 3500 and 5000 riels, respectively. In average, they earn approximately 13200 riels per household per month. In addition, in terms of economic, they earn between 100000 to 300000 riels from vegetables farming practices.

Photo 3.5: Vegetable farming production in Psang IC village

34. Practically, they are using the well as the source of their vegetables farming. Mostly, they have a well inside their family. Additionally, **Sesan river** is another source of the agricultural farming irrigation inside this village while there are many other streams and lake as well. However, they did not use them to cultivate feasible horticulture crops.

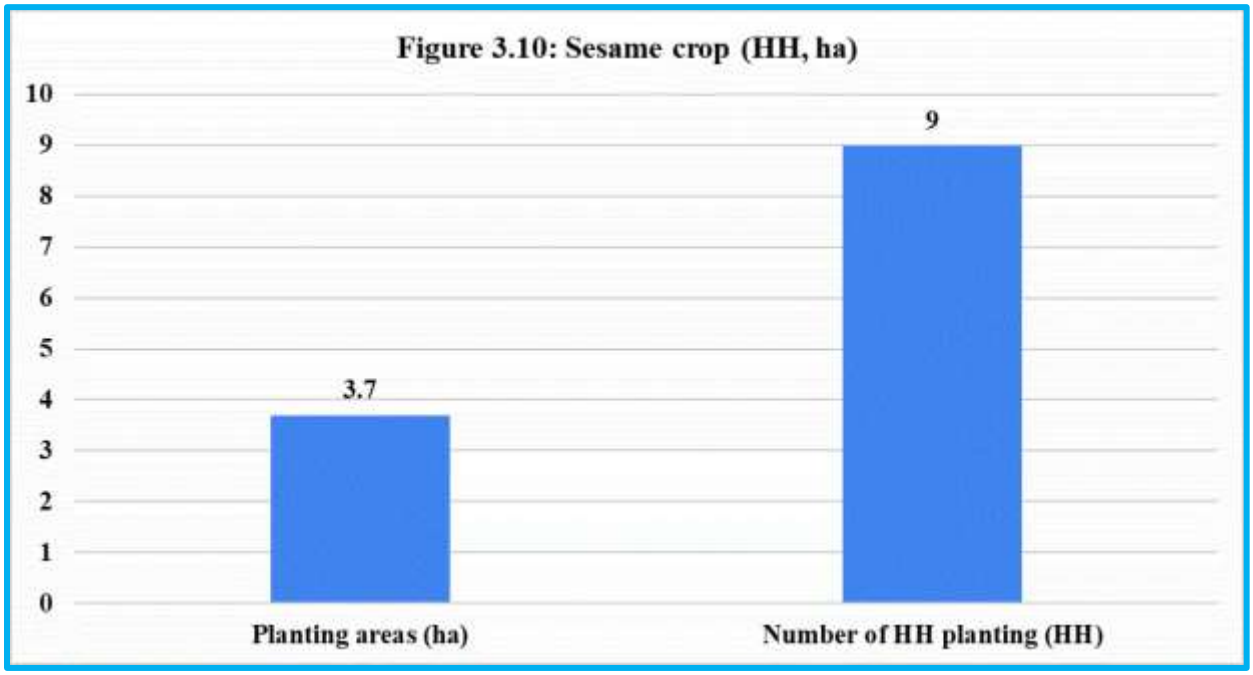
35. For details of every household plant the vegetable is attached in the annex 4.5 below. Based on the interview and oral observation, the Prov ethic people living in **Psang IC village** has planted few tropical fruits such as mango, coconut, citrus, milk fruit, etc. As normal, they plant them from one to five trees only.

Photo 3.6: Water sources for agricultural farming production

36. According to the cultivation practices that they know and practice today, growing vegetables, fruits, farming and other agriculture, they use natural fertilizers from manure and compost, but they do not use chemical fertilizers and pesticides. So, they rarely spend money to buy the agricultural inputs such as pesticides and chemical fertilizers.

3.2.6 Sesame Crop

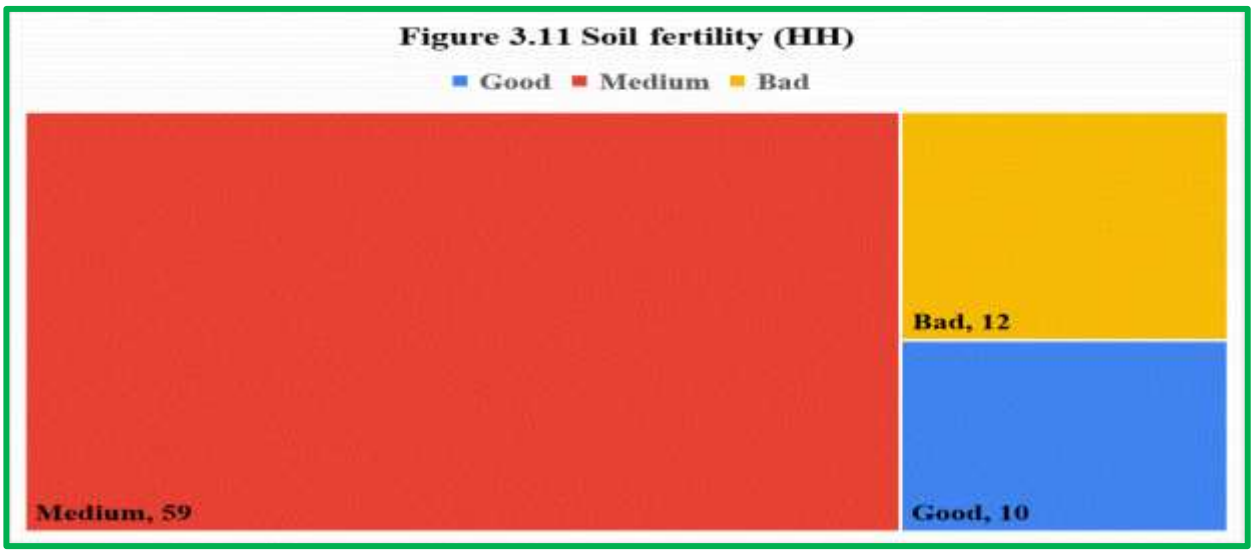
37. Refer to the interviewed questionnaires recorded that Prov ethic people in **Psang IC village** has been cultivating sesame crop as a source of livelihood and income making. As mentioned in the records, there are approximately 3.7 hectares of sesame crop plantation areas, particularly, there are about 09 HHs planted sesame crop as stated in the figure 3.10 below. Normally, it was planted within the upland paddy/rice fields in accordance to the interview. Experientially, the price of sesame crop is between 4000 to 5000 riels per kilogram as they had sold previously. Moreover, they can earn from 386000 riels per household in average per season of the nine household. Annex 4.6 shows about the list of family planting sesame.



3.2.7 Impacts on Crop Production

3.2.7.1 Soil Fertility

38. Soil fertility and plant nutrition encompasses the management of essential elements necessary for plant growth, typically to achieve selected management objectives even though soil fertility plays a vital role in natural systems of plant production for human uses (e.g., food, feed, fibre, energy, and landscape esthetics)[12]. An element is considered essential if it is required for plant metabolism and for completion of the plant's life cycle[13]. Typically, 17 elements are considered to meet these criteria and they are divided into macro-nutrients and micronutrients.



[12] McGrath, J. M., Spargo, J., & Penn, C. J. (2014). Soil Fertility and Plant Nutrition. In Plant Health (pp. 166-184). Elsevier. https://doi.org/10.1016/B978-0-444-52512-3.00249-7.

[13] Havlin, J.L., Beaton,J.D., Tisdale,S.L., 2005. Soil Fertility and Fertilizers: An Introduction to Nutrient Management. Upper Saddle River, NJ: Pearson Prentice Hall. Epstein, E., Bloom,A.J., 2005. Mineral Nutrition of Plants: Principles and Perspectives. Sunderland, MA: Sinauer Associates.

39. According to the interview on the soil fertility of this village, 59 of interviewees rated the soil fertility of their village in Medium, and 12 of interviewees rated the soil in poor quality as well as there are only 10 interviewees answered that their soil fertility is good as expressed in the figure 3.11 above. In addition, it is considerably aligned with their yields of upland paddy/rice crop and cashew nut as well. As per conclusion, the soil status shall have been amended properly in order to provide a better technical support for their crops production, horticultural production and so on.

3.2.7.2 Challenges

40. In order to get to know the existing challenges among the ethic people of **Psang IC village**, the ranking/rating questions[14] is used to gather the information from the respondents. In this beneficiary profile survey, it is rated from 1-5, starting from **"never come across"** to **"strongly come across"**, respectively, by using **Likert scale measurement**[15].

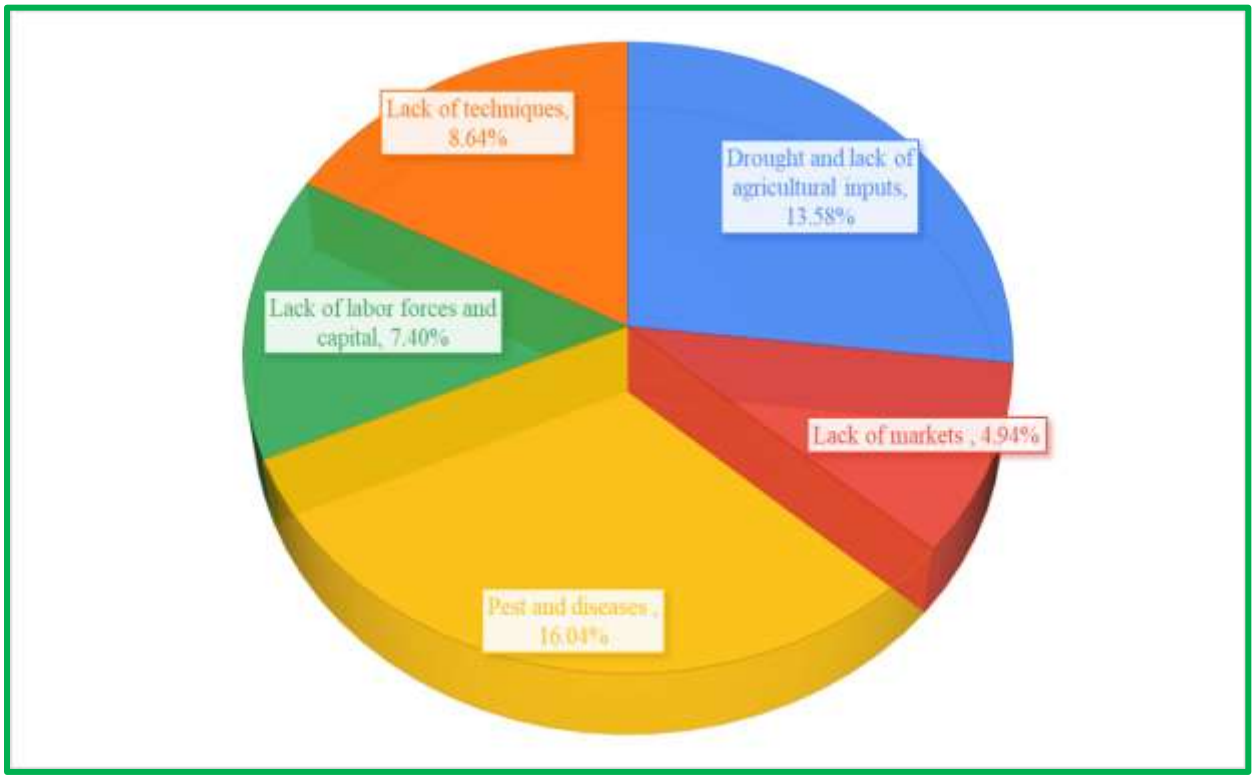


Figure 3.12: Challenges - Strongly come across (%)

[14] Rating is a commonly used traditional method of performance appraisal. Under this approach, an employee is numerically rated from either 1-10 or 1-5 on various job performance criterions like attendance, attitude, performance, output, sincerity, dependability, initiative, etc.

[15] A Likert scale is a type of rating scale, often found on survey forms or questionnaires, that measures how people feel about something which can be useful in many different situations. A Likert scale, named after its inventor, the American social scientist ***Rensis Likert***, is the most widely used psychometric approach to ask the audience about their opinion or feeling in survey research using usually 5 or 7 answer options range. Respondents can give a negative, neutral or positive response to a statement.

41. Figure 3.12 above is showing that among the total of Prov ethic people in **Psang IC village**, there are approximately 16.04% (13 HHs), 13.58% (11 HHs), 8.64% (7 HHs), 7.40% (6 HHs) and 4.94% (4 HHs) have been dramatically come across several challenges such as pest and diseases, drought and lack of agricultural inputs, lack of techniques, lack of labour forces and capital, lack of markets, respectively. From these results, it means that they are facing the invasion of pest onto their agricultural production severely and the diseases invaded their crops strongly last year. According to the interview and refer to the agricultural production's yield, the respondents said that they have harvested with less outputs than many years ago too.

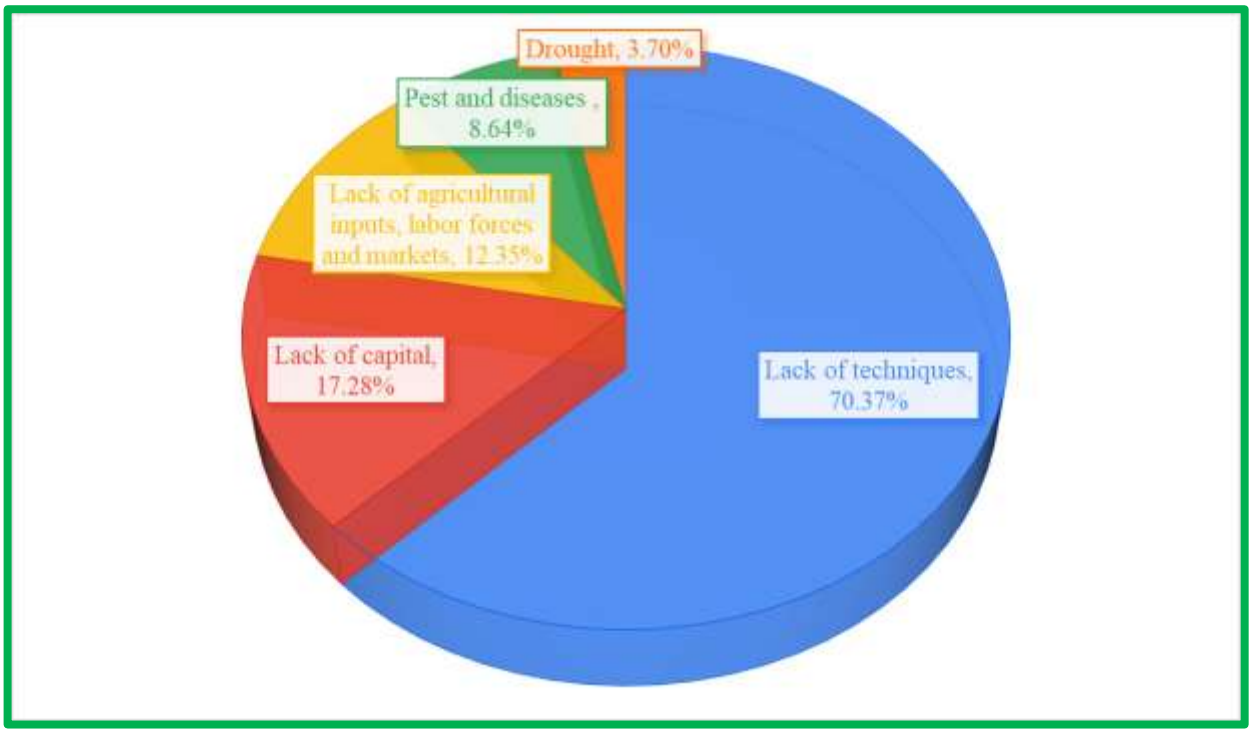


Figure 3.13: Challenges - Strong come across (%)

42. Similarly, Figure 3.13 above has been shown that among the total of Prov ethic people in Psang IC village, there are approximately 70.37% (57 HHs), 17.28% (14 HHs), 12.35% (10 HHs), 8.64% (7 HHs) and 3.70% (3 HHs) have moderately been come across several challenges such as lack of techniques, lack of capital, lack of agricultural inputs and labour forces as well as markets, pest and diseases, drought, respectively. As mentioned in the paragraph 42, Prov ethic people in Psang IC village has been living under an improper condition of technical supports considerably in applying new technology of modern agricultural practices[16] which includes climate smart agriculture, conservation agriculture, modern irrigation system application (drip

[16] Modern agriculture is an ever-changing approach to agricultural innovations and farming practices that helps farmers increase efficiency and reduce the number of natural resources needed to meet the world's food, fuel and fiber demands. Modern farming practices allow farmers to increase productivity while decreasing environmental impact.

irrigation and sprinkler irrigation system), etc. In addition, capital is a fundamental component of agricultural production, and the accumulation of capital is key to growth in agriculture and the process of development. However, they are facing this problem as second major challenges while the LASED III provides the revolving fund for supporting. So, there should have been adequately matched them with this program to make sure that they can improve their agricultural production in terms of livelihood and economic development as well.

43. While at the same time, Figure 3.14 below has been selectively shown that among the total of Prov ethic people in Psang IC village, there are approximately 67.90% (55 HHs), 65.43% (53 HHs), 29.63% (24 HHs), 28.40% (23 HHs), 22.22% (18 HHs), 12.35% (10 HHs) and 3.70% (3 HHs) have mediumly been come across several challenges such as lack of labour forces, lack of capital, lack of agricultural inputs, pest and diseases, lack of markets, lack of techniques, drought, respectively. According to the interview all of them, their children are young and they cannot assist their family to work in agricultural activities such as vegetation, fishing and raising animals as well as housework. Furthermore, more than 57.75 percent of their dependent children are studying at the primary level, while each family has an average of less than one hectare of farmland. Related to the capital, they mostly do not face such any issue because they mostly spend their spare time to work in other as non-agriculture farming to get more incomes to support their daily life and the whole family.

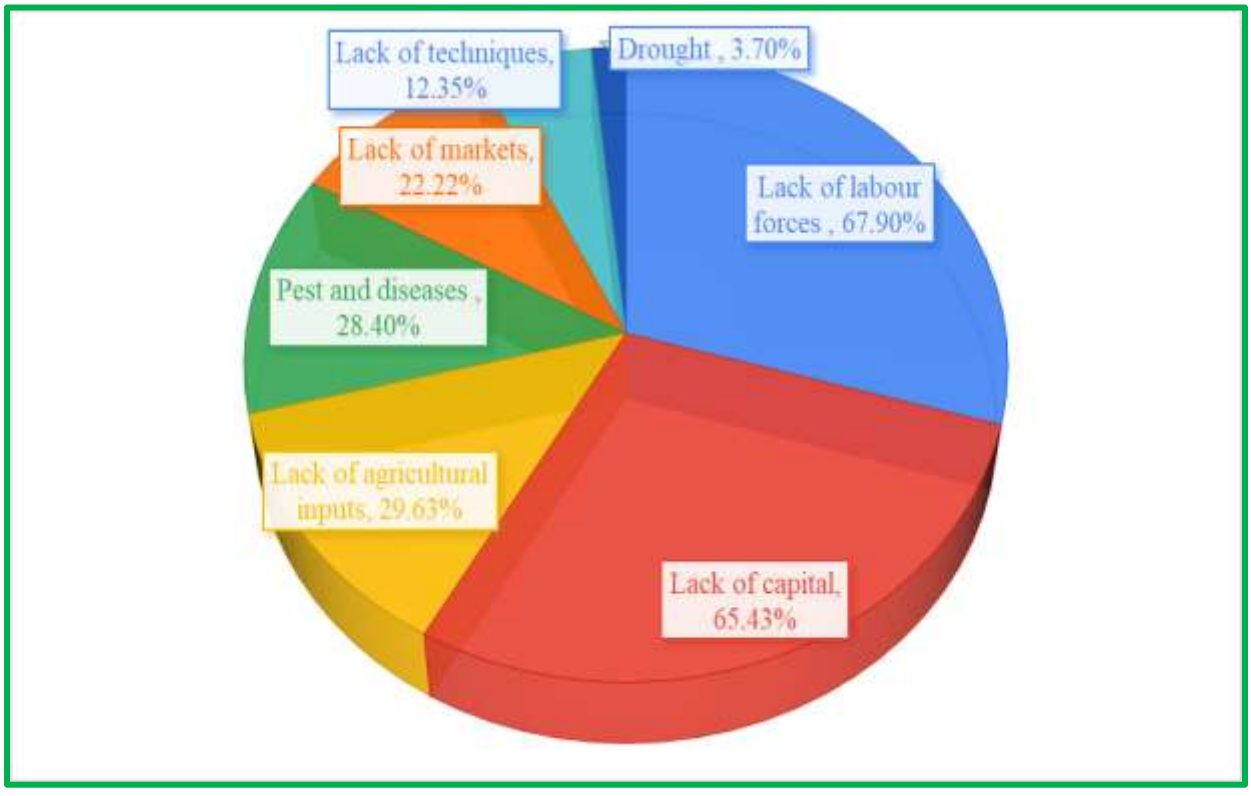


Figure 3.14: Challenges - Medium come across (%)

44. While at the same time, Figure 3.15 below has been selectively shown that among the total of Prov ethic people in Psang IC village, there are approximately 72.84% (59 HHs), 60.49% (49 HHs), 46.91% (38 HHs), 44.44% (36 HHs), 12.35% (10 HHs), 9.88% (8 HHs) and 8.64% (7 HHs) have slightly been come across several challenges such as drought, lack of markets, pest and diseases, lack of agricultural inputs, lack of labour forces, lack of capital, lack of techniques, respectively.

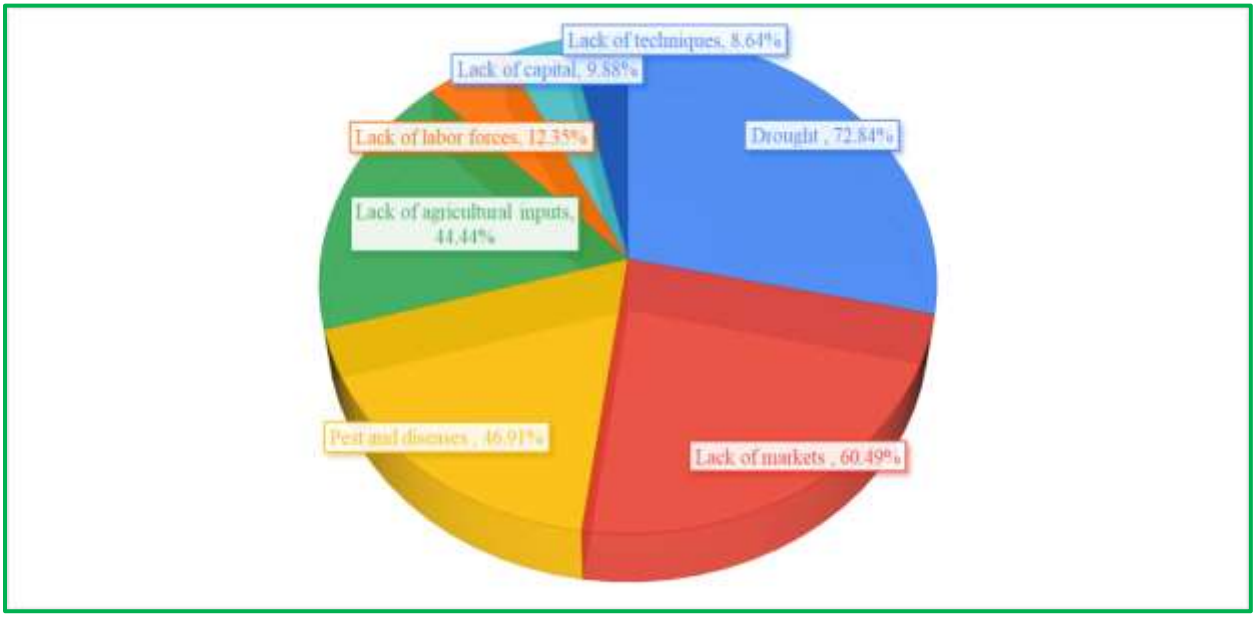


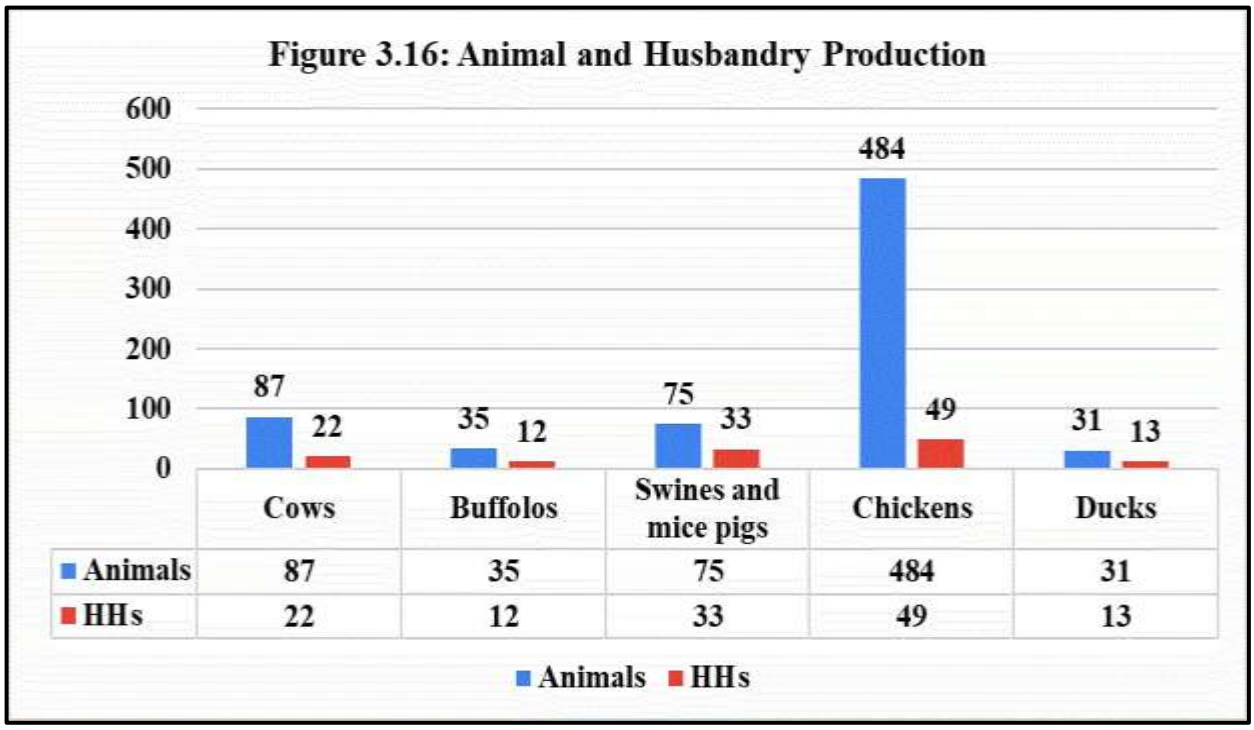
Figure 3.15: Challenges – Slightly come across (%)

45. However, according to the interview, there are approximately 5 HHs equals to 6.17% answered that they never come across the natural disaster in such the drought as an example.

3.2 Animal and Husbandry Production Potential

3.2.1 Animal Production Statistic

46. According to the interview with all 81 HHs in Psang IC village, it found that, besides the potential crops production mentioned above, there are approximately 22 HHs among them equals to 27,16% who have been raising cow animals while there are approximately 12 HHs among all of the total households interviewed equals to 14.81% who are feeding buffalo animals. In addition, the swine and mice pig production are estimated approximately 75 pigs to be raised among 33 HHs equals to 40.74%. Moreover, the poultry and husbandry production are noticed to be raised as well in such amounting nearly 484 (49 HHs) and 31 (13 HHs) of chickens and ducks, respectively. The figure 3.16 below shows about the animal and husbandry production in Psnang IC village in accordance to the interview. For details of every household raises the animal's production is attached in the annex 4.7 below.



47. According to the interview with all of 81 respondents, it is found that the turnover into their family's economic from the animals and husbandry production is assumed approximately 31,623,000.00 riels (Equals to 7,712.93 USD[17]) as expressed into the animals' categories of cows (16,400,000.00 riels or 4,000.00 USD), buffalos (8,500,000.00 riels or 2,073.17 USD), swines and mice pigs (4,000,000.00 riels or 975.61 USD) as well as chickens (2,723,000.00 riels or 664.15 USD) while the production's expenditure is about 10,870,000.00 riels only.

3.2.2 Challenges

48. As mentioned in the paragraph 40 above, Likert scale measurement is used to rate the perceptions of all respondents in Psang IC village in terms of animal production's challenges occurred previously among their families. Logically, it is rated from 1-5, starting from "never come across" to "strongly come across", respectively.

49. Figure 3.17 below is showing that among the total of Prov ethic people in Psang IC village, there are approximately 51.85% (42 HHs), 20.99% (17 HHs), 18.52% (15 HHs), 9.88% (8 HHs), 7.41% (6 HHs), 6.17% (5 HHs) and 4.94% (4 HHs) have been strongly come across several challenges such as lack of techniques, pest and diseases, lack of agricultural inputs, lack of capitals, lack of markets, drought and lack of labour forces, respectively. From these results, it means that they are currently raising animals naturally and traditionally without any new application technology in terms of animal and livestock production. Meanwhile, livestock

[17] This rate is applied on January 30th, 2023 by using the national bank of Cambodia's standard exchange rate. It is available at: https://www.nbc.org.kh/download_files/economic_research/off_ex_rate_kh/OER_Cross%20Rate%2030123.pdf.

technology can enhance or improve the productivity capacity, welfare, or management of animals and livestock. Additionally, those new techniques are included feed safety as well.

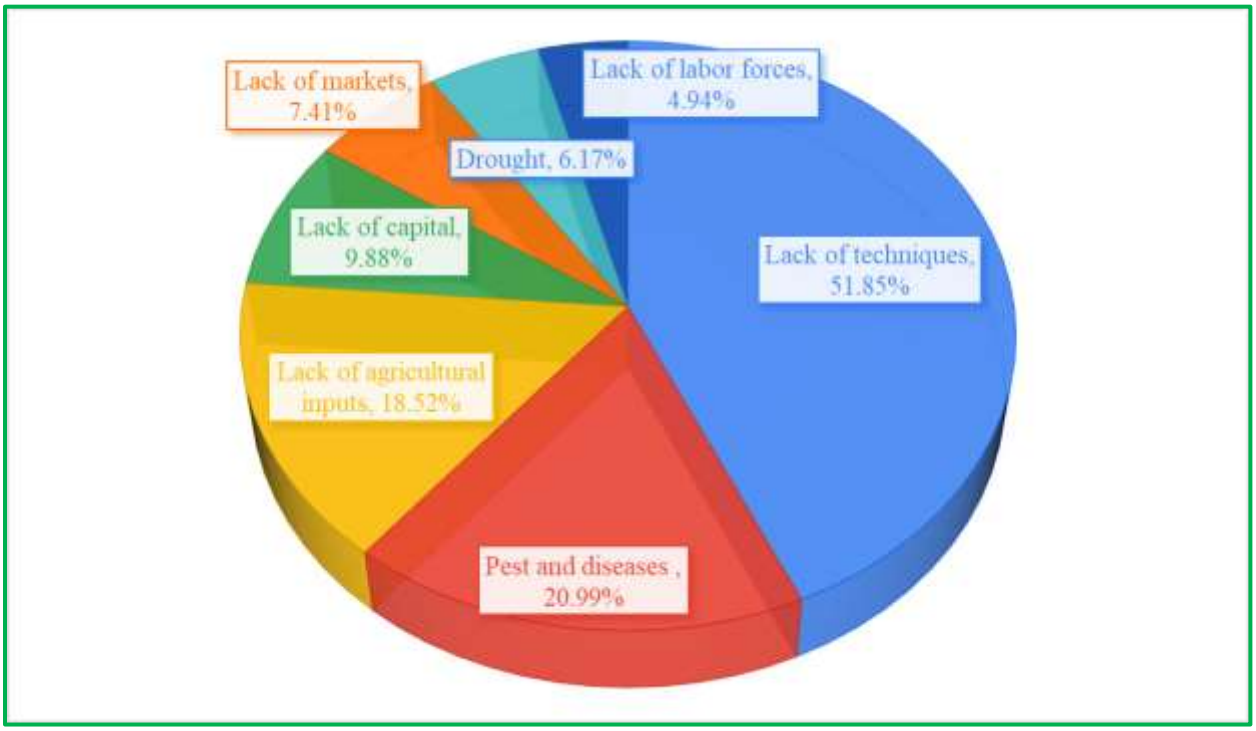


Figure 3.17: Challenges - Strongly come across (%)

50. Figure 3.18 below is showing that among the total of Prov ethic people in Psang IC village, there are approximately 17.75% (16 HHs), 18.52% (15 HHs), 14.81% (12 HHs), 12.35% (10 HHs), 11.11% (9 HHs), 7.40% (6 HHs) and 4.94% (4 HHs) have been strong come across several challenges such as lack of capitals, lack of labour forces, lack of techniques, lack of markets, lack of agricultural inputs, drought and pest and diseases, respectively. It is truly that they are living in the poorly farming situation without funds to increase their production.

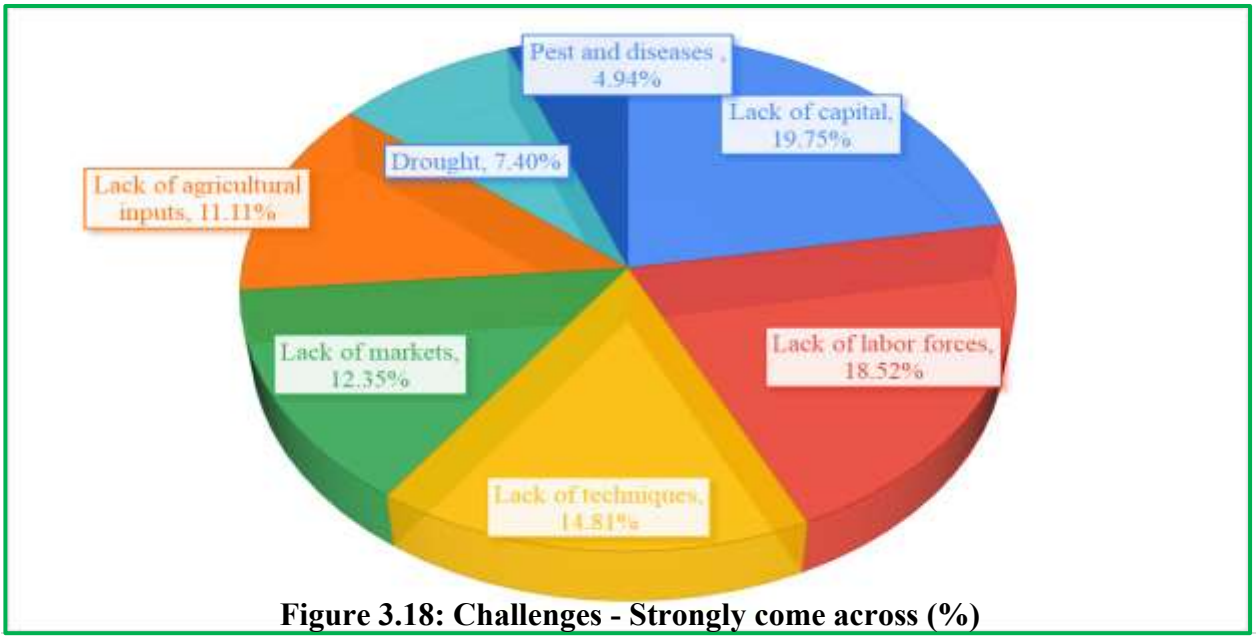


Figure 3.18: Challenges - Strongly come across (%)

51. Figure 3.19 below is showing that among the total of Prov ethic people in Psang IC village, there are approximately 64.20% (52 HHs), 32.10% (26 HHs), 29.63% (24 HHs), 25.93% (21 HHs), 22.22% (18 HHs), 11.11% (9 HHs) and 9.88% (8 HHs) have been mediumly come across several challenges such as lack of capitals, lack of markets, lack of labour forces, pests and diseases, lack of techniques, lack of agricultural inputs, and drought, respectively.

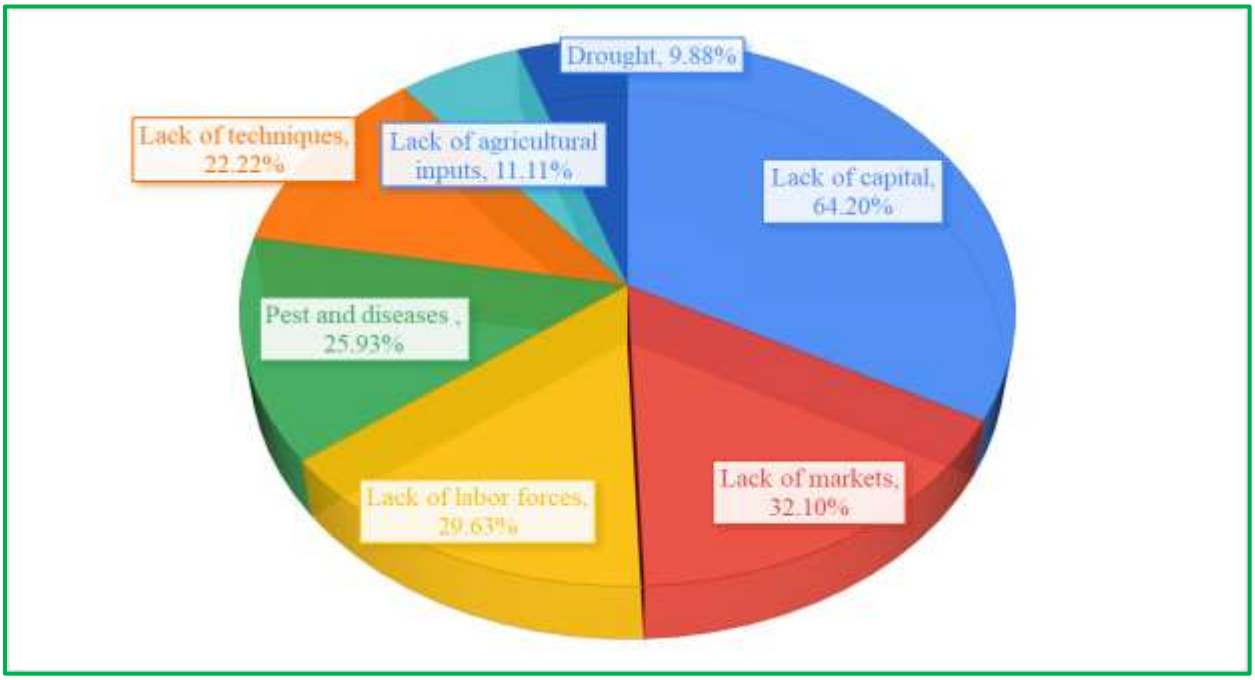


Figure 3.19: Challenges – Medium come across (%)

52. Figure 3.20 below is showing that among the total of Prov ethic people in Psang IC village, there are approximately 69.14% (56 HHs), 56.79% (46 HHs), 46.91% (38 HHs), 45.68% (37 HHs), 9.88% (8 HHs), and 4.94% (4 HHs) have been slightly come across several challenges such as drought, lack of agricultural inputs, lack of labour and pest and diseases, lack of markets, lack of techniques and lack of capital, respectively.

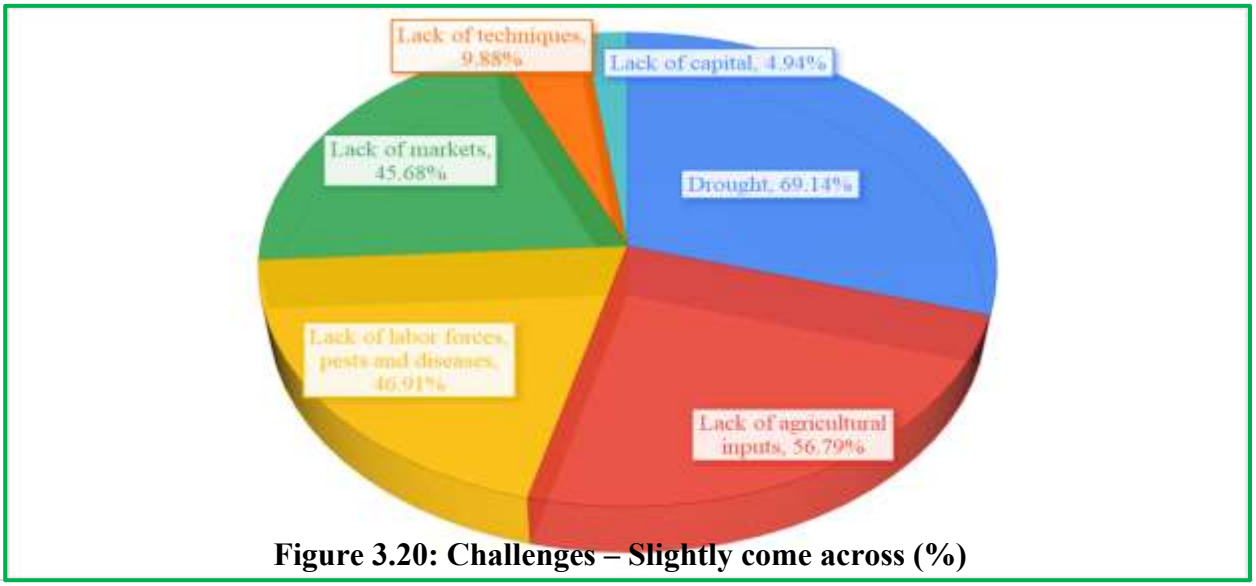


Figure 3.20: Challenges – Slightly come across (%)

53. However, according to the interview, there are approximately 7.40% (6 HHs), 2,47% (2 HHs) and 1.23% (1 HH) answered that they never come across the natural disaster in such the drought, lack of agricultural inputs and markets, lack of labour forces, techniques, capitals and pest and diseases, respectively as shown in the figure 3.21 below.

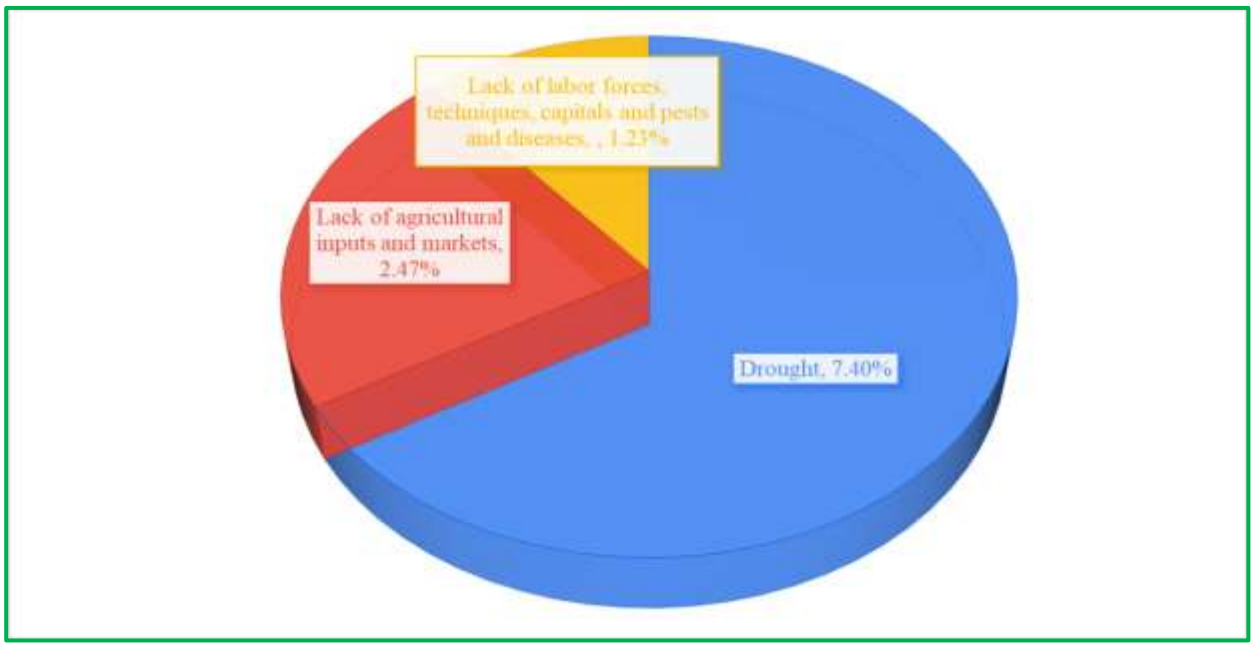


Figure 3.21: Challenges – Never come across (%)

3.3 Fishery and Aquaculture Potential

3.3.1 Traditional Fishery[18] Practices

54. According to the interview with all of 81 respondents, it is found that there are approximately 47 HHs equals to about 58.02% used to fish or fish traditionally inside their village while only 34 HHs equals to 41.98% responded that they rarely catch fish inside their village. Significantly, they normally spend between 20,000.00 to 50,000.00 riels on the fishing materials for traditional fisheries. Figure 3.22 below shows about the families who always catch fishes from the river, lake and streams in this village.

3.3.2 Aquaculture Practices

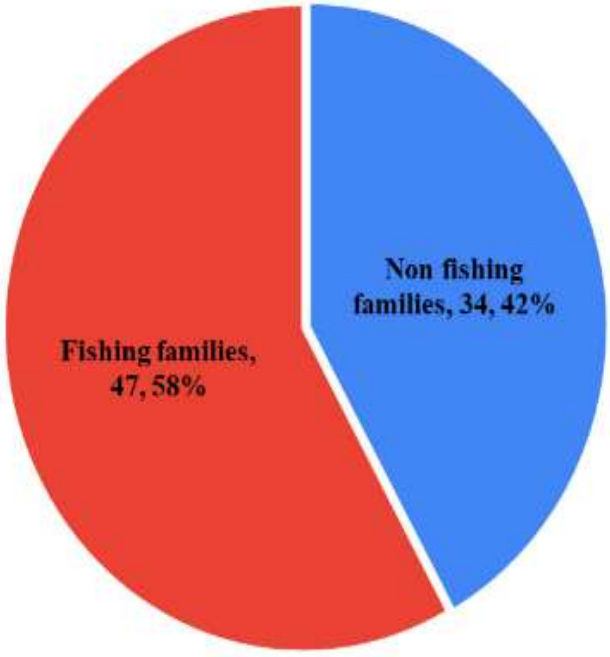
55. Through the interview and oral observation within the village, it is found that there are few families who have been doing the aquaculture (cat fish aquatic fishing) in this village. Actually, they have been trained of this aquatic practice by the non-governmental organizational as mentioned in the paragraph 33 above of this report. Once they were questioned, intentionally,

[18] Traditional fisheries involving fishing households (as opposed to commercial companies), using relatively small amount of capital and energy, relatively small fishing vessels, making short fishing trips, close to shore, mainly for local consumption. In some communities, traditional fishing community is a defined group of people who share identity and attachment toward one another and interact on an ongoing basis to perform activities along the fisheries value chain based on experiential knowledge accumulated over time and passed along generations (Berkes 2001; Johannes 2003; McGoodwin 2001).

that do you want to raise the fishes? Most of them said that they do not want at all because of the technical difficulty, the cost of fishes' feed and so on. On the other hands, some of them responded that they want to raise the fishes in order to get more incomes to support the family if the LASED III project support them and provide relevant supports. Picture 3.7 below shows about one family among the 81 HHs is raising the cat fish in the plastic net.

Picture 3.7: Cat fish aquatic application in Psang IC village

Figure 3.22: Traditional fishery practices in Psang IC village (HH, %)



3.4 Agricultural Cooperative, Producer Group and Revolving Funds Group

56. According to the interview with those 81 HHs, it is found that there is neither agricultural cooperative, producer group nor revolving funds group establishment. However, some of them expressed their interest to form up the producer group in terms of markets supply in large volume if the project enables them to match with local markets with suitable prices through the acceptable mechanism such as contract farming implementation mechanism as an example.

3.5 Markets and Markets linkages

3.5.1 Contract Farming Implementation

57. As per interview all of them, it is found that both simple contract application and formal contract farming implementation are not applied yet in this **Psang IC village**. In addition, either the training or orienting forum has never provided by both national institutions and PDAFF itself. Therefore, they should have been encouraged to be well disseminated about relevant legal documents of the contract farming implementation mechanism in terms of markets linkages promotion to direct buyers domestically.

3.5.2 Existing Markets

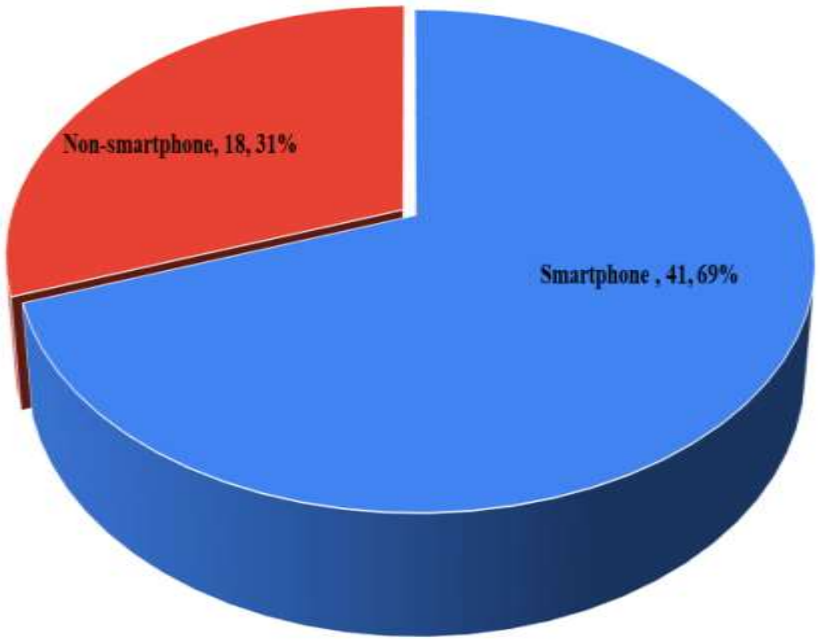
58. Nowadays, they are selling their agricultural produces to the domestic middleman who have been collected the products to sell to the processing companies at the town and to the middleman of the neighbouring countries. As their practices, the middleman comes to pick up the cargos to their either warehouses or companies directly. In addition, some of them are selling their produces by themselves inside the village by using their own vehicles.

3.6 Extension and ICT

59. According to the interview, it is found that there are approximately 49 HHs equals to about 60.49% who have had the mobile phones while about 32 HHs equals to 39.51% do not have the mobile phone. Totally, their mobile phone is calculated approximately 59 phones while it is estimated about 41 smartphone equals to 50.62%. Figure 3.23 below shows about the mobile phone utilization in **Psang IC village** as per all 81 respondents interviewed.
60. However, there are approximately 16 respondents equals to 19.75% had used their mobile phones to either search or watch the videos related to the agricultural extension programs; such as crops farming, aquatic application, animal and livestock raising, etc.; even though they have used mobile phone individually. In addition, they also do not use it to figure out the market application such as ***CamAgriMarket app, Tonle Sap Mobile app, Chamka Mobile app, etc.***
61. By the way, according to the interview, it is found that there are more than 71.60% (58 HHs) who did not attend the training provided by either NGOs or governmental agency while there

approximately 28.40% (23 HHs) who used to attend the training. The trainings covered on the technical crops farming and compost fertilizer making, fish aquatic farming and livestock farming.

Figure 3.23: Mobile phone utilization in Psang IC village based on the interview



3.7 Economic Analysis[19]

3.7.1 On Farm Incomes

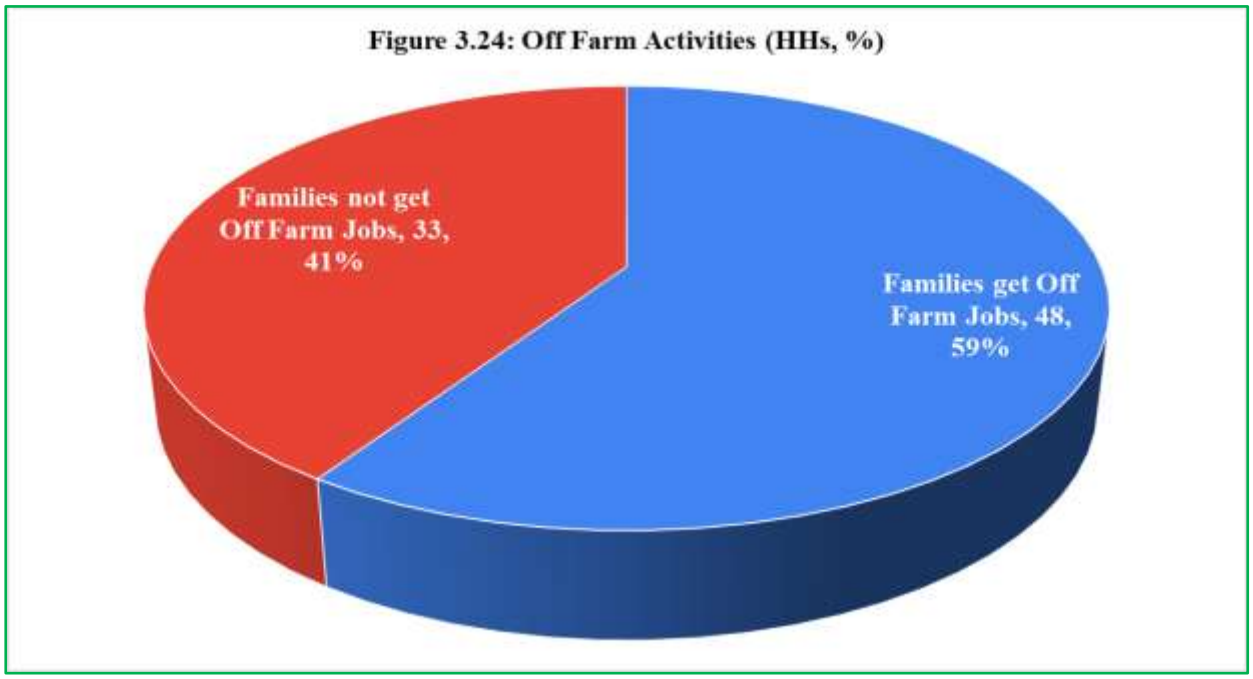
62. According to the interview of all 81 HHs, it is found that a huge income of villager in this villages come from agriculture farming activities. In fact, the total revenue from agricultural products sold last year based on the interview was approximately 119,365,000.00 riels equals to 29,113.41 USD[20] while it is also found that an average of family agricultural framing production cost and an average of family net income of this village are calculated approximately 368.52 USD and 63.29 USD, respectively and annually.

[19] Economic analysis essentially entails the evaluation of costs and benefits. Economic analysis helps us to make decentralized decisions on the appropriate choices between competing uses of resources, with costs and benefits being defined and valued so as to measure impacts of the projects on the broad development objectives of the country. (Source: Edomah, N., 2018. Economics of energy supply. Reference module in earth systems and environmental sciences, pp.1-16.)

[20] This rate is applied on January 30th, 2023 by using the national bank of Cambodia's standard exchange rate. It is available at: https://www.nbc.org.kh/download_files/economic_research/off_ex_rate_kh/OER_Cross%20Rate%2030123.pdf.

3.7.2 Off Farm Incomes

63. By the way, besides agriculture farming activities, it is found that there are about 59.26% (48 HHs) have been working in other sector assumed as non-farm jobs[21] while there are about 40.74% (33 HHs) mentioned that they did not get the non-farm jobs as stated in Figure 3.24 below.



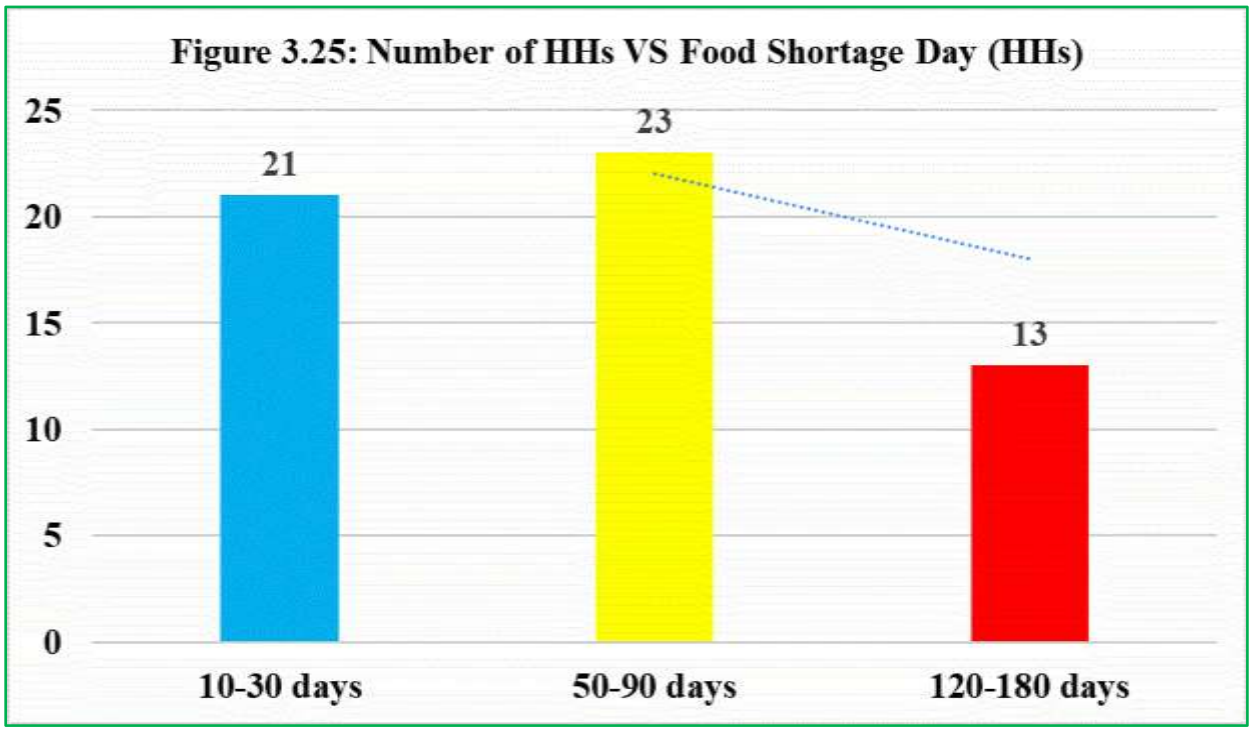
64. According to the interview, it is calculated that there are 69,170,000.00 riels equals to 16,870.73 USD was sourced from non-farm incomes while an average was about 864,600.00 riels equals to 210.88 USD, annually. This means that they can get more incomes to support their family once they are trying to work in other fields because of the potential of this area is gorgeously landscape attracted tourism. However, they still lack of the supports from national government on the specialization skills and vocational job trainings.

3.7.3 Household Food Security (HFS)

65. Regards to status of food security of this village, it was recorded 25.93% (21 HHs), 28,40% (23 HHs) and 16.05% (13 HHs) have answered that they used to face the insufficient food consumption from 10-30, 50-90 and 120-180 days, respectively. However, when they were asked that where do you get food to eat? They said that some villagers inside **Psang IC village** provided foods to them to eat and they eat nothing beside eating rice only. In addition, this is

[21] According to the non-farm jobs and incomes were selling labor to cut the farm grasses, commune clerk, village chief, commune councilor member, weaving traditional consumption materials such as Kapa for sale, wine jar making, find non-timber forest products, assist the tourists to visit the natural tourism at ***Vireak Chey national park***, boat transporter, selling foods and other using materials, construction workers and the gift provided by their marriage children.

just their assumption responses and the reality situation might be less or more than that beside the actual of their daily life. Figure 3.25 shows about the number of HHs vs food shortages day.

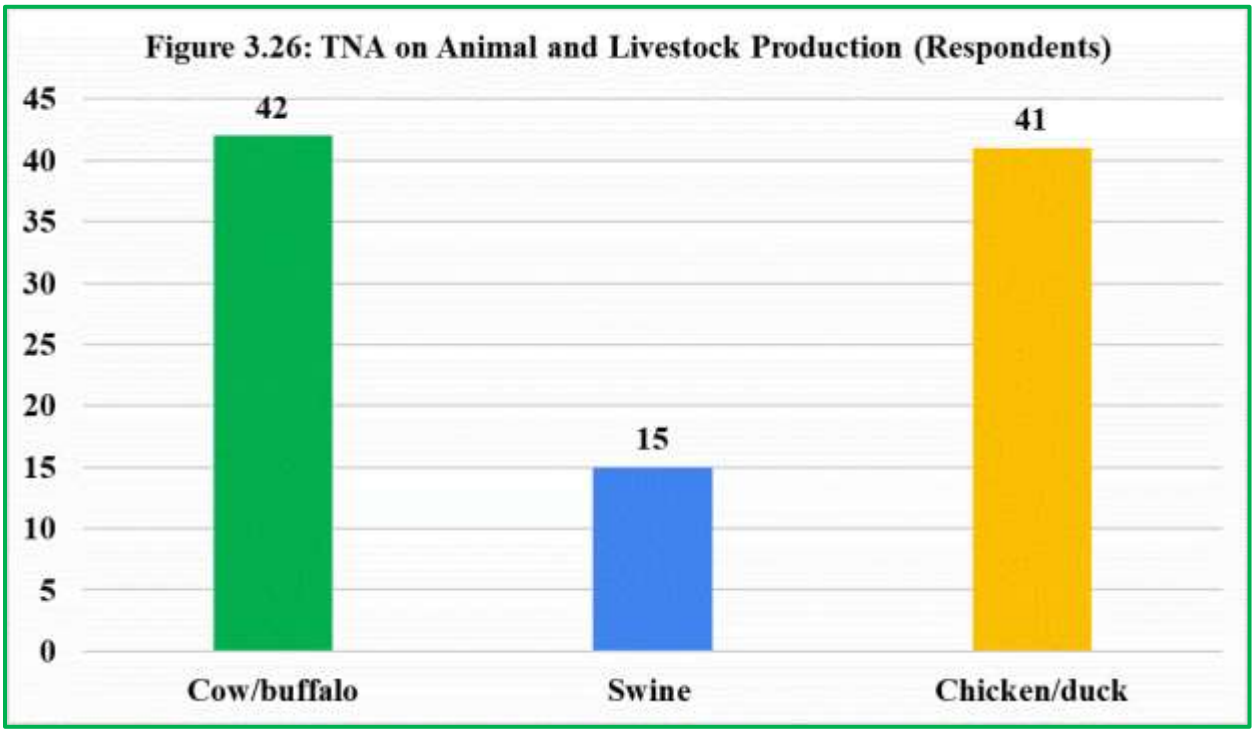


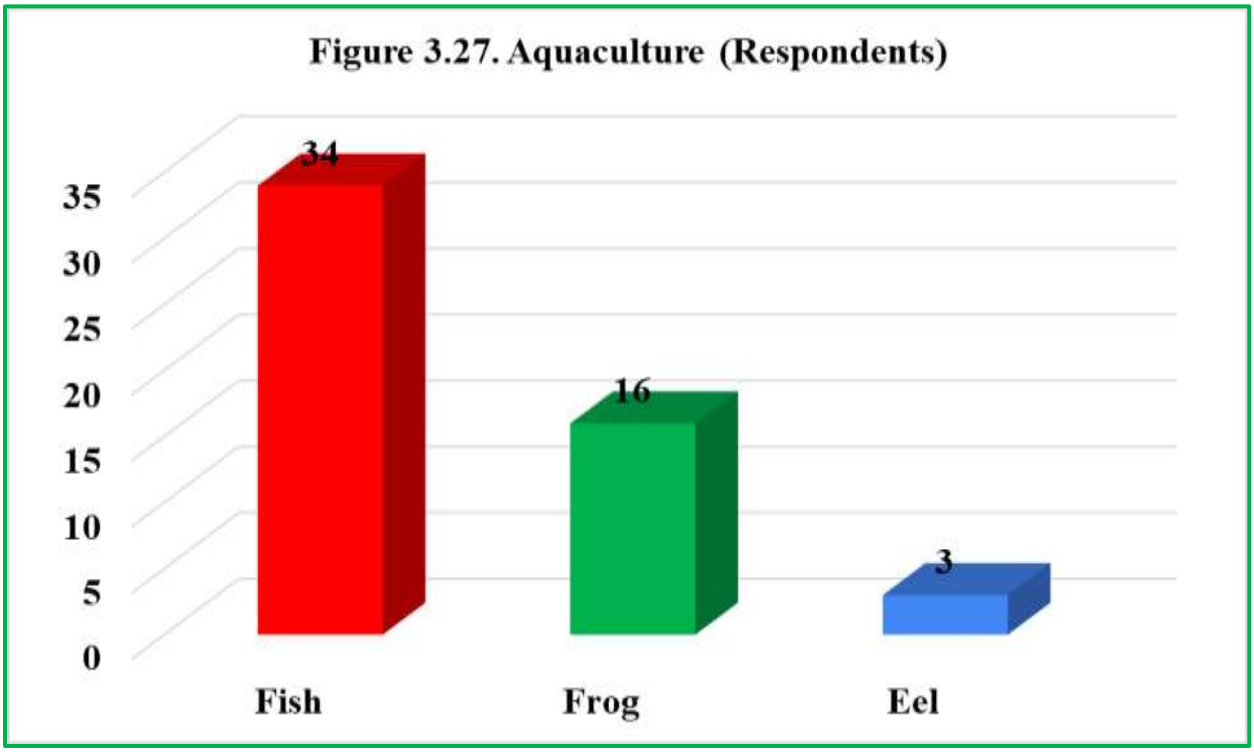
3.8 Training Needs Assessment[22] (TNA)

66. In this beneficiary profile survey, the TNA is divided into five categories such as (i) the assessment on the animal and livestock production, (ii) the assessment on the fishery and aquatic production, (iii) the evaluation on the crops production, (iv) the assessment on the nutrition sensitive agriculture, and (v) the assessment on the contract farming implementation. For details of TNA questionnaires is attached in the annex 4.8 below of this report.

67. According to the results of interview of all 81 respondents, it is found that, for the animal and livestock production, there are 42, 15 and 41 respondents want to get the training on cow/buffalo, swine and chicken/duck raising production, respectively, as stated in the figure 3.26 below. Remarkably, the technical trainings shall have been covered on animals raising, breeding, feeds making, vaccination, diseases treatment, cage preparation, business planning preparation and other technical supports. In addition, each respondent is able to answer and chose more than one option during the interview.

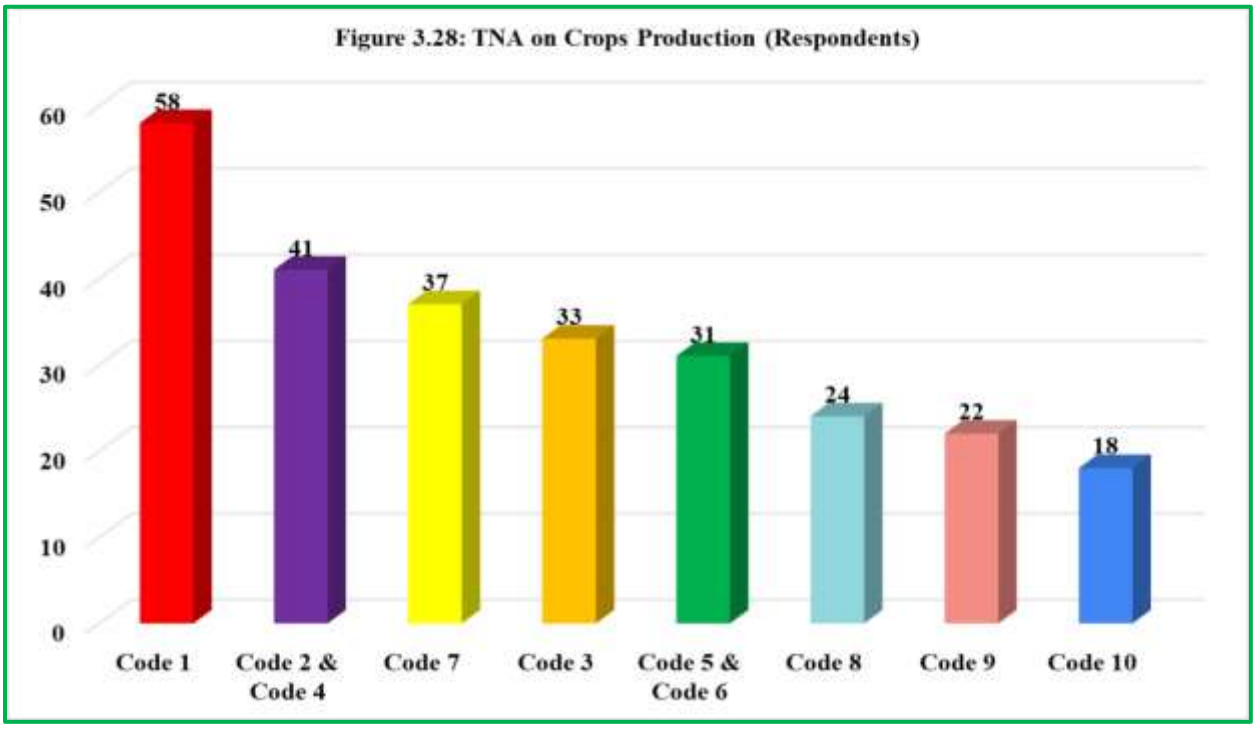
[22] "Training Needs Assessment" (TNA) is **the method of determining if a training need exists and, if it does, what training is required to fill the gap**. TNA seeks to identify accurately the levels of the present situation in the target surveys, interview, observation, secondary data and/or workshop. Available at: https://www.jica.go.jp/project/cambodia/0601331/pdf/english/3_TNA_01.pdf.



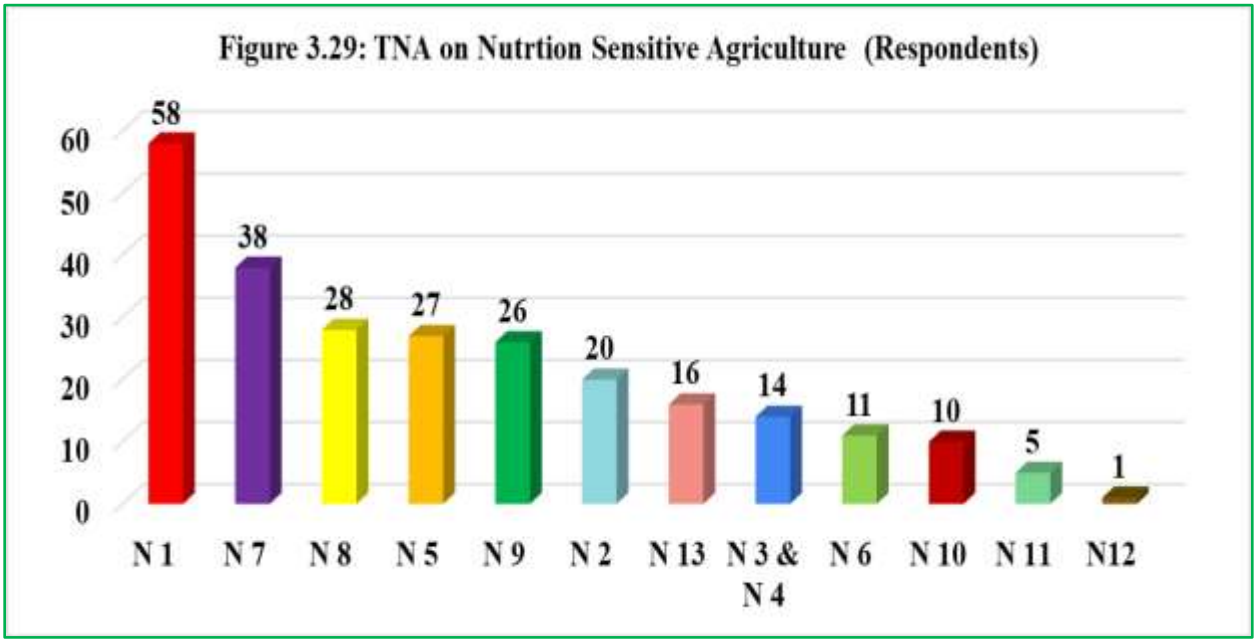


68. Figure 3.27 above shows about the TNA on aquaculture, according to the results of interview of all 81 respondents. As results, it is found that there are 34, 16 and 3 respondents want to get the training on fish, frog and eel, respectively. Remarkably, the technical trainings shall have been covered on animals raising, breeding, feeds making, vaccination, diseases treatment, cage preparation, business planning preparation and other technical supports. In addition, each respondent is able to answer and chose more than one option during the interview.

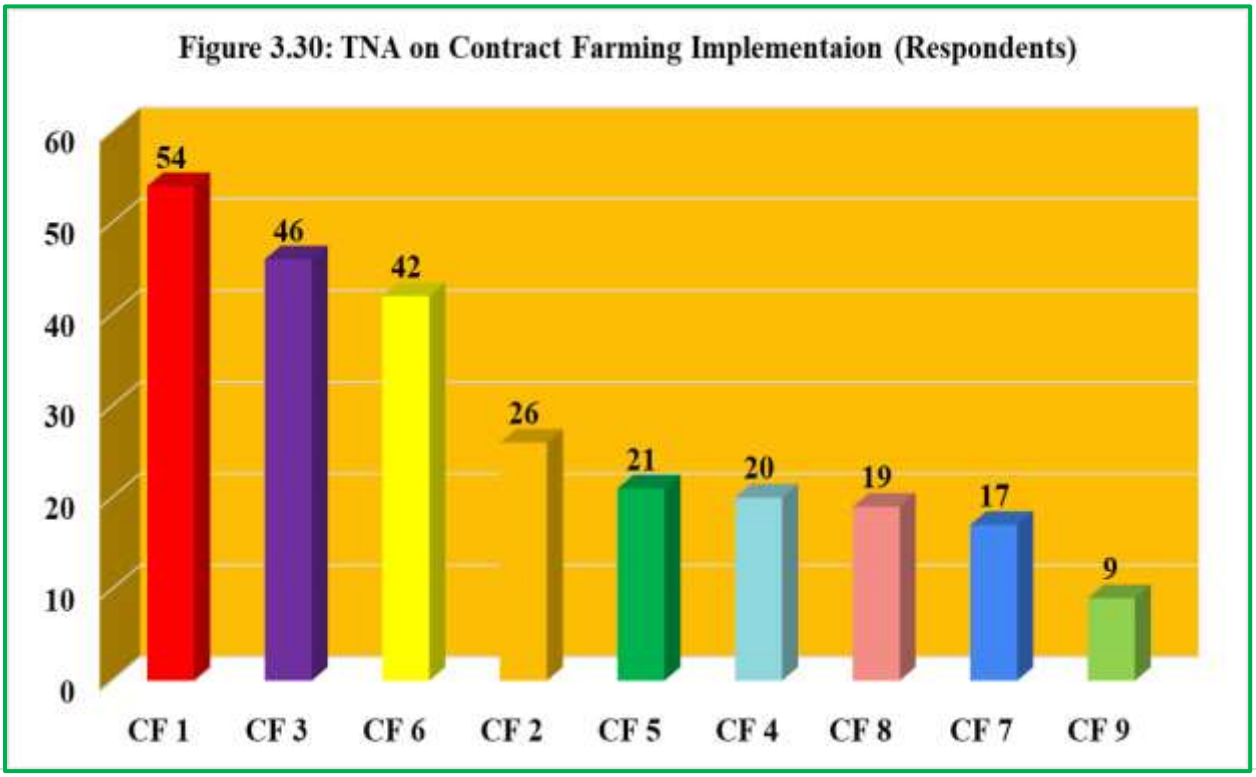
69. For TNA on crops production, it is orderly coded for each specific title from **Code 1** to **Code 10**. According to the interview with all 81 HHs on the TNA of crops production, it is found that the **Code 1 & Code 2**, **Code 7, Code 3, Code 5** & **Code 6, Code 8, Code 9 and Code 10** have been rationally rated as following results **58, 41, 37, 33, 31, 24, 22 and 18** responses, respectively. Figure 3.28 indicates about the the TNA on crops production based on the interview. Noticeably, each respondent is able to answer and chose more than one option during the interview.



70. For TNA on nutrition sensitive agriculture (NSA), it is orderly coded for each specific title from **N 1** to **N 13**. According to the interview with all 81 HHs on the TNA of NSA, it is found that the **N 1, N 7, N 8, N 5, N 9, N 2, N 13, N 3 & N 4, N 6, N 10, N 11 and N 12** have been rationally rated as following results **58, 38, 28, 27, 26, 20, 16, 14, 11, 10, 5 and 1** responses, respectively. Figure 3.29 indicates about the the TNA on NSA based on the interview. Noticeably, each respondent is able to answer and chose more than one option during the interview.

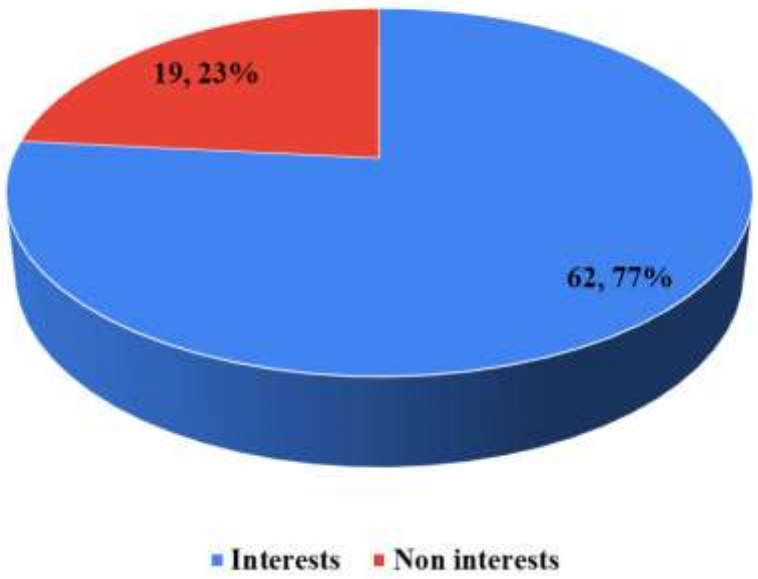


71. For TNA on Contract Farming (CF) implementation, it is orderly coded for each specific title from **CF 1** to **CF 13**. According to the interview with all 81 HHs on the TNA of CF implementation, it is found that the **CF 1, CF 3, CF 6, CF 2, CF 5, CF 4, CF 8, CF 7 and CF 9** have been rationally rated as following results **54, 46, 42, 26, 21, 20, 19, 17 and 9** responses, respectively. Figure 3.29 indicates about the the TNA on CF implementation based on the interview. Noticeably, each respondent is able to answer and chose more than one option during the interview.



72. However, even most of them are interested in joining agricultural technical training, there are approximately 23.46% (19 HHs) did not interests to get or request the agricultural technical training from the LASED III project while there are about 76.54% (62 HHs) do interests to get and request the agricultural technical trainings as stated in paragraph 67, 68, 69, 70 and 71 above for several reasons such as the elder ages, lack of capitals, lack of labor forces, etc. Figure 3.31 below shows about the ***Interests Vs Non-Interests on Agricultural Technical Training*** received through the interview.

Figure 3.31 Interests Vs Non Interests on Agricultural Technical Training



3.9 Conclusion

73. After having interviewed with all 81 respondents and having compiled of all information into this beneficiary report, it is vitally and briefly concluded as following that (1) the potential crops production such as upland paddy/rice (Total planting areas 78.5 ha, total yields 58.458 tons, average land holding 0.969 ha/HH, average yield 0.722 ton per hectare), cashew tree (Total planting areas 92 ha, total yields 17.97 tons, harvested areas last year 51.5 ha, average land holding 1.14 ha/HH) , sesame cash crop (total 3.7 ha) and vegetables, (2) the potential animals and livestock production such as cows (87 heads), buffalos (35 heads), swine and mice pigs (75 heads), chickens (484 heads) and ducks (31 heads), and (3) the potential of water sources for agricultural farming and production (**Sesan river, lake and streams)**.

74. For the poverty line in **Psang IC village**, it is economically assumed that they are living under poverty line[23] because of their daily income (in total 6,508.42 riels/day/HH (equals to 1.59 USD/day/HH) which is calculated based on on farm (4,139.59 riels/day/HH) and off farm (2,368.84 riels/day/HH)) is less than 2.67 USD per day per household[24]. As per narrated above, it finally concluded that there are more than 44.44% (36 HHs) used to face the food insecurity for over than 50 days a year.
75. At the same time, it is totally concluded that the percentage of know-how on the technology application via the mobile phone to access either the agricultural farming documents or markets information and so on even though they had had the smartphone is tremendously low level. In addition, it is remarkably concluded that the opportunities to get the agricultural technical trainings is such more than they were being since the past decades. Truly, it means that they used to be instructed about the agricultural techniques as mentioned above as well.

3.10 Suggestions

76. Through the TNA results, the LASED III project shall formulate the adequately strategy to support them in terms of technical and practical provision supports relatively. For instances, the supporting of livestock production and animal production to increase their productivity and vegetation farming as they are doing presently.
77. In terms of markets and markets linkages, the LASED III project shall firstly define the group of interest to form up the legal producer groups officially in order to get the benefits of business matching platform preparation and contract farming[25] negotiation for better markets guarantee.
78. To promote the sustainable exit strategy in the future, the LASED III shall promote the commune extension workers who will be selected from the domestic and inside **Psang IC village** itself through the technical and professional skills provision as well as the allowances supports suitably provides to them during the periods of the project implementing. In addition, the existing mechanism under LASED III project such as village extension workers (VEWs), village animal health workers (VAHWs) and Agricultural Development Facilitators (ADFs)

[23] The Cambodia Poverty Assessment 2022: Toward a More Inclusive and Resilient Cambodia shows the country has made remarkable progress in reducing poverty over the past decade, but that some recent gains have been threatened by the impact of the COVID-19 pandemic on the economy. Cambodia has updated the poverty line based on the Socio-Economic Survey 2019-2020, where the national minimum is set at 10,951 riels (about $ 2.7) per person per day. Accessed on Jan 30th, 2023 from the source available at: https://documents1.worldbank.org/curated/en/099155111222239793/pdf/P1735940c0e8b508d0b80e0c7375c89d9c0.pdf

[24] This is to remark that this data does not reflects to the whole national assessment by using this collected data from each 81 HHs in **Psang IC village**. However, this data is purposively used under the LASED III only. In addition, it is just using the national data for comparison to assume the current status economic of this ethic people group.

[25] Contract farming (CF) is increasingly seen as an effective mechanism to maximize the inclusion of and benefits for small-scale farmers, while giving some control over production to agribusinesses without requiring land ownership. In Cambodia, CF takes many forms and involves food and industrial crops, yet the different CF models and contract types have not been identified. Farmers and contractors have encountered many problems in obtaining reliable benefits from and sustaining CF schemes.

shall be engaged regionally to support them in terms of agriculture and economic development inside the whole **Psang IC village**.

IV. ANNEXES

Annex 4.1: List of Interviewees in Psang IC village

No	Name	Sex	Age	Ethic group	Education level	Children	Son	Daughter	Village	Commune	District	Province
1	Theang Kong	F	58	Prov	Primary School	6	3	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
2	Thuk Sun	M	50	Prov	Primary School	3	1	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
3	Lip Sok	M	40	Prov	Primary School	5	3	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
4	Ty Trel	M	33	Prov	Primary School	3	1	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
5	Vat Teub	F	30	Prov	Primary School	3	1	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
6	Reang Khor	F	33	Prov	Primary School	4	2	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
7	Thann Moeun	M	44	Prov	Primary School	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
8	Hus Pes	F	31	Prov	Primary School	4	3	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
9	Say Ping	M	56	Prov	Primary School	5	2	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
10	Chrang Soung	F	34	Prov	Primary School	3	0	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
11	Pong Khamsey	M	80	Prov	Primary School	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
12	Thong Sann	M	40	Prov	Primary School	3	1	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
13	Sak Cheat	F	50	Prov	Primary School	6	1	5	Psang IC	Taveng Krom	Taveng	Ratanakiri
14	Sa Viet	M	45	Prov	Primary School	5	2	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
15	Sok An	M	25	Prov	Primary School	1	0	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
16	Sy Tut	F	45	Prov	Primary School	2	0	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
17	Khamlan Nan	F	19	Prov	Secondary School	0	0	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
18	Sak Sorphy	F	25	Prov	Primary School	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
19	Loung Klang	M	37	Prov	Primary School	4	4	0	Psang IC	Taveng Krom	Taveng	Ratanakiri

20	Kov Kreun	M	55	Prov	Primary School	0	0	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
21	Soum Keum	M	40	Prov	Primary School	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
22	Veng Chann	M	36	Prov	Primary School	3	1	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
23	Sann Chanthai	F	17	Prov	Secondary School	1	0	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
24	Pok Souhean	M	27	Prov	Secondary School	1	1	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
25	Tres Sol	F	30	Prov	Primary School	1	1	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
26	Kreum Mak	F	65	Prov	Primary School	4	3	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
27	Khim Vansreyly	F	29	Prov	Secondary School	2	2	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
28	Pleng Kongkhea	F	30	Prov	Primary School	3	2	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
29	Khen Van	F	40	Prov	Primary School	2	0	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
30	Ping Doun	F	28	Prov	Secondary School	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
31	Prouy Phas	F	60	Prov	Primary School	6	3	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
32	Thit Tum	M	23	Prov	Primary School	1	1	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
33	Mort Se	M	65	Prov	Primary School	0	0	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
34	Poeun Khen	M	65	Prov	Primary School	3	2	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
35	Pok Bunlak	M	35	Prov	Secondary School	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
36	Norb Prokas	M	33	Prov	Secondary School	3	2	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
37	Chras Thean	F	51	Prov	Primary School	5	2	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
38	Kaleung Khakk	F	30	Prov	Secondary School	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
39	Bey Poum	M	65	Prov	Illiteracy	0	0	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
40	Lakk Ke	M	31	Prov	Primary School	2	0	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
41	Chhem Nork	M	70	Prov	Illiteracy	7	4	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
42	Hean Reng	M	80	Prov	Illiteracy	7	4	3	Psang IC	Taveng Krom	Taveng	Ratanakiri

43	Hean Veng	F	71	Prov	Illiteracy	5	4	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
44	Nhem Srok	F	31	Prov	Primary School	3	3	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
45	Nort Vorras	F	19	Prov	Primary School	0	0	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
46	Seun Khea	F	48	Prov	Illiteracy	1	1	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
47	Veang Tor	F	35	Prov	Primary School	3	1	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
48	Sak Phatt	F	20	Prov	Primary School	1	0	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
49	Hus Ping	F	50	Prov	Illiteracy	3	2	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
50	Pou Chak	M	60	Prov	Illiteracy	0	0	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
51	Vit Chin	F	32	Prov	Illiteracy	4	1	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
52	Tuy Smatt	F	28	Prov	Illiteracy	3	2	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
53	Van Thong	F	30	Prov	Illiteracy	3	0	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
54	Kher Chab	F	40	Prov	Illiteracy	6	1	5	Psang IC	Taveng Krom	Taveng	Ratanakiri
55	Kong Thou	F	30	Prov	Primary School	3	1	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
56	Reat Tivy	F	26	Prov	Illiteracy	1	0	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
57	Teng Narong	F	20	Prov	Illiteracy	1	0	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
58	Tong Sochit	F	48	Prov	Illiteracy	5	2	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
59	Nort Sarong	F	25	Prov	Illiteracy	0	0	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
60	Nork Thea	F	29	Prov	Illiteracy	2	0	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
61	Kher Chenda	F	28	Prov	Illiteracy	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
62	Lim Touy	F	50	Prov	Illiteracy	8	2	6	Psang IC	Taveng Krom	Taveng	Ratanakiri
63	Kong Kabeas	F	30	Prov	Primary School	3	0	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
64	Poeun Iva	F	20	Prov	Primary School	1	0	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
65	Mey Chhunny	F	32	Prov	Primary School	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri

66	Vin Din	F	55	Prov	Primary School	5	3	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
67	Pok Sochann	F	32	Prov	Primary School	4	1	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
68	Bov Pouy	M	43	Prov	Illiteracy	0	0	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
69	Veng Khamkhoun	M	40	Prov	Primary School	5	4	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
70	Teang Chuk	F	21	Prov	Primary School	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
71	Nhem Sambo	F	23	Prov	Primary School	1	1	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
72	Chea Komprea	F	38	Prov	Primary School	3	1	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
73	Loum Vak	F	66	Prov	Illiteracy	6	5	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
74	Tuk Khamporn	M	70	Prov	Primary School	6	4	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
75	Seub Sovannara	M	32	Prov	Primary School	4	1	3	Psang IC	Taveng Krom	Taveng	Ratanakiri
76	Khen Punra	F	34	Prov	Primary School	4	3	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
77	Neu Sodoung	F	21	Prov	Secondary School	0	0	0	Psang IC	Taveng Krom	Taveng	Ratanakiri
78	Pov Pok	M	61	Prov	Illiteracy	6	5	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
79	Phorn Moeun	F	37	Prov	High School	4	2	2	Psang IC	Taveng Krom	Taveng	Ratanakiri
80	Ping Chamroeun	F	33	Prov	High School	2	1	1	Psang IC	Taveng Krom	Taveng	Ratanakiri
81	Suk Vander	F	62	Prov	Illiteracy	6	3	3	Psang IC	Taveng Krom	Taveng	Ratanakiri

Annex 4.2: List of Families Planting Cashew Tree

No	Name	Sex	Planting area (ha)	Cashew's age	Yields (t)	Sell QTY (t)	Prices (Riel/kg)
1	Theang Kong	F	1.00	4	-	-	-
2	Thuk Sun	M	2.00	2	-	-	-
3	Lip Sok	M	0.50	2	-	-	-
4	Ty Trel	M	1.00	1	-	-	-
5	Vat Teub	F	2.00	6	1.50	1.50	4,500.00
6	Reang Khor	F	1.00	7	1.50	1.50	4,000.00
7	Thann Moeun	M	1.50	5	0.40	0.40	4,000.00
8	Hus Pes	F	0.50	2	-	-	-
9	Say Ping	M	2.00	5	0.13	0.13	4,000.00
10	Chrang Soung	F	3.00	3.5	-	-	-
11	Pong Khamsey	M	1.00	4.5	-	-	-
12	Thong Sann	M	0.50	3	-	-	-
13	Sa Viet	M	2.00	5	0.14	0.14	3,500.00
14	Sok An	M	1.00	2	-	-	-
15	Sy Tut	F	1.50	1	-	-	-
16	Khamlan Nan	F	0.50	2	-	-	-
17	Sak Sorphy	F	1.00	2	-	-	-
18	Loung Klang	M	1.50	2	-	-	-
19	Kov Kreun	M	0.50	3	-	-	-
20	Soum Keum	M	2.00	1	-	-	-
21	Pok Souhean	M	1.00	1	-	-	-
22	Tres Sol	F	2.00	5	1.00	1.00	5,000.00
23	Khim Vansreyly	F	1.50	3	0.10	0.10	3,500.00
24	Pleng Kongkhea	F	0.50	1	-	-	-
25	Ping Doun	F	1.00	5	0.30	0.30	3,000.00
26	Thit Tum	M	0.50	1	-	-	-
27	Mort Se	M	2.00	7	1.00	1.00	3,500.00
28	Poeun Khen	M	2.00	5	0.80	0.80	3,000.00
29	Pok Bunlak	M	2.00	5	0.70	0.70	3,000.00
30	Norb Prokas	M	2.00	5.5	0.80	0.80	3,000.00
31	Chras Thean	F	2.00	6	1.00	1.00	3,500.00
32	Kaleung Khakk	F	1.00	1	-	-	-
33	Bey Poum	M	2.00	5.5	0.50	0.50	4,000.00
34	Chhem Nork	M	0.50	2	-	-	-
35	Hean Veng	F	1.00	5	0.40	0.40	3,500.00
36	Nhem Srok	F	2.00	3	-	-	-
37	Seun Khea	F	0.50	4	0.25	0.25	4,000.00
38	Veang Tor	F	1.00	2	-	-	-
39	Hus Ping	F	1.00	4	0.25	0.25	4,000.00
40	Tuy Smatt	F	1.00	-	0.10	0.10	3,500.00
41	Van Thong	F	1.00	3	-	-	-
42	Kong Thou	F	1.00	1	-	-	-
43	Reat Tivy	F	2.00	3.5	0.02	0.02	3,000.00
44	Teng Narong	F	0.50	2	-	-	-
45	Nort Sarong	F	2.00	3	-	-	-
46	Nork Thea	F	0.50	2	-	-	-
47	Kher Chenda	F	0.50	3	-	-	-
48	Lim Touy	F	1.50	3	-	-	-
49	Kong Kabeas	F	5.00	3	-	-	-
50	Mey Chhunny	F	1.00	4	0.10	0.10	3,500.00

51	Vin Din	F	1.00	5	0.80	0.80	4,000.00
52	Pok Sochann	F	1.00	2	-	-	-
53	Teang Chuk	F	1.00	2	-	-	-
54	Nhem Sambo	F	0.50	3	-	-	-
55	Chea Komprea	F	0.50	3	-	-	-
56	Loum Vak	F	1.00	4	0.20	0.20	3,000.00
57	Tuk Khamporn	M	1.00	4	0.18	0.18	4,000.00
58	Seub Sovannara	M	4.00	4.5	1.00	1.00	4,000.00
59	Khen Punra	F	1.00	6	0.50	0.50	4,000.00
60	Neu Sodoung	F	4.00	3	3.00	3.00	2,500.00
61	Pov Pok	M	0.50	4.5	0.20	0.20	2,500.00
62	Phorn Moeun	F	5.00	4	0.60	0.60	2,500.00
63	Ping Chamroeun	F	3.00	2	-	-	-
64	Suk Vander	F	1.00	5	0.50	0.50	2,500.00
Total (ha, t)			92.00	-	17.97	17.97	-

Annex 4.3: List of Families Planting Tapioca

No	Name	Sex	Planting area (ha)	Yields (t)	Sell QTY (t)	Prices (Riel/kg)
1	Veng Khamkhoun	M	0.50	-	-	-
2	Poeun Khen	M	0.50	5.00	3.00	600.00

Annex 4.4: List of Families Planting Upland Paddy/Rice

No	Name	Sex	Planting area (ha)	Yields (t)	Sell QTY (t)	Prices (Riel/kg)
1	Thuk Sun	M	0.50	0.360	-	-
2	Lip Sok	M	2.00	1.000	-	-
3	Ty Trel	M	0.50	0.500	-	-
4	Vat Teub	F	0.50	0.500	-	-
5	Reang Khor	F	0.50	0.500	-	-
6	Thann Moeun	M	1.00	1.000	-	-
7	Hus Pes	F	0.50	0.288	-	-
8	Say Ping	M	0.50	0.480	-	-
9	Chrang Soung	F	1.00	0.850	-	-
10	Pong Khamsey	M	1.00	0.720	-	-
11	Thong Sann	M	2.00	0.720	-	-
12	Sak Cheat	F	0.50	0.480	-	-
13	Sa Viet	M	2.00	0.720	-	-
14	Sok An	M	1.00	0.600	-	-
15	Sy Tut	F	1.00	0.600	-	-
16	Khamlan Nan	F	0.50	0.300	-	-
17	Sak Sorphy	F	1.00	0.800	-	-
18	Loung Klang	M	1.50	1.400	-	-

19	Kov Kreun	M	1.00	0.700	-	-
20	Soum Keum	M	1.00	0.600	-	-
21	Veng Chann	M	1.00	0.400	-	-
22	Sann Chanthai	F	1.00	0.600	-	-
23	Pok Souhean	M	1.50	1.300	-	-
24	Tres Sol	F	1.00	0.600	-	-
25	Kreum Mak	F	1.00	0.500	-	-
26	Khim Vansreyly	F	1.00	0.700	-	-
27	Pleng Kongkhea	F	1.00	0.600	-	-
28	Khen Van	F	0.50	0.300	-	-
29	Ping Doun	F	1.00	0.700	-	-
30	Prouy Phas	F	1.00	0.600	-	-
31	Thit Tum	M	1.00	0.700	-	-
32	Mort Se	M	2.00	1.500	-	-
33	Poeun Khen	M	1.00	0.750	-	-
34	Pok Bunlak	M	2.00	1.000	-	-
35	Norb Prokas	M	1.00	0.600	-	-
36	Chras Thean	F	2.00	1.200	-	-
37	Kaleung Khakk	F	1.00	1.000	-	-
38	Bey Poum	M	1.00	0.500	-	-
39	Lakk Ke	M	1.00	1.000	-	-
40	Chhem Nork	M	1.00	0.600	-	-
41	Hean Reng	M	2.00	1.000	-	-
42	Hean Veng	F	1.00	0.500	-	-
43	Nhem Srok	F	1.50	1.50	-	-
44	Nort Vorras	F	1.00	1.50	-	-
45	Seun Khea	F	0.50	0.12	-	-
46	Veang Tor	F	1.50	0.50	-	-
47	Sak Phatt	F	0.50	0.50	-	-
48	Hus Ping	F	1.00	0.50	-	-
49	Vit Chin	F	1.00	1.00		
50	Van Thong	F	0.50	0.50	-	-
51	Kher Chab	F	1.50	0.24	-	-
52	Kong Thou	F	0.50	0.25	-	-
53	Reat Tivy	F	1.00	0.50	-	-

54	Teng Narong	F	0.50	0.50	-	-
55	Tong Sochit	F	1.00	0.36	-	-
56	Nort Sarong	F	1.00	0.18	-	-
57	Kher Chenda	F	0.50	0.24	-	-
58	Lim Touy	F	1.00	1.00	-	-
59	Kong Kabeas	F	1.00	1.50	-	-
60	Poeun Iva	F	2.00	1.30	-	-
61	Mey Chhunny	F	2.00	6.00	-	-
62	Vin Din	F	1.00	0.50	-	-
63	Pok Sochann	F	0.50	0.50	-	-
64	Bov Pouy	M	2.00	1.50	0.50	800.00
65	Veng Khamkhoun	M	1.00	1.00	-	-
66	Teang Chuk	F	1.00	1.50	-	-
67	Nhem Sambo	F	1.00	0.60	-	-
68	Chea Komprea	F	2.00	0.70	-	-
69	Loum Vak	F	1.00	0.30	-	-
70	Tuk Khamporn	M	0.50	0.45	-	-
71	Seub Sovannara	M	0.50	0.65	-	-
72	Khen Punra	F	1.00	1.00	-	-
73	Neu Sodoung	F	0.50	0.600	-	-
74	Pov Pok	M	0.50	0.600	-	-
75	Phorn Moeun	F	1.00	0.600	-	-
Total (ha, t)			78.50	58.46	-	-

Annex 4.5: List of Families Planting Vegetables

No	Name	Sex	Type of vegetables	Planting Areas (m^2)	Sell QTY (kg)	Total income (Riel)
1	Theang Kong	F	Taro, galangal, turmeric	10.00	-	-
2	Lip Sok	M	Bitter melon, winter melon, spring onion	36.00	-	-
3	Ty Trel	M	Choy sum, bok choy, morning glory	36.00	-	100,000.00
4	Vat Teub	F	Bitter melon, eggplant	25.00	-	-
5	Reang Khor	F	Eggplant, cucumber, chili	15.00	-	-
6	Hus Pes	F	Choy sum, eggplant, chili, zucchini	20.00	-	-

7	Say Ping	M	Choy sum, cucumber, morning glory, sesame	200.00	-	250,000.00
8	Chrang Soung	F	Choy sum, galangal, morning glory	5.00	-	-
9	Pong Khamsey	M	Sesame	-	-	-
10	Thong Sann	M	Chili	500.00	-	-
11	Sak Cheat	F	Sesame and sweet potato	20.00	-	-
12	Sa Viet	M	Choy sum, spinach, sesame	100.00	-	-
13	Sann Chanthai	F	Choy sum	20.00	-	20,000.00
14	Nort Vorras	F	Morning glory	36.00	-	-
15	Nork Thea	F	Choy sum and bok choy	20.00	-	-
16	Kher Chenda	F	Choy sum, bok choy	30.00	-	-
17	Mey Chhunny	F	Morning glory	-	-	-
18	Vin Din	F	Morning glory, sesame	20.00	-	-
19	Pok Sochann	F	Choy sum, cucumber, morning glory	10.00	-	-
20	Bov Pouy	M	Cucumber	30.00	-	-
21	Veng Khamkhoun	M	Morning glory	20.00	-	-
22	Chea Komprea	F	Morning glory	-	-	-
23	Seub Sovannara	M	Morning glory, turmeric white, plai	30.00	-	-
24	Neu Sodoung	F	Choy sum, morning glory, galangal, turmeric	30.00	-	-
25	Pov Pok	M	Morning glory, sweet potato, pumpkin	40.00	-	-
26	Phorn Moeun	F	Cucumber, morning glory, Choy sum	30.00	-	-
27	Ping Chamroeun	F	Chili, sesame, hot basil	30.00	-	-
28	Suk Vander	F	Sesame, lemongrass, cucumber	30.00	-	-
Total (m^2)				1,343.00	-	-

Annex 4.6: List of Families Planting Sesame

No	Name	Sex	Type of crops	Planting Areas (ha)	Sell QTY (kg)	Price (Riel/kg)	Remarks
1	Lip Sok	M	Sesame	0.5	n.a	900,000.00	Mostly, they plant sesame inside the upland paddy/rice fields.
2	Ty Trel	M	Sesame	0.5	n.a	400,000.00	
3	Pong Khamsey	M	Sesame	0.5	n.a	175,000.00	
4	Sak Cheat	F	Sesame	0.1	n.a	200,000.00	
5	Sa Viet	M	Sesame	0.5	n.a	400,000.0	
6	Vin Din	F	Sesame	0.3	n.a	n.a	
7	Ping Chamroeun	F	Sesame	0.5	n.a	500,000.00	
8	Suk Vander	F	Sesame	0.5	n.a	400,000.00	
9	Say Ping	M	Sesame	0.3	n.a	500,000.00	
Total (ha)				3.7	-	-	

Annex 4.7: List of Families Raising Animals and Livestock

No	Name	Sex	Cow	Buffalo	Swine/Mice Pig	Chicken	Duck
1	Theang Kong	F	-	-	-	4	-
2	Thuk Sun	M	2	2	1	-	-
3	Lip Sok	M	2	-	1	5	-
4	Ty Trel	M	-	-	2	-	-
5	Vat Teub	F	-	-	1	-	-
6	Reang Khor	F	-	-	2	-	-
7	Thann Moeun	M	18	-	-	5	-
8	Hus Pes	F	-	-	1	10	4
9	Say Ping	M	-	-	-	15	-
10	Chrang Soung	F	18	10	-	-	5
11	Pong Khamsey	M	-	-	1	5	3
12	Thong Sann	M	-	2	-	5	-
13	Sak Cheat	F	-	-	-	10	3
14	Sa Viet	M	3	3	3	5	-
15	Sok An	M	1	-	1	6	1
16	Sy Tut	F	-	-	5	4	-
17	Khamlan Nan	F	2	-	-	-	-
18	Sak Sorphy	F	-	-	-	-	-

19	Loung Klang	M	-	-	-	10	-
20	Kov Kreun	M	-	-	-	-	-
21	Soum Keum	M	-	-	-	-	-
22	Veng Chann	M	-	-	3	10	1
23	Sann Chanthai	F	-	-	-	5	-
24	Pok Souhean	M	-	-	-	15	-
25	Tres Sol	F	-	-	2	10	-
26	Kreum Mak	F	-	-	-	1	-
27	Khim Vansreyly	F	-	-	1	5	-
28	Pleng Kongkhea	F	-	-	-	4	-
29	Khen Van	F	-	-	1	5	-
30	Ping Doun	F	3	-	2	5	-
31	Prouy Phas	F	-	-	-	5	-
32	Thit Tum	M	5	-	11	20	-
33	Mort Se	M	2	2	1	10	-
34	Poeun Khen	M	-	1	5	10	-
35	Pok Bunlak	M	-	3	1	6	-
36	Norb Prokas	M	-	3	2	10	-
37	Chras Thean	F	5	3	1	25	4
38	Kaleung Khakk	F	-	-	-	-	-
39	Bey Poum	M	-	-	-	20	2
40	Lakk Ke	M	-	-	2	3	-
41	Chhem Nork	M	-	1	-	-	-
42	Hean Reng	M	1	-	-	5	2
43	Hean Veng	F	1	1	-	4	2
44	Nhem Srok	F	-	-	4	10	-
45	Nort Vorras	F	-	-	-	27	-
46	Seun Khea	F	-	-	-	-	-
47	Veang Tor	F	4	-	-	10	-
48	Sak Phatt	F	-	-	-	-	-
49	Hus Ping	F	2	4	3	20	-
50	Pou Chak	M	-	-	-	-	-
51	Vit Chin	F	-	-	1	4	-
52	Tuy Smatt	F	-	-	3	5	-
53	Van Thong	F	-	-	-	4	-

54	Kher Chab	F	-	-	-	-	-
55	Kong Thou	F	-	-	-	-	-
56	Reat Tivy	F	1	-	2	-	-
57	Teng Narong	F	-	-	-	2	-
58	Tong Sochit	F	-	-	-	2	-
59	Nort Sarong	F	-	-	2	-	-
60	Nork Thea	F	-	-	1	4	1
61	Kher Chenda	F	-	-	-	2	1
62	Lim Touy	F	-	-	1	5	-
63	Kong Kabeas	F	-	-	-	5	-
64	Poeun Iva	F	-	-	-	-	-
65	Mey Chhunny	F	6	-	-	2	-
66	Vin Din	F	-	-	4	20	-
67	Pok Sochann	F	-	-	-	40	-
68	Bov Pouy	M	-	-	-	2	-
69	Veng Khamkhoun	M	-	-	-	28	-
70	Teang Chuk	F	2	-	-	-	-
71	Nhem Sambo	F	-	-	-	10	-
72	Chea Komprea	F	1	-	1	10	-
73	Loum Vak	F	-	-	-	5	-
74	Tuk Khamporn	M	-	-	-	-	-
75	Seub Sovannara	M	2	-	3	5	2
76	Khen Punra	F	-	-	-	-	-
77	Neu Sodoung	F	1	-	-	-	-
78	Pov Pok	M	-	-	-	-	-
79	Phorn Moeun	F	-	-	-	-	-
80	Ping Chamroeun	F	5	-	-	-	-
81	Suk Vander	F	-	-	-	-	-
Total			87	35	75	484	31

Annex 4.8: Training Needs Assessment Codes

1. Crops Production's codes	
Code 1	Cultivation techniques (soil preparation, net house preparation, seed selection, irrigation preparation)
Code 2	An understanding the use of pesticides and fertilizers and technical standards
Code 3	Breeding or grafting techniques (including cashews, cassava, etc.)
Code 4	Integrated Pest Management (IPM) techniques and treatments on various crops
Code 5	An understanding of safe vegetables and safe vegetable growing techniques
Code 6	An understanding of organic crops and organic farming techniques
Code 7	An understanding of planting techniques in line with Good Agricultural Practices (GAP)
Code 8	An understanding drip irrigation and sprinkler irrigation
Code 9	Organizing production groups or farming communities and other related work
Code 10	Agricultural business planning preparation
2. Nutrition Sensitive Agriculture's Codes	
N 1	Training on food safety and nutrition
N 2	Training on agricultural product processing and preservation technology
N 3	Training on promoting gender equality and women's nutrition
N 4	Training on intensive agriculture and agricultural diversification
N 5	Training on hygiene and food hygiene practices
N 6	Training on home school garden and food safety education for school children
N 7	Training on communicable diseases pandemic, health effects and nutrition
N 8	Training on fundamental basics of nutrition
N 9	Training on gender equity, women's leadership and agricultural works
N 10	Training on post-harvest of nutrition losses in value chain
N 11	Training on strategy and multi-sectors on malnutrition interventions
N 12	Training on food fortification
N 13	Training on post-harvest safe handling
3. Contract Farming Implementation's Codes	
CF 1	Training on general guideline of contract farming
CF 2	Training on monitoring and verification of relevant documents during implementing the contract farming
CF 3	Training on quality control and preparation
CF 4	Training on development of human resource training plan and participation in the implementation of contract agricultural production
CF 5	Training on procedure for requesting and preparation of relevant documents requesting the implementation of contract farming
CF 6	Training on dispute resolution in contract farming
CF 7	Training on packaging and labeling
CF 8	Training on market access and smallholder farmers' connectivity
CF 9	Training on the concept of agri-business cluster

Annex 4.9: Questionnaire of Beneficiary Profile Form

A. To be completed by interviewer

1. Name: ....., Gender: ☐ Male ☐ Female

2. Interview date (DD/MM/YY): .....

3. Location: .....(village), ...(commune), ...(district), ...(province).

4. Phone number: ..... and .....

B. To be completed by interviewee

Part I: General information

1. Name: ....., Gender: ☐ Male ☐ Female

2. Indigenous People: ☐ Kreung ☐ Tompoun ☐ Pou Nong ☐ Prov ☐ Mil ☐ Charay ☐ Other: .....

3. Family status: ☐ Single ☐ Marriage ☐ Divorce ☐ Separate

4. Children: …… (People) (Son: …… (People), Daughter: ……..… (People).

5. Children who are studying:

- ❖ Kindergarten: ….....… (People) (Son: ……. (People), Daughter: ……. (People).
- ❖ Primary school: ….....… (People) (Son: ……. (People), Daughter: ……. (People).
- ❖ Secondary school: ….....… (People) (Son: ……. (People), Daughter: ……. (People).
- ❖ High school: ….....… (People) (Son: ……..… (People), Daughter: ……..……. (People).
- ❖ Technical school: ….....… (People) (Son: ……. (People), Daughter: ……..... (People).
- ❖ Undergraduate: ….....… (People) (Son: ……. (People), Daughter: …… (People).

6. Children who stop study: ….... (People) (Son: …… (People), Daughter: ….....… (People).

7. Under-age school children: ….... (People) (Son: ……(People), Daughter: ……..… (People).

8. Agriculture labor force: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐…….……

9. Have you applied to the LASED III project already in term of agricultural support? ☐ Yes ☐ No

10. Have you participated in dissemination already? ☐ Yes ☐ No

11. Which institutions provide the dissemination?

☐ Ministry of Agriculture, Forestry and Fisheries

☐ Ministry of Land Management, Urban Planning and Construction

☐ Provincial Department of Agriculture, Forestry and Fisheries

☐ Provincial Department of Land Management, Urban Planning and Construction

☐ Local authority

☐ Other: ……

Part II: Agricultural potential

2.1 Industrial crops

2.1.1 Cashew tree ☐ Yes ☐ No (If so, please verify below:)

☐ Younger than the harvest year

☐ No land to grow

☐ Land not yet cleared

☐ Other: ……

2.1.1.1 Cashew production: …… (h.a), Yield: ……. (t), Price: …...…… (Riel/kg)

2.1.2 Cassava: …… (h.a)

2.1.2.1 Quantity sell: …… (h.a), Fresh cassava's price: …… (Riel/kg)

2.1.2.2 Quantity sell: …… (h.a), Dried chip cassava's price: ……... (Riel/kg)

2.1.3 Rubber: …… (h.a), Yield: ……. (t), Price: …...…… (Riel/kg)

2.1.4 Rice: ……. (h.a), Yield: ……. (t), Have you sold the rice? ☐ Yes ☐ No (Please verify)

☐ Only household consumption

☐ Also sold some

☐ No land to grow

☐ Land not yet cleared

☐ Other: ……

2.1.4.1 Sold quantity: …… (h.a), Yield: ……. (t), Price: …...…… (Riel/kg)

2.2 Horticulture

2.2.1 Vegetable: …… (h.a), Yield: ……. (t), Price: …..…… (Riel/kg)

2.2.2 Fruits tree: …… (h.a), Yield: ……. (t), Price: …..…… (Riel/kg)

2.3 Challenges

2.3.1 What is the condition of your land? ☐ Good ☐ Average ☐ Bad

2.3.2 Challenges

Choose any answer you come across Please tick (✓) on the only answer! Level 1 is not strongly challenged to level 5 is strongly challenged	1	2	3	4	5
Drought					
Diseases on other crops					
Lack of techniques in cultivation					
Lack of labor to support agricultural work					
Lack of capital					
Lack of sales' market					
Lack of agricultural inputs (fertilizers and pesticides, seeds, etc.)					

2.4 Livestock ☐ No ☐ Yes (If so, please verify below:)

2.4.1 Cow: ....., Buffolo: ....., Pig: ....., Chicken: ....., Duck: ....., Other: .....

2.4.1.1 Cow's sell quantity: ....., Total price: ..... (Riel)

2.4.1.2 Buffolo's sell quantity: ....., Total price: ..... (Riel)

2.4.1.3 Chicken's sell quantity: ....., Total price: ..... (Riel)

2.4.1.4 Duck's sell quantity: ....., Total price: ..... (Riel)

2.4.1.5 Other: ....., Total price: ..... (Riel)

2.4.2 Challenges

Choose any answer you come across Please tick (✓) on the only answer! Level 1 is not strongly challenged to level 5 is strongly challenged	1	2	3	4	5
Drought					
Other animal diseases					
Lack of technique in raising					
Lack of labor to raise livestock					
Lack of capital for animal husbandry raising					

Lack of sales' market					
Lack of production inputs (food, vaccines, veterinary drugs, etc.)					

2.5 Aquaculture (raising fish, frogs, eels, snakes, etc.)

2.5.1 Do you do aquaculture? ☐ No ☐ Yes (If so, please verify below)

2.5.2 Sell quantity: …… (kg), Price: ……... (Riel/kg)

2.5.3 Do you want to do aquatic farming? ☐ Yes ☐ No (If so, please verify below)

2.5.4 Please provide your reasons why do not want to do the aquatic farming:

.....

2.6 Markets

2.6.1 Who do you sell your agricultural products to?

☐ Processing company

☐ Medium or large broker in local or province

☐ Village collectors

☐ Agricultural cooperative to which it is a member (If the respondent is a member of the agricultural cooperative)

☐ Others (Please specify: .....)

2.6.2 Where do your buyers bring your agricultural products to?

☐ Export abroad (usually exported to Vietnam)

☐ Local processing

☐ Resale to exporters (usually exported to Vietnam)

2.6.3 Where sources do you know the price of agricultural products from?

☐ By phone

☐ By telegram

☐ Direct contact with local buyers (Establish a regular quote team)

☐ By relevant ministries and institutions

☐ By organizing a matching forum from relevant ministries and institutions

2.6.4 Have you ever attended a contract farming training course?

☐ No

☐ Yes

2.6.5 Which ministry or institution is organized by?

☐ Provincial Department of Agriculture, Forestry and Fisheries

☐ Department of Agro-Industry

☐ NGOs

☐ Private sector engaged in contract farming

2.6.6 Transportation

☐ Bulldozer ☐ Tractor ☐ Motorcycles ☐ Horse-drawn carriage ☐ Car

2.6.7 Challenges

☐ Low selling price

☐ Lack of buyers

☐ Lack of market information

☐ Lack of drying facilities

☐ Other:

(Specify.....)

2.7 Agricultural economic analysis (Annual)

2.7.1 Total income from agriculture ..... (Riel)

2.7.2 Total expenditure on agricultural production (cultivation, aquaculture, etc.) ..... (Riel)

2.7.3 Non-agricultural work ☐ No ☐ Yes (Please specify:.....)

2.7.4 Non-agricultural income (Please specify:..... (Riel))

2.7.5 Expenses and income: ☐ Enough ☐ Not enough

2.7.6 How many months do you estimate the shortage (in days / months)? .....

2.8 Extension and Information Technology

2.8.1 Have you ever attended a short course in agricultural skills? ☐ Yes ☐ No

2.8.2 Training by which party:

.....

.....

2.8.3 Do you have a cell phone? ☐ Yes ☐ No

2.8.4 Total number of phones: ..... (Units) 4.1 Smart phones ..... units

2.8.5 Have you ever used a smartphone to learn agricultural techniques? ☐ Yes ☐ No

2.8.6 Have you ever used a smartphone to buy or sell agricultural products? ☐ Yes ☐ No

2.9 Community infrastructure

2.9.1 Rubber road number: ..... (Line), Length: ..... (Km)

2.9.2 Road number: ..... (Line), Length: ..... (Km)

2.9.3 Red gravel road number: ..... (Line), Length: ..... (Km)

2.9.4 Lake ....., Size: ..... (Cubic meter)

2.9.5 River ....., Length: ..... (Km)

2.9.6 School ..... (Building)

2.9.7 Health Center ..... (Building)

2.10 Training Needs Assessment

A. Animals and Livestock Production

Please select the training course below, giving priority by ticking (✓)						
Techniques/Animals	Cow	Buffalo	Pig	Chicken	Ducks	Other
Animal husbandry feeding						
Breeding						
Feeds making						
Vaccination						
Disease treatment						
Production preparation (Cage)						
Business planning preparation						
Others						

B. Aquaculture

Please select the training course below, giving priority by ticking (✓)					
Techniques/Aquaculture	Cat fish	Frog	Eel	Others	Others
Raising in plastic bags					
Breeding					
Feeds making					
Vaccination					
Disease treatment					
Production preparation (Reservoir)					
Business planning preparation					
Others					

C. Crops Production

Please select the training course below, giving priority by ticking (✓)

☐ Cultivation techniques (soil preparation, net house preparation, seed selection, irrigation preparation)

☐ An understanding the use of pesticides and fertilizers and technical standards

☐ Breeding or grafting techniques (including cashews, cassava, etc.)

☐ Integrated Pest Management (IPM) techniques and treatments on various crops

☐ An understanding of safe vegetables and safe vegetable growing techniques

☐ An understanding of organic crops and organic farming techniques

☐ An understanding of planting techniques in line with Good Agricultural Practices (GAP)

☐ An understanding drip irrigation and sprinkler irrigation

☐ Organizing production groups or farming communities and other related work

☐ Agricultural business planning preparation

D. Nutrition Sensitive Agriculture

Please select the training course below, giving priority by ticking (✓)

☐ Training on food safety and nutrition

☐ Training on agricultural product processing and preservation technology

☐ Training on promoting gender equality and women's nutrition

☐ Training on intensive agriculture and agricultural diversification

☐ Training on hygiene and food hygiene practices

☐ Training on home school garden and food safety education for school children

☐ Training on communicable diseases pandemic, health effects and nutrition

☐ Training on fundamental basics of nutrition

☐ Training on gender equity, women's leadership and agricultural works

☐ Training on post-harvest of nutrition losses in value chain

☐ Training on strategy and multi-sectors on malnutrition interventions

☐ Training on food fortification

☐ Training on post-harvest safe handling

E. Contract Farming Implementation

Please select the training course below, giving priority by ticking (✓)

☐ Training on general guideline of contract farming

☐ Training on monitoring and verification of relevant documents during implementing the contract farming

☐ Training on quality control and preparation

☐ Training on development of human resource training plan and participation in the implementation of contract agricultural production

☐ Training on procedure for requesting and preparation of relevant documents requesting the implementation of contract farming

☐ Training on dispute resolution in contract farming

☐ Training on packaging and labeling

☐ Training on market access and smallholder farmers' connectivity

☐ Training on the concept of agri-business cluster

Annex 4.10 Additional questions

I. Agriculture Cooperative

1. Does your indigenous community establish the agriculture cooperative?

☐ No

☐ Yes (Please specify in the following question)

2. What is the name that agriculture cooperative?

……..……
……

3. How many members in that agriculture cooperative? (Please attach the photo, if applicable)

Amount of member: ……. (Number of women: ……...……)

4. What careers does that agriculture cooperative do?

……..……
……..……
……..……
……..……
……..……

5. What challenges does that agriculture cooperative come across?

……..……
……..……
……..……
……..……
……..……

II. Producer Group

6. Does your producer group establish the agriculture cooperative?

□ No

□ Yes (Please specify in the following question)

7. What is the name that producer group?

……..……

8. How many members in that producer group? (Please attach the photo, if applicable)

Amount of member: ……. (Number of women: ……...…)

9. What careers does that producer group do?

……..……

……..……

……..……

……..……

……..……

10. What challenges does that producer group come across?

……..……

……..……

……..……

……..……

……..……

III. Revolving Funds Group

11. Does your revolving funds group establish the agriculture cooperative?

□ No

□ Yes (Please specify in the following question)

12. What is the name that revolving funds group?

……..……

13. How many members in that revolving fund group? (Please attach the photo, if applicable)

Amount of member: ……. (Number of women: ……...……)

14. What careers does that revolving funds group do?

……..……

……..……

……..……

……..……

……..……

15. What challenges does that revolving funds group come across?

……..……

……..……

……..……

……..……

……..…

IV. Other Farmer Group

16. Does your other farmers group establish the agriculture cooperative?

□ No

□ Yes (Please specify in the following question)

17. What is the name that other farmers group?

……..……

18. How many members in other farmers group? (Please attach the photo, if applicable)

Amount of member: ……. (Number of women: ……...…)

19. What purposes do that other farmer groups do?

……..…

……..

……

……

……

20. What challenges does that revolving funds group come across?

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21. In order to develop the agriculture cooperative/producer group/revolving funds group, what do you want LASED III project support?

□ Education and training

□ Financial support

□ Business agreement making

□ Contract Farming making

□ Facilitate the private and development partner in the local

□ Physical infrastructure support

□Other (Please specify: ……..……)

V. Fisheries

22. Do you catch fishes traditionally?

□ No

□ Yes (Please specify in the following question)

23. How much do you earn from the traditional fishing?

Please specify: …… (Riel)

24. Do you spend on traditional fishing materials?

□ No

□ Yes (Please specify in the following question)

25. How much do you spend it?

Please specify: …… (Riel)

Thanks you!