

Magazine for Economic Analysis of Family Duck Raising in Serey Sophorn

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Abstract

Family-based agriculture, crop cultivation, and livestock raising, such as ducks, chickens, geese, pigs, cattle, and buffalo, are extremely important for rural populations in Cambodia. These activities contribute to improving household livelihoods, reducing rural poverty, and strengthening food security and the national economy. In particular, family-based duck farming plays a significant role in enhancing household income, supplying food, and supporting national economic development. Family-based duck farming demonstrates strong production capacity and effective management. Market access is convenient, as buyers typically purchase products directly at the farm. Production capital is sourced entirely from farmers' own funds. On average, a farmer can generate 211,490,000 riels per production cycle. Land productivity yields an income of 2,298,804,300 riels per hectare. Annual depreciation costs amount to 4,544,100 riels, fixed capital costs to 64,557,200 riels, and working capital costs to 89,443,300 riels, resulting in total production costs of 93,987,400 riels. Net profit reaches 328,992,600 riels. The efficiency per unit of production capital is 4.50 riels, fixed capital efficiency is 0.01 riels, and working capital efficiency is 0.21 riels. The break-even point is 14,810 duck eggs at a price of 400 riels per egg. In brief, family-based duck farmers demonstrate prudent and effective business management, enabling them to achieve profitability through efficient investment and appropriate use of labor. Therefore, family-based duck farming can sustainably continue, allowing farmers to recover their investment within one year and achieve maximum profit per production cycle.

Key words: *Family-based agriculture, cultivation, duck raising, cycle, livestock, economy*

1. Introduction

The Cambodian majority relies on the agricultural sector, where the sector plays an important role in driving economic growth and family economic development of people in rural and suburban areas, and it also participates in the development of the Cambodian national economy. Currently, family animal husbandry is part of agricultural sector, which provides benefits to many people such as: food for daily consumption, running business, and serving various processed productions. On the other hand, Cambodia also has the potential and favourable climate of nature suitable for animal husbandry,

seeing that at present, some Cambodians have been very interested in animal husbandry, especially duck farming, whether it is family duck breeding production or duck farm production. It has provided many benefits in the daily livelihood of Cambodian people, including providing duck meat and eggs for cooking, manure for fertilizer, feathers and duck wings as brooms, as well as many other daily utilities. Feeding the ducks a day, we have to feed them twice a day, morning and evening, limiting one duck head to only 1.3 bites. Moreover, they need to regularly clean the nests for feeding the ducklings and put plenty of feed in place to avoid them feeding unevenly, they need to make cages wide, taller, with a zinc roof, cover with leaves or palm leaves, and put a veil from under the roof to reduce the heat. We have to limit the ducks to five hours a day by letting them play from 10 a.m. onwards. This natural feeding will make the ducks healthy, the big red eggs are less smelly, the eggs give more eggs, the eaters also get safe food, the source stated that after raising the ducks for three years, we have to sell those ducks out because they are old and the egg delivery is also declining. Doing this can help provide warmth to the ducks and can also use these beads as fertilizer.

Family-based duck production in Cambodia has prompted an understanding of the incomes, costs and profits earned by the population and the potential of family duck farming. Duck eggs contain approximately 215 mg of cholesterol in one red egg, whereas white eggs have no cholesterol but are rich in protein. Recognizing that family duck production is important in supplying the livelihoods of people living in the rural and suburban areas, contributing to helping increase people's income and supplying the demand in the district for easy feeding, and recognizing the value of family duck production. Let's conduct a research study with the aim of studying the performance of duck production and analyzing the economic efficiency, strengths, weaknesses, opportunities and hindrances in duck production in farms. Raising ducks is an important economic activity for farming families in Siem Siet District in Siem Reap Province who take up raising ducks in addition to various jobs to earn an income. Although the geographical situation of the area is favorable for the development of the duck farming sector, duck farming in Seri Sophon district has always faced many problems, such as increasing feed days, animal diseases, limited market access, etc., especially the up-and-down days of duck meat and eggs, which is the reason for income instability for duck farmers.

In the absence of an in-depth economic analysis of duck farming in the area, farmers practising duck farming mostly suffer from losses to bankruptcy, whereas those who intend to raise ducks as a source of income are more difficult to make decisions in investing in this regime. Therefore, studying,

researching, analyzing the cost of origin, income, and the economic efficiency index in practitioners as a source of income to promote livelihood and reduce poverty is an essential requirement to support the accomplishment of those who wish to do so, including development policymakers.

2. Conceptual Framework of Literature

Geographical Status and Rearing of Ducks for Family Development

Vinh Province is one of the provinces of Cambodia, located at northwestern tip of Cambodia, along the National Highway 5, 359 km from Phnom Penh. The province has the following concerns North Adjacent to the, South next to the Centennial, East borders Siem Reap, and West Adjacent to Thailand. The province has been given development opportunities – firstly due to its strategic location along the international border with Thailand, and secondly due to the development of Southern Economic Corridor (National Highway 5 and No. 6), one of the major international economic corridors of Mekong Subregion. But these geographical advantages and expanded development opportunities have not yet benefited province as a whole. By sustainability and balance in the province. Serei Sophon Municipality has a total area of 269 km², this size lies between its two neighboring provincial towns with the largest inhabitants in Cambodia, in order, namely Siem Reap Province, 470 km² and Chia Mai, 15.44 km². is agricultural land and is being used for crop cultivation. The city is located in the heart of the central region of the province and the Sophon, which has high agricultural productivity, geographically and economically, the city has become a core hub and plays an important role in the agricultural services sector in the province.

General Situation and Geographical Location of the Pentagon

The district has a total of 07 villages, namely: Kao Village, Kam Prin Village, Phen Nhat Village, Khuta Village, New Village, Reunification Village and Outdoor School Village, and the people there are practitioners who make a living by relying on a number of occupations such as: farming, shopping, animal husbandry and wage labor. The total area of the district totaled 29,926,36 hectares, of which 0 hectares of forest area, 10,000 hectares of lake area, 10,810 hectares of farmland and 9,116,36 hectares of residential area. Development is the process of expanding people's choices (UNDP, 1991). Development is meant to be inherently progressive (DBI, 1967). Development is the process by which someone or something grows, transforms into more advanced, better (Cambridge Dictionary, n.d). Development is the process of variation of socio-economic, cultural, and institutional structures that facilitate or facilitate economic growth and make economic growth sustainable for a long time, or in other words, development, trigger the conditions for a sustainable economy.

In an economic sense, development is related to an improvement in people's economic situation, a better quality of living, an income growth rate per citizen, or national product per citizen. Individually, as well as in the country as a whole, development is raised in the form of reducing and eradicating poverty, extent and poverty, etc. The farm is built on approximately 2 acres of field land, with the farm far away from the villagers' houses so as not to disturb the livelihood of the villagers. Whereas the geography of the farm is in the District of Orange County (Pan Friendship, 2025). He is 41 years old and his wife, Ra, Mao, live in the Silk Road District, he has 3 children who are studying in primary and secondary schools. It came from a career as a teacher at an elementary school in the Songsong District, Binh Province and the opening of a duck farm that enabled him to earn a daily income (National Institute of Statistics [NIS], 2025).

3. Critical Arguments

Raising ducks in the Farm

Raising ducklings for sale is a big objective that Uncle Hibora expects to receive from his farm to earn additional income for the family. On the other hand, as mentioned above, Uncle has 3 children. In addition, he understands that this duck raising job can help him to earn more income for his children's education supplies when they have more needs (Song Dani, 2025). In 2020, Bora attended a workshop hosted by CEDAC on the duck farming and community development for two weeks. Through various considerations and consultations, Mr. Hibora also decided to capitalize (duck farming) with some confidence and capital. He started the first duck farming with 370 ducks and cost capital of approximately 20,000,000 riels and till date he has probably over 10,000 ducks with total cost Nearly 347,400,000 KHR or USD 86,850 (NIS). Bora has a lot of chances to succeed with this duck rearing position because he has a number of resources that are potentially and conducive to this one. Personal farmland away from residents does not pose a nuisance to the population and creates an environment ideal for ducks. An area with a climate where ducks can live and thrive. The location of the land in the fields may yield some forage in the fields. There is sufficient funding to cover the process of nurturing. There is enough strength to take care of the ducks.

The Process of Farm Arrangement

Farms need to be constantly sanitized, both sleeping cages and play cages, ukuba. Breed selection is done meticulously, Mr. Bora understands that breed selection is important to be taken into account. In rearing, make sure that the breed of duck being raised is suitable to the purpose of rearing, i.e. if there is an egg-raising purpose, what kind of breed to choose and what kind of breed to raise meat, he thinks very much before deciding to invest in something because he does not have much capital for loss. For domestic breeds: easy to

raise as a family, disease resistant, weather friendly, but slow growing (DGAP, 2025). For imported varieties: Requires high maintenance, has little tolerance to weather conditions but is large in size, fast growing, and highly profitable on compliance with the right techniques. The breed of duck that Uncle Bora raises is a tribal duck breed because it gives a lot of eggs for raising eggs like him. Breeds produce a lot of eggs, large egg sizes, shells. Know the background: Duck sources come from places where there has never been a spread of diseases, especially smallpox, Be bright-eyed, witty, Heavyweight Healthy, weather-sensitive to the area to be taken to feed.

Nesting is also a factor to ensure the prevention of ducks from getting sick, as if the cages we have built, there is not enough light, there is no sanitation, there are germs that can make our ducks sick and cause the ducks to get sick all the time. Bora chose his plot of land, which is located about 3 kilometers away from the village, 3 hectares of land, with a pond of about 750 square meters, and he built his duck shed away from the sun, using cement as a pole, a shingle for the roof and a shed under the nest to keep moisture out, along with a net for surrounding the duckweed. The duck cage needs to be spacious and dry so that the ducks can absorb the air and make it easier for them to spawn. As already mentioned, the cage needs to be at least 2 meters to 2.5 meters high (Bora Kati, 2024). Water system is an important, indispensable factor in providing as a source of water for the ducks, we observed that the interior of his 5 nests, each of which we see has a water system, easy for the ducks to drink, is that he has taken a plastic hose, intertwined in a bundle, which protrudes from its large reservoir.

4. Conclusion

Duck farmers buy the duck eggs to be raised daily, and then harvests duck eggs every day for two days until they sells them at the market, the average price at which the farm sells duck eggs. One of the major potentials associated with duck farming is location of duck farming facilities, favorable climatic conditions, adequate water sources, and the market pushing for more ducks to flourish. By evaluating the economic efficiency of small-scale meat duck production and analyzing the strengths, weaknesses and restraint factors of meat duck production, it was actual situation of better and highly profitable farms. The farm owner paid attention to the environment without causing odors to affect the livelihood of the citizens by using locations far from the village and relocating multiple places according to specific conditions. On the whole, the farm owner was actually profitable because his farm was economically efficient.

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