Rabbit Farming Management Practices: A Case Of An EmergingRabbit Farmer/Producer

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Abstract.
Promoting rabbit (Oryctolagus cuniculus) farming responses to the challenges in food security and agricultural sustainability. The purpose of this study is to describe the management practices of emerging rabbit farmers/producers in rural areas in relation to their housing practices, feeding, breeding, and health and disease management. Also, it identifies the benefit and challenges of rabbit farming. Furthermore, a framework was developed in capacitating the rabbit farmers/producers to make rabbit farming ventures a sustainable livelihood in rural areas. Descriptive research was utilized; 33 rabbit farmers are the respondents of this study; a snowball sampling technique was used to identify the respondent. In- depth semi-structured interviews and observation were used in gathering the data. Findings revealed that farmers invest in galvanized wire cages but some use local materials like bamboo and used wood however they need to improve their housing design even its backyard rabbit raising. The majority uses a combination of rabbit pellets & forages that are locally available for feeding the rabbit. Also, most of them acquire their rabbit breed from local rabbit breeders where the challenge to the farmers is the quality and the inbreeding. Skin disease and diarrhea are common diseases in rabbits and farmers have knowledge of identifying the symptoms and also curing them. The major benefit of rabbit production it gives an additional source of income for rabbit farmers/producers while the major challenges are inadequate/limited knowledge of rabbit production and an unreliable market for rabbit breeds and meat.

Keywords: *Rabbit farming, Rabbit Management Practices, Housing Practices,Feeding,Breeding, Health and Disease Management.*

I. INTRODUCTION

In support of the sustainable development goal to stop hunger, realize food security and advance nutrition, and boost sustainable agriculture (SDG2) rabbit (Oryctolagus cuniculus) farming is being promoted and is a fast-emerging substitutefor livestock. According to [1] the domestic rabbit (Oryctolagus cuniculus) is one of the sporadic species typically saved as buddy animals who are similarly cultured for their meat and fur and likewise used for research and [2] endorsed rabbit meat as an alternative source of nutritional protein for the growing human population in emerging countries like the Philippines, where animal protein is in rapid supply.According to the United State Department of Agriculture, rabbit meat is one ofthe healthiest meats accessible to man; associated with other livestock and it is as well richer in protein, vitamins, and minerals [3, 4]. The study of [5] concludes that rabbit meat is white and has essential features which include low fat, sodium, and cholesterol contents but high protein content when related to other meats. Moreover, rabbit fat has smaller amounts of stearic and oleic acids and high magnitudes of essential polyunsaturated linolenic and linoleic acids [3]. Having these qualities make rabbit meat more progressive than other meats, hence there is a need to create demand for a health-conscious market.

Rabbit (Oryctolagus cuniculus) meat has been recognized as an appropriate alternative source of protein [6,7] and can help in addressing the growing demand for animal products and alternative sustainable sources of protein [8]. Several studies [9,10] mention the unique features of rabbit production such as high fertility, rapid growth rate, lesser input requirements, healthier feed usage, and valued output products like meat, pelt, manure, and urine are among the valued potentials of rabbits. Likewise,[11] states that the added features of rabbits are multi-use animals and can serve as pets, and also can be used in the laboratory as experimental animals. Rabbit fur can be utilized in garments and furniture. While the rabbit's foot was

considered a good luck charm for centuries, and even rabbit manure and urine are used as fertilizer [12,13,14].In the Philippines, the rabbit industry is not new [15] at the same time it is not familiar. Despite several rabbit farms in the Philippines this is still inadequate to create an industry that is recognized and accepted which leads to the disapproval of the market or society of the idea of consuming rabbit meat. Since rabbits are normally kept as charming pets. Nevertheless, the Philippines government is looking for an additionalsource of protein amidst the ASF and coronavirus pandemic and this was supported by a position paper from the Department of Agricultural and Applied Economics of the University of the Philippines Los Banos state that now is the time for the country to prospect and start determining alternative protein sources. Rabbit meat is a good optionsince there has been a growing interest in rabbit farming in the country.

With the development of many new rabbit farmers/producers and the creation of organizations like the Association of Rabbit Meat Producers, Inc. (ARaMP, lnc). that aims to helpthe progress of the rabbit industry in the Philippines [12]. The goal of the organization is to provide proper support and consumer awareness. They hope that rabbit productioncan be an alternative solution to hunger, undernourishment, and poverty.At present, there is limited information on rabbit production in the Philippines and also in the study area since interest in rabbit farming is just emerging. But, with the growing production of rabbit breed and meat in the study area, management practices that are currently utilized by farmers have an influence on the rabbit industry's performance and profitability. Hence, there is a need to determine capacity training for rabbit farmers/producers to make their rabbit venture profitable. The main purpose of this study is to document the management practices of rabbit farming/production in the Partido area. Specifically, it aims to identify the profile of the emerging rabbit producers; document the management practices of rabbit farming/production in terms of housing management, feeding management, breeding management, and health and disease management. Lastly, it determines the benefits and challenges of rabbit farming/production. The study may add to the body of knowledge in the discipline of animal science and improve management practices of rabbit farming and make rabbit farming ventures a sustainable livelihood in rural areas.

II. METHODS

The study utilized of qualitative-descriptive research design. Descriptivedesign was used in this study since it does not prove any theory but highlights the management practices of emerging rabbit farming in local rural areas. Hence, a qualitative approach is undertaken [16]. This study also contains synthesizing the information attained from several sources like interviews and documents into a comprehensible description of what was revealed; which is part of qualitative research.The study was carried out in the Partido District of Camarines Sur, particularlyin the municipalities of Tinambac, Tigaon, Sagnay, Goa, San Jose and Lagonoy. The study area was considered due to the reason there is a growing number of rabbit farming and local government unit support the advocacy for rabbit farming as part of food security and sustainability.The main respondents of the study are the rabbit producers, a snowball sampling technique was utilized to recognize the thirty-three (33) rabbit keepers/respondents for this study since there were no comprehensive lists of rabbit farmers in the municipal agriculture office of the study area.

Consent was secured fromthe rabbit keeper/producer respondent before they participate in this study and the voluntary nature of the interviews. Participants were assured of the confidentiality of their responses the data that will be provided by the respondents will be used for study proposes only.The study utilized both primary and secondary data. Primary data comes directly from the rabbit producers, their participation, and cooperation in sharing their rabbit farming management practices. An in-depth semi-structured interview and observation were used to gather data. According to [17] the interview method presents detailed answers and gives respondents independence of self-expression.The result was linked with other reviewed literature which was related to the study theme. [18] state that conclusions for new knowledge can be reached in a research study if there is reliability in the knowledge base and the theory. The result from the study areas was comprehensive to explain the management practices of an emerging rabbit producer in local rural areas.

III. RESULT AND DISCUSSION

A. Emerging Rabbit Producer in the Local Area

Figure 1 shows the profile of the emerging rabbit producer in the local area of the study. It indicates that the emerging rabbit producers are aged between 20 to 29 years old which is 42% with a mean age of 35 years old, the youngest rabbit producer is 18 years old and the oldest of 66 years old.This indicates that the emerging rabbit producers are farmers who are seeking additional livelihood and food for their households. The majority of the rabbit producers are male with 82% and 18% of their counterparts. Since the emerging rabbit producers are the ones seeking an additional livelihood in the rural areas, it was observed that males are more engaged in livestock since they are the provider in their families than their counterparts.

This is supported by the study of [19] on gender disparity with a high prevalence of men as family heads and according to [20] there is a cultural belief that rabbit farming is intended for men and boys, also there was a remark that contradicts the ancient perception that rabbit farming is a leisure activity for younger boys [21,22].In terms of educational background, the emerging rabbit producers are college graduates with 51%, this reflects that rabbit farming is increasingly undertaken by the educated [23] and it was noted that farmers with higher education levels can think critically, make better decisions, and choices [24] and it can simply adopt innovative farming know-hows [25], which takes an encouraging effect on their productivity. Followed by high school graduates with 27% while the remaining 15%, 3%, and 3% had college level, skill level, and elementary graduates respectively. Hence, there is a positive relationship between farmers' level of education and productivity stated in several studies [26, 27, 24].

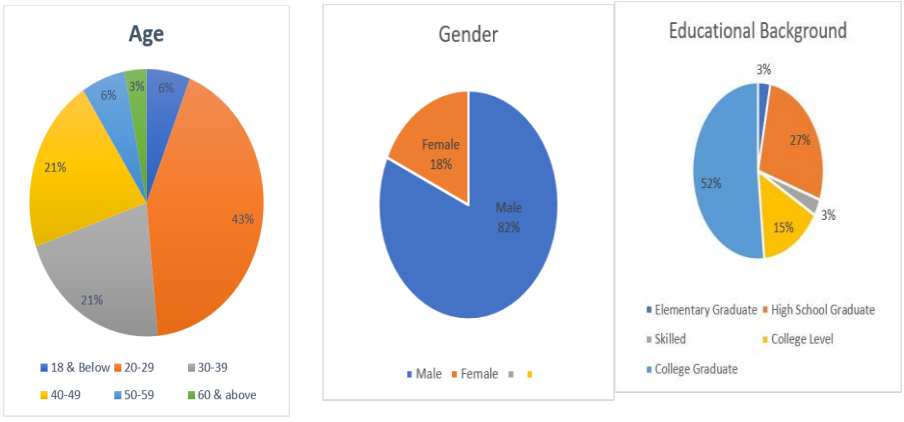

Fig 1. Profile of the Emerging Rabbit Producer

B. Management Practices of Rabbit Producer

Thirty-three (3) rabbit producers were interviewed in an in-depth semi- structured. The objective of the interview was to ask the 33 rabbit producers on what are their management practices in managing the day-to-day operation of their rabbit farm. There are four areas in the management of rabbit farms and two to five or more questions were asked for each management area. Below are the questions for each management area and the responses of the 33 rabbit producers.

Housing Practices.The questions asked were as followed: When did you start your rabbit production, and what housing and materials did you use? If you use a cage, did you use the standard size? Their responses were:

"I started my rabbit production two years ago in my backyard and at the start, I use a cage made of bamboo & coco lumber since I have limited capital back then. However, at present, I am using a cage made of galvanized iron. This is more durable as compared to bamboo and coco lumber. As to the size of the cage, I use different sizes depending on the stage of the rabbit. Like I use a 1.5x2x1.5 cage for the breeder while another size of the cage is 2x2x3."

"I have been in rabbit production for almost 4 years. The housing for my rabbit production, I built it on my own, the cage stand is a bamboo recycled foot chair that is made of tube pipe. I also ask for the help of my co- rabbitry breeder when I set up the housing and cages for my rabbit production. I use several sizes of cage depending on the stages of the rabbit fora breeder cage I use 16 x 48 x 16, and for a grower cage I use 12 x 48 x 16 both rectangular shapes."

Among the 33 respondents, the oldest rabbit producers started last 2017, and majority last 2020, and the most recent were in 2021. This reflects that rabbit farmingin the study area was just in the early stage. Mostly or 61% of the rabbit producers started rabbit farming 1 to 2 years ago, there are 24% with 3 to 4 years of experience inrabbit farming and the remaining 15% have less than 1 year of experience. According to [10] rabbit farming remains to entice new farmers. Though to advance rabbit production there is a need for a new production system and this will take 7 years on average to obtain the right attitude and parent stock availability [20]. [28] state that rabbit producers will improve their farm productivity if they are well aware of the process and gain more experience.Generally, or 97% of the respondent uses cage as their housing for their rabbit production and started in their backyard. It was also observed that most of the respondents built their rabbit cage utilizing locally available materials such as used wood, coco lumber, bamboo, chicken wire, rebar, tire wire, mesh wire, metal rods, bricks, flat sheets, galvanized iron for roofing & nipa. Other respondents purchase cages that are made of galvanized iron for longer use. This result is similar to the study of [29] which state that majority of the rabbit producer caged their rabbit and that the same materials were used by their respondent for the housing of their rabbit [29,30].For the size of the cage, the majority of the respondent used diverse sizes of cages depending on the stages of the rabbit and did not follow the general size of the cage which is 2.5'x2'x2.5' [31]. They have cages for grower rabbits, breeder rabbits, and hole breeder rabbits.

Fig 2. Poor Housing Design

Fig 3. Small-Scale Rabbit Production Housing Design using Galvanized cage

Feeding Practices. The questions asked were as followed: What forages do you feed the rabbit? What are your sources of forages or where do you get forages? Do you still provide rabbit pallets? *And what is the frequency of feeding the rabbit? Their responses were:*

"The forages I feed with my rabbit are Napier grass (Pennisetum purpureum Schumach), banana leaves (Musa acuminata), and Madre de agua (Trichanthera gigantea) since they are abundant within my area and I usually air dry the forages. Yes, I use a combination of rabbit pallets and forages for the food of the rabbit since they need a balanced diet and I feed them twice a day."

*"Hay Grass (Timothy grass), Kangkong or water spinach (Ipomoea aquatica), sweet potato leaf or Camote leaves (Ipomoea batatas), bamboo leaves (Phyllostachys edulis), malunggay leave (Moringa Oleifera) were the forages I feed for the rabbit and my sources are in my backyard, nearby grassland and neighbor's garden. I also use a combination of rabb*it pallets and forages. I feed the rabbit as much or as often as necessary."

The first five most common forages that the respondent utilized to feed their rabbit are banana leaves (*musa acuminata*), Napier grass (*pennisetum purpureum Schumacher*), malunggay leaves (*moringa oleifera*), kangkong or water spinach (*ipomoea aquatica*), Madre de agua (*trichanthera gigantea*). It was also observed that respondent identified at least 27 forages that they could use to feed their rabbit. Here are the other forages that they utilized: paragis or wire Grass (*eleusine indica*), mulberry leaf (*morus alba*), sweet potato leaf or camote leaves (*ipomoea batatas*), synedrella (*synedrella*), hay grass (*timothy grass*), cabbage (*brassica oleracea var. capitata*), jackfruit leaf (*artocarpus heterophyllus*), mani-mani leaves (*arachis pintoi*), bamboo leave (*phyllostachys edulis*), palay leaves (*oryza sativa linn*), indian mango leaves (*mangifera indica*), maramais (Trypsacum laxum), Cassava leaf (Manihot esculenta), Vetiver grass (Chrysopogon zizanioides), alugbati or malabar spinach (*basella alba*), madre de cacao (*gliricidia sepium*), papaya skin (*carica papaya*), oregano (*origanum vulgare*), lubi-lubi (*ficus pseudopalma*), cacao leaf (theobroma *cacao*), carrot (*daucus carota*), carabao grass (*paspalum conjugatum*).

It was noted that most of the respondent's sources of their forages are their own produce from their backyard, and they also gathered from the idle lands, the side of the river, and schoolyard. Since forages are abundant in the local areas. Accordingto [32] with the increasing cost of rabbit concentrate feeds rabbit producers opted to make use of forages in feeding rabbits and this is a common practice. Like in Nigeria the diets of rabbits are mainly forages, grasses, and legumes supplemented with kitchen wastes and agricultural by-products such as dried cassava peels and wet-milled cereal by-products [33].It was also observed that the majority of the respondent provide both rabbit pallets and forages for the food of rabbits and they feed twice a day or as often as necessary. However, the usage of forages only cannot withstand the ideal productivity of rabbits hence it necessity for supplements [34]. Predominantly in the case of tropical grasses that are relatively less edible, low in protein, and high in lignin compared to temperate ones [34]. Moreover, rabbits raised on forage alone have been noticed to produce an inferior rate henceforth taking longer to achieve slaughter weight [35].Several studies on rabbit farms have discovered that for most producers, the important factor of feeds offered to rabbits is the local availability [36, 37, 38]. It was observed that this may be the consequence of the low level of commercialization of the rabbit enterprise as noted by [39] in several areas of the tropics.

Breeding Practices. The questions asked were as followed: How did you acquire your rabbit? At present how many rabbits do you have and what are the breeds? Do you practice giving identification numbers for the new breed? Can you share your reproduction management practices for your rabbit production Their responses were:

"I acquired the rabbit from the local rabbit breeder and at present, I have 31 does and 12 bucks a total of 43 rabbits. For my rabbit breed, I have new zealand, fuzzy lop, PS100GI, and upgraded Flemish giant. I also plan to engage in rabbit meat production and selling. I don't give the identification number for the new breed I just memorize them or get familiar with the new breed I have."

For the reproduction management practices that I have, I observe the following practices: First, when the doe is six (6) months old they are now ready for reproduction so I put them in the cages of the buck

for mating. After 3-5 successful mating is done in the morning or evening, I removed the doe and assume the doe is already pregnant and give them vitamins of b-complex. Before the doe will give birth, I put a breeder box or plastic try before kits are born and this is where the mother doe will give birth. Second, after the mother doe gives birth, it will rest for 90 days until it recovers her body. After 90 days mother doe is now again ready for mating it repeats the cycle of reproduction. Third, the weaning of kits needs monitoring, checking of foods and water, and cleaning of cage and housing are essential during this stage. Like checking nesting trays with dry leaves and ensuring adequate ventilation and monitoring the mother doe in nursing the kits more frequently.

It was observed that the method of acquiring rabbits of the respondent mostly acquired from other local rabbit breeders. According to [23], if other rabbit breeders are the core source of rabbit stocks, having this practice, the challenge to the farmers is the quality and varied breeds of rabbits that include upgraded and/or imported rabbits [40,21]. Thus, according to [10] the rabbit stocks, productivity and quality are affected by the practices of acquiring rabbits from other farmer breeders and it can contribute tothe spread of diseases among farms [41]. Other respondents acquire through the market and few from online Among the respondent, the largest rabbit production has 98 rabbit heads and the smallest was with 6 heads, and a mean of 18 heads. This indicates that the majority of the respondents are micro to small-scale rabbit producers. And the common breed the respondents have are the following: *new zealand, crossbreeds, lion head, california white/dutch, and local new zealand. Other respondents have holand lop/lion lop, palomino, hyla optima, chinchilla, and upgraded flemish giant.* Various studies reflect the same results where New Zealand and Crossbreeds are the common breeds utilized by the rabbit raiser [23, 21, 39], which reflects that the breed is associated with their good growth features and high carcass weight. Also, these two breeds are also generally accepted as meat breeds [34] that are reported to reach a live weight of 2 kg under tropical environments within 12 to 15 weeks [35].

Fig 4. Rabbit Breed Keep by the Respondent

It was noted that most of the respondents just familiarize themselves with the breed, age, features, and size or memorize it mentally and they are not practicing giving an identification number for the new breed. Since they have micro to small- scale rabbit production and it is still manageable to just familiarize themselves or some use a blackboard for recording the names given to the rabbit and some use calendars and put them in separate cages. While others use both recording and familiarization of its breed & age. However, poor keeping of breeding records could lead to inbreeding [42, 43] emphasize that inbreeding could lead to an overall decline in the performance of the animals due to reduced growth rates and intensified both mortality and frequency of hereditary defects.

Health and Disease Management. The questions asked were as followed: What are the common diseases the rabbit experiences? What are the symptoms of rabbit disease? How do you treat the disease of the rabbit? Their responses were:

"In my experience, the common disease the rabbit experience is skin diseases like mange and diarrhea. The symptoms of this disease, it will notice that their stool is thick or watery. Sometimes the rabbit loses its appetite and has no strength. I give them medicine and isolate them from the other rabbit."

"Diarrhea and heat stroke is the common disease experienced by my rabbit. Diarrhea if I fed them (the Rabbit) fresh veggies that were supposed to be given a day after in order to remove the excess water on the leaves & stem. Actually, I have no knowledge of the symptoms, if I notice the unusual behavior of the rabbit, I search for it on the internet and ask fellow rabbit producers for advice on what to do if the rabbit has diarrhea and heat stroke. I gave the rabbit leaves of star apple for their diarrhea and also dextrose powder once a week to their drinking water".

The most common disease experienced by rabbits is skin diseases like ear mites and mange. According to [44], skin disease like ear canker was the major parasitic infection of rabbits, followed by mange which is also a skin disease and the most vital disease affecting rabbits. Ear canker was the effect of poor hygiene and the mite attack on the ears [20] while [45], emphasizes that mange causes rabbits to lose appetite, and body condition and stunts the growth rate, and it is vastly transmittable which can spread easily between sick and healthy rabbits and become a usual and major constraint in rabbit production [46] that resulted to economic losses and animal welfare problems on rabbit farms [47]. The respondent of this study mostly has the knowledge to identify the symptoms of rabbit disease for their rabbit production.

Discharges around the eyes, ears, nose, or anal area; loss of appetite; depression; diarrhea; head tilt; loss of balance and labored breathing are the symptoms identified by the respondent in the study [29] which is similar to the symptoms mention by the respondent of the study. These symptoms are not verified by animal health practitioners since they are not available in the study area. However, in the study by [48], it was noted that despite the fact that farmers' capacity to recognize rabbit disease symptoms/signs they still would not seek treatment for their rabbits from animal health practitioners even if they are available.As to how the respondent treated the disease of the rabbit, they do self-treatment and provide vitamins, good food, and water to the rabbit, they also isolate the rabbit from other rabbits and maintain the cleanliness of the cages. Self-treating of sick rabbits by the keepers is widely practiced [41, 49] which is similar to the response of the respondent of this study. This was attributed to poor accessibility of veterinary services/rabbit health experts [13, 23] and due to high costs [23].

C. Benefits and Challenges of Rabbit Production

Thirty-three (33) rabbit producers were interviewed in an in-depth semi- structured. The objective of the interview was to ask the 33 rabbit producers about the benefits and challenges they perceive and experience in rabbit production. Below are some of the responses of the 33 rabbit producers:

"Rabbit meat offers healthy meat with more nutrients recommended by doctors, this is one benefit of rabbit production However, my greatest challenge is the market for rabbit breed and meat. I have a lot of production and fewer buyers so I had a problem with the maintenance expenses of rabbit production". Other opportunities or benefits for rabbit production are the by-products such as the urine of the rabbit can be used for in my backyard toavoid insects and ants; the poops of the rabbit can be used as organic fertilizerfor plants and fruit-bearing trees, and the fur can be preserved w/ salt & dried (dry sun) for display".

"*For me, selling and producing meat and also helping other localsengage in rabbit farming are some of the benefits I get from rabbitry production. However, the following are the challenges I encountered: the availability of good replacement bucks to avoid inbreeding; I observed females are fast selling their male counterparts; limited buyer swhich is usually the breeder only; there is no available market yet for rabbitmeat and the price for the material in building cages."*

"*The trials I experience in rabbit production are more on the mortality rate & marketing the live rabbit which has a low demand. I am hoping for the market to widely recognized rabbit meat as additional meat in the market and food on the table. Although, I am still learning while I am managing my rabbit production. And one benefit I experienced from rabbit production is it can be a source of additional income to my family".*

From the responses of the rabbit producers, it was observed that the major benefits of rabbit production are it gives them an additional source of income for their household. It was noted that while the majority started rabbits as a pet, eventually with the perceived opportunities of generating income from

rabbit production they shifted from rabbit as a pet to rabbit production as an additional source of income and also additional food for their household. Since they already experience eating rabbit meat, they start selling rabbit meat and rabbit meat processed.However, it was also noted that some or other respondents' initial intention when they started their rabbit production was to sell rabbit breeds and rabbit meat to offer more healthy meat in the market.Since rabbit production in this study is still in its infancy stage, rabbit producers encounter several challenges. It was noted that the two (2) major challenges mentioned by the respondents during the interview are inadequate/limited knowledge of rabbit production and an unreliable market for rabbit production and meat.

Inadequate/limited knowledge of rabbit production includes how to deal with rabbit diseases, environmental conditions, skills deficiency, predation [50, 10], failure to purchase good quality feed [51], and lack of access to the market [50, 10, 52]. This is in agreement with the findings of [53] that lack of proper awareness and poor marketing channels are the challenges in rabbit production.Other challenges mentioned by the respondents of the study are the weather, time-consuming and limited space for rabbit production, price of cage & production, lack of awareness of people in eating rabbit meat, higher production cost, and unreliable source of rabbit breed. This is similar to the other challenges identified in other studies that include critical environmental conditions such as heat stress, poor stock, poor diet quality [54], lack of access to credit and feeds [30, 55, 28] high cost of rabbit feed and quality of feeds [56]. In addition, the lack of Government support, lack of research support, and inadequate extension/technical support are the challenges in rabbit production reflected in several studies [30, 51, 55].

D. Framework of Capacity Training for Emerging Rabbit Farmers/Producers inthe Rural areas

This study proposed a framework to capacitate emerging rabbit farmers/producers in rural areas to make their rabbit venture profitable and sustainable, which will also contribute to food sustainability and offering healthier meat to the market. Developing a framework to capacitate the emerging rabbit farmers/producers considered their existing management practices. The existing management practices of rabbit farmers/producers include their housing, feeding, breeding, and health and disease management.

For housing practices, the emerging rabbit farmers need training in housing design so that they can put the cages of the rabbit, secure the place from predators and noises, and also the housing maintenance. While for feeding, emerging rabbit farmers need to know the different forages and their uses, also the proper way of feeding the forages. For breeding practices, they need training for standardreproduction systems and a strategy for record keeping of the newly born rabbit to avoid inbreeding.

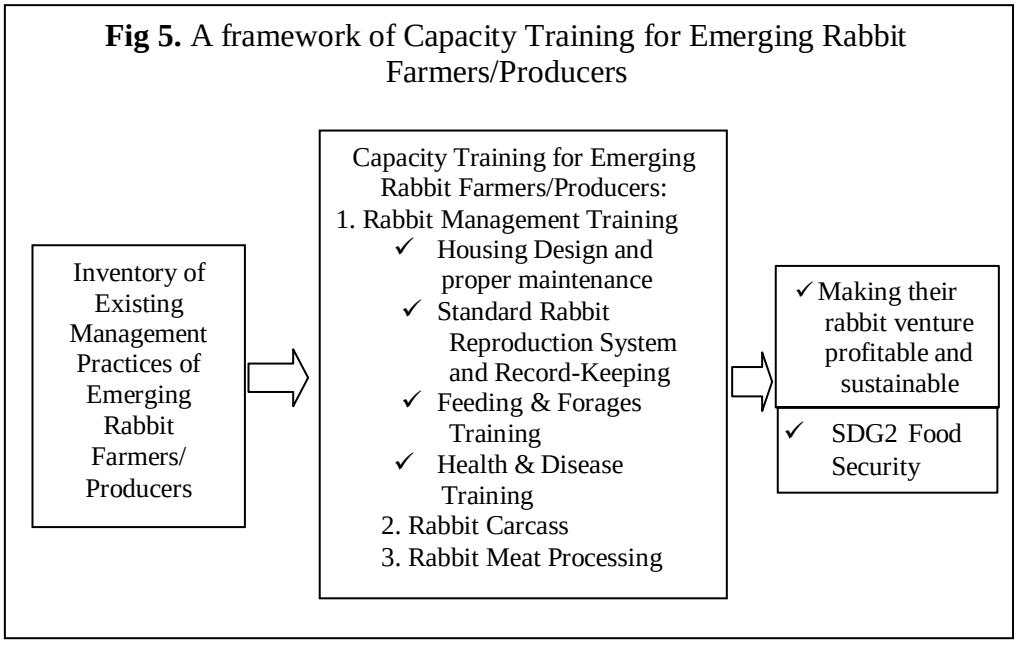

Fig 5. A framework of Capacity Training for Emerging Rabbit Farmers/Producers

Lastly, for health and disease management, emerging rabbit farmers need to know what are the different diseases the rabbit might experience, what are the symptoms, their medication, and preventive measure. Aside from the management practices the emerging rabbit farmers also need training for carcass and processing of rabbit meat. Below is the framework of the capacity training for emerging rabbit farmers/producers:

IV. CONCLUSION

To scale up rabbit production or rabbit farming in the Partido area of Camarines Sur it needs to improve its management practices as for housing it needs to level up from the backyard and local material to come up with a better housing facility that is more convenient for their rabbit production and use galvanized wire for the cage. For feeding practice, to maximize the use of forages available in the local area. For breeding practices, follow the standard procedure for reproduction management and practice record keeping of identification of new breeds to prevent inbreeding that might result in low quality of the breed. For health and disease management, consult ananimal or veterinary expert in treating the disease of rabbits to avoid the spread out of the disease.Capacity training for emerging rabbit farmers/producers in the study area in terms of technical know-how on the management of rabbit production is needed and a massive campaign of information about rabbit meat is likewise desirable to increase awareness of the market as to the benefits of eating rabbit meat and to increase demandand market for rabbit meat.

V. RECOMMENDATION

The following recommendations are suggested based on the present findings ofthe study:

1. Technical information on rabbit farming such as housing practices, feeding, breeding, and health and disease management should be provided to therabbit producers in the Partido area to improve their rabbit production management practices and level up from backyard rabbit raising to a semi- commercial. To quickly disseminate technical information to farmers,digitalization or online seminar or material will play a key role.
2. Extension activities should be strengthened in order to mobilize more farmers to venture into rabbit production.
3. There is a need to establish a massive market campaign and awareness for rabbit meat as additional food on the table and in households. In an effort to popularize rabbit farming, countrywide roadshow campaigns focusing onthe nutritional attributes of rabbit meat should be mounted.
4. Further research in rabbit production management practices covering a wider area and a huge number of breeders is highly recommended.

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