

Annual Report

(FY 2074/075 BS)



Prepared by
Shyam S. Yadav, Livestock Development Officer



Government of Nepal
Ministry of Agriculture and Livestock Development
Department of Livestock Services
National Livestock Resource Management and Promotion Office
Cattle Genetic Resource Center

Jiri, Dolakha

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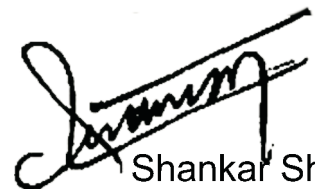
Preface

Livestock farming is an integral part of the Nepalese farming system which is supposed to be the backbone of the rural economy. Livestock is raised for income generation, social security, agricultural operations and religious sentiments. The increasing demand for the livestock products due to the increasing population as a result of better road linkage and transportation facilities has triggered initiation of commercialization process leading to increasing production of milk, meat and their products. Feeding, breeding, health management and market access are the factors that are important for increasing the livestock production and productivity. The farmers can manage all these inputs and services after receiving training and required inputs in an appropriate time frame.

The Livestock Development Farm Jiri is the genetic resource center of Jersey cattle with higher genetic values. Landrace and Yorkshire pig and their crossbreds. Animal feed is one of the important components for increasing productivity of livestock. In addition, the use of forages as animal feed reduces the cost of production of livestock products and makes farming more profitable. The farm has been producing and distributing calves, piglets and forage seeds of Ryegrass (*Lolium perenne*) and Paspalum (*Paspalum dilatatum*) suitable for alpine areas such as Jiri.

The major activities performed by the farm during the FY 2074/075 BS have been presented in this report and it has been expected to be useful for all those who are interested in livestock farming. I would like to apologize for the unintentional lacuna and mistakes in this report and expect to receive feedback for its improvement.

I would like to express special thanks to Mr. Shyam S. Yadav (Livestock Development Officer) for his endeavour to prepare the report in this form and the business plan of pig production. Similarly, I express my sincere appreciation to Mr. Tek Narayan Paudel (Livestock Technician), Mr. Amar Bahadur Oli, (Livestock Technician), Mr. Ram Krishna Bhandari (Assistant Livestock Technician), Mr. Bal Kumar Dahal, (Assistant Livestock Technician) for their consistent effort on data compilation. I would like to thank all the office assistants for their hard work and co-operation for bringing this farm to the existing shape and achieving the farm's objectives.



Shankar Shah

Senior Livestock Development Officer

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Abbreviation

%	:	Per cent
±	:	Standard Deviation
Act.	:	Acting
AD	:	anno domini
AI	:	Artificial Insemination
BS	:	Bikram Sambat
CGRC	:	Cattle Genetic Resource Center
CLDP	:	Co-ordinated Livestock Development Program
CPU	:	Cattle Production Unit
D	:	Duroc
DLSO	:	District Livestock Services Office
Freq.	:	Frequency
FY	:	Fiscal Year
GM	:	General Manager
GoN	:	Government of Nepal
Hac	:	Hectare
JMDP	:	Jiri Multiple Development Project
km	:	Kilometer
L	:	Landrace
LDF	:	Livestock Development Farm
Liv. Dev.	:	Livestock Development
masl	:	meter above sea level
Mt	:	Mount
mt	:	metric ton
NARC	:	Nepal Agricultural Research Council
No.	:	Number
NRs	:	Nepalese Rupees
PAFDU	:	Pasture and Fodder Development Unit
PPU	:	Pig Production Unit
SN	:	Serial Number
ToR	:	Terms of reference
VDC	:	Village Development Committee
Y	:	Yorkshire

Introduction

The Jiri valley, known as Nepal's Switzerland and the gateway to Mt Everest, a small town having around 16,000 population is situated in Dolakha district that is surrounded by Maali (Batase), Buldada, Cherdung and Tame hills from east, west, north, and south, respectively. It lies in the central part of the district and 55 km away from the district headquarters, Charikot as well as 188 km from the capital city of the country, Katmandu.

The Cattle Genetic Resource Centre (CGRC) up to Fiscal Year (FY) 2074/075 BS known as Livestock Development Farm (LDF) is situated in the heart of the panoramic Jiri valley. The Government of Nepal (GoN) changed the name of the farm as CGRC since last FY. The periphery of the center associates to ward number four, five and six of the Jiri municipality. It has about 209 Hac of land consisting 84 in Jiri and 125 in Khimtee, Gokulganga rural municipality (Table 1). It is situated at an altitude of 1935 masl and located between the latitude of 27°38' north and longitude of 84°14' east.

The climatic condition ranges from mild warm to the temperate. In winter, there is much less rainfall than in summer. In Jiri, the average annual temperature is 14.3 °C. July is the hottest month of the year. In January, the average temperature is 7.0 °C. Sometimes it goes below to zero. Precipitation is the lowest in December, with an average of 4 mm. Most precipitation falls in July, with an average of 577 mm.

Historical background

The small valley of Jirels (Sherpa community) was in a tough living condition at the base of Mt Everest. A Swiss Geologist, locally considered as the first known arrival of a foreigner in Jiri, Dr. Toney Hagen came to Nepal in 2013 BS via the road of Khadichaur in order to visit mountain base camp. During his trip he stayed in a local house of farmer where he found a very warm hospitality behind poverty. His heartfelt behold of the farmers' poverty. He observed about the occupation of people and realized the primitive ways of agriculture and livestock farming. He found this place similar to the Zurich city of Switzerland so he tried to establish a livestock farm in Jiri in order to upgrade the lifestyle of native farmers. It is said that he took further initiation to establish the livestock farm.

The farm was established in the FY 2014/015 BS as the LDF Jiri under the financial and technical assistance of the Swiss government. It was later renamed as Jiri Agriculture Station.

In the year 2018 BS the Agronomy, as well as

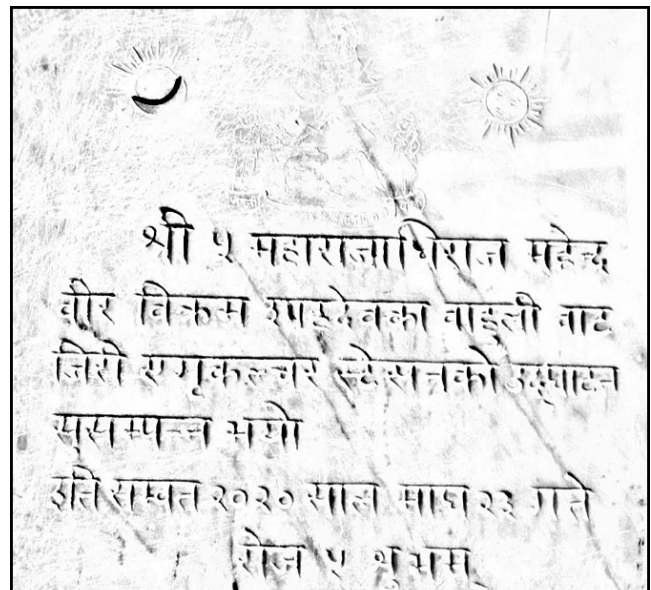


Figure 1 Rock inscription of the inauguration of the farm

the Horticulture Sections, was also included in this station. In order to extend the livestock farms activities intensively, a Cattle Breeding Section at Khimtee, Lahare VDC of Ramechhap district was established in the fiscal year 2019/020 BS. The late king Mahendra Bir Bikram Shah Dev inaugurated this Jiri Agriculture Station on Magh 23, 2020 BS.

Prior to the establishment of the farm, it had been being used as the government pastureland. On those days, the entire area of the farm was swampy. Latter on the Swiss technical experts improved and converted the area into cultivated land by constructing open and underground drainage canal to run off the water. Possibly, this is the one and only sub-surface drainage system in Nepal.

Jiri River divides this farm into two portions resulting in the eastern and the western mass. Almost all the infrastructure lie in the eastern mass. However, the western mass contains most of the pasture land.

In the year 2024 BS, a veterinary unit was also established here in order to provide animal health services in this region. Later, in the FY 2026/027 BS, this unit was converted into Veterinary Hospital.

As these institutions were under different ministries, it was difficult to coordinate alone by Jiri Agriculture Station. Hence, to bring all the institutions under one umbrella, Jiri Multiple Development Project (JMDP) was established. It was guided by a board at apex bodies. The representatives of all the line ministries used to be the members of this board. Thinking the practical difficulties in coordinating all the line agencies then government in FY 2028/029 BS, decided to set all the components of the project independently who thereafter, had to be responsible to their respective ministries. After this decision, the chief of the Jiri Agriculture Station used to be the Chief Officer.

During the FY 2029/030 BS, the crop development component under the station was shifted to Kabhre VDC as an agricultural farm. After that, the Co-ordinated Livestock Development Program (CLDP) of Dolakha and Ramechhap districts was also established here in the FY 2037/038 BS. Again, the horticulture component of the station was shifted to Boch of Dolakha district in the FY 2042/043 BS. In the same way, Veterinary Hospital of Dolakha district was sifted to Charikot and CLDP of Ramechhap to its district headquarter. Thus, all the sections of Jiri Agricultural Station

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क्र.सं.	नाम	पद	कार्य अवधि		कैमिफ्रम
			दालि	सम्म	
१	JOHN MUNGSH	JOINT MANAGER	२०१५/१	२०२०/१	
२	श्री प्रकाश ठकुरि	सहाय अधिकृत	२०१८/१	२०२१/१	
३	डा. हेमन्त बहादुर रायजुङ्ग	जगत सेवक	२०२२/१	२०२३/१	
४	श्री अमरबहादुर ठकुरि	सहाय अधिकृत	२०२१/१	२०२३/१	
५	श्री डेबकी रान रेली	" "	२०२१/१	२०२३/१	
६	श्री राज प्रसाद अधिकारी	का.सु.सु.अ.	२०२४/१	२०२३/१	
७	श्री राम चन्द्र राय	सहाय अधिकृत	२०२१/१	२०२३/१	
८	श्री रामसिंह राय	का.सु.सु.अ.	२०२१/१	२०२३/१	
९	श्री रमेश प्रसाद अधिकारी	" "	२०२३/१	२०	
१०	श्री प्रकाश ताम प्रधान	" "	२०२३/१	२०२१/१	
११	श्री रमेश प्रसाद प्रधान	" "	२०२१/१	२०२१/१	
१२	श्री रमेश प्रसाद प्रधान	" "	२०२१/१	२०२१/१	
१३	श्री रमेश प्रसाद प्रधान	" "	२०२१/१	२०२१/१	
१४	श्री रमेश प्रसाद प्रधान	" "	२०२१/१	२०२१/१	
१५	श्री रमेश प्रसाद प्रधान	" "	२०२१/१	२०२१/१	
१६	श्री रमेश प्रसाद प्रधान	" "	२०२१/१	२०२१/१	
१७	श्री रमेश प्रसाद प्रधान	" "	२०२१/१	२०२१/१	
१८	श्री रमेश प्रसाद प्रधान	" "	२०२१/१	२०२१/१	
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२९	श्री रमेश प्रसाद प्रधान	" "	२०२१/१	२०२१/१	
३०	श्री डा. सुधीर कुमार सिंह	ब.प.वि.अ.	२०२०/१/२		

Figure 2 Name list of the chiefs

were made independent in the FY 2042/043 BS and only LDF remained at Jiri and its branch under this at Khimtee.

Almost all infrastructures and buildings (26 out of 29); cattle shed, pig shed, hay store, office building, staff quarters were destroyed by the destructive earthquake in 2072 BS. Some of them have been waiting for renovation and new construction, and some of them are under construction. From past to reporting date about more than two and half dozen of the chiefs worked for this farm (Table 2).

The government renamed the LDF as Cattle Genetic Resource Center (CGRC) Jiri from Asar 32, 2075 BS with the new terms of reference (ToR).

Summary of the proposed new ToR of the center¹

The center lies under the central government of Nepal to conserve, promote, utilize and improve the cattle genetically at the national level in the country. In addition, it has the mandate of adapting and transferring of improved technologies related to cattle development to increase the productivity. The center has the following objectives and ToR;

Proposed objectives of the center

- Develop, expand and manage the cattle nucleus herds.
- Adapt and transfer the newly developed appropriate technologies related to cattle development.
- Adapt and transfer forage and pasture development related technologies for alpine area.
- Conserve, promote and utilize the genetic resource of the cattle.

Proposed ToR of the center

- Establish and manage the nucleus herds of cattle at the national level.
- Maintain the pure line breeds of cattle.
- Develop and transfer cattle related technologies to increase milk.
- Adaption of embryo transfer technology to improve the breeds of cattle.
- Develop proven bulls.
- Conduct the outreach program with using improved technologies.
- Conserve, manage, promote and utilize the local cattle in-situ and ex-situ.
- Work in collaboration with Nepal Agricultural Research Council (NARC), Universities, and other national as well as international organizations.
- Conduct training, visits, tours, workshop related to cattle development.

1 Cattle Genetic Resource Centre

Objectives of the farm²

The farm had long and short term objectives as to achieve its expected targets up to last FY 2074/075 BS.

Long term objectives of the farm

- Production of Jersey breeding bulls.
- Maintaining a nucleus heard of Jersey cattle.
- Production of piglets for distribution to the pig breeders.
- Maintaining nucleus herds of Yorkshire (Y) and Landrace (L) pig.
- Production of annual and perennial forage seeds; White clover, Ryegrass, Paspalum and Oat suitable for high altitude.

Short term objectives of the farm

- Production of male and female calves for distribution in the outreach areas.
- Production of improved piglets for distribution to the Pig fatteners.
- Conducting different types of training related to fodder production, livestock husbandry practices, feeding, breeding, and marketing management.
- Conducting different action researches related to the improvement of livestock management and its productivity.

Strategies of the farm

Cattle improvement

- Intensive care of existing herd by utilizing farm resources such as land labor, equipment and optimum level of feed supply for maintenance and production.
- Maintaining the record to identify the production parameters such as cows on heat, Artificial Insemination (AI) or natural service, estimation of calving date, the practice of drying cow prior to parturition.
- Adaption of proper calf rearing and weaning practices, which enhance better performance in the successive lactation.

Pig improvement

- Maintaining pure line L and Y sows on the basis of individual selection.
- Improvement in the existing pig shed such as; piglets rearing room, farrowing room, and sick room.

2 Livestock Development Farm

Pasture development

- Seed collection of annual and perennial grasses as; White clover, Ryegrass, and Paspalum.
- Oat and Ryegrass cultivation for winter feeding.
- Regular cultivation of Maize for silage production.

Outreach area

- Proper mainstreaming of Jersey bull in outreach areas.
- Improvement in farm management practice.

Miscellaneous

- Regular cleaning and maintenance of underground and surface drainage.
- Maintenance of irrigation canal for the cultivation of forage crops.
- Reconstruction of farm building and other physical infrastructures.

Major components of the farm

There are three major components of the farm; Cattle Production Unit (CPU), Pig Production Unit (PPU) and Pasture and Forage Development Unit (PAFDU).

Cattle Production Unit (CPU)

The LDF is one of the major research and production center for Jersey cattle. It was earlier Brown Swiss cattle farm and later the farm introduced Jersey nucleus herd from the FY 2057/058 BS. The crossbred breeding bulls were distributed through the different District Livestock Service Offices (DLSOs) to the farmers in dairy cattle pocket areas. Those bulls were used for genetic improvement of the cattle through

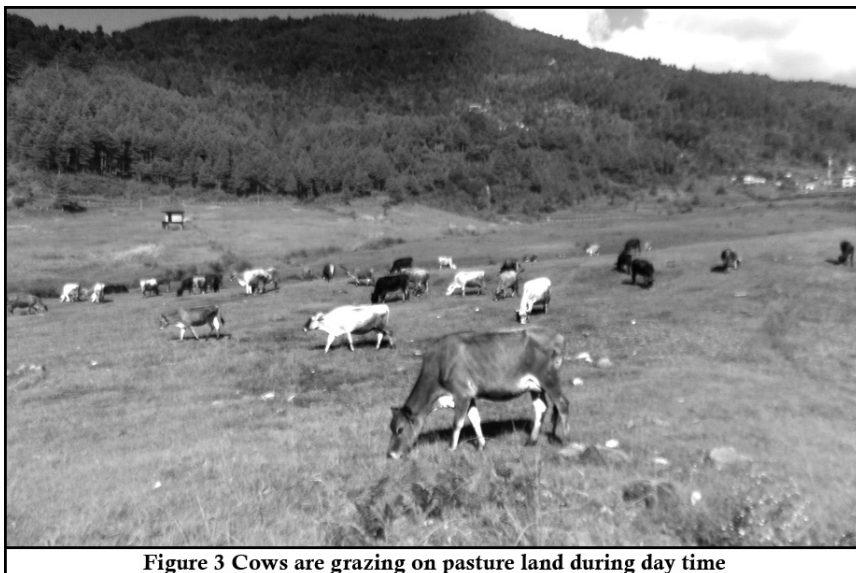


Figure 3 Cows are grazing on pasture land during day time

natural breeding in the areas where AI service not available. The female calves were kept as a replacement stock and the males were used as breeding bulls.

Stock details and mortality

During the FY 2074/075 BS, on average, about 123 cattle were reared at the farm that ranges from 107 to 159. Out of these, large male ranges from one to twenty-three and female 63 to 97.

Similarly, the number of small male ranges from 15 to 31 and female ranges from 7 to 26 (Table 3). During the last FY 2074/075 BS altogether 49 cows had given birth to their calves. About 40 (20 male calves) cattle were auctioned in Mangsir 2074 BS.

The farm has been providing AI service to the cows. During the last FY, about 180 cows were inseminated artificially. The farm has also breeding bulls at Jiri as well as at Khimtee. The bulls had served to 78 cows (Jiri 23 and Khimtee 55). Similarly, the farm had also buffalo-bull that served to 35 buffaloes in Khimtee area. The buffalo-bull was actioned in 2075 Asar.

During the last FY nine cattle died, out of these five were from cows and remaining were from the small group; male and female calves 4.76 and 4.65 percent (Table 4) respectively. The average calve's mortality was 8.16 percent in the FY 2074/075 BS (Table 9). The average mortality of the cattle at the farm was recorded by 5.14% (Table 4).

Milk production at the farm

The monthly average milk production was 171.79 ± 56.81 liter, $n = 413$ ranging from 127.51 ± 40.11 , $n=33$ to 221.11 ± 71.44 , $n=40$ liter. The daily average milk production was recorded 5.73 liters ranging from 4.25 to 7.37 liters (Table 5). The monthly maximum milk production by the individual cow was recorded 496.3 liters. Similarly, the daily average of maximum milk

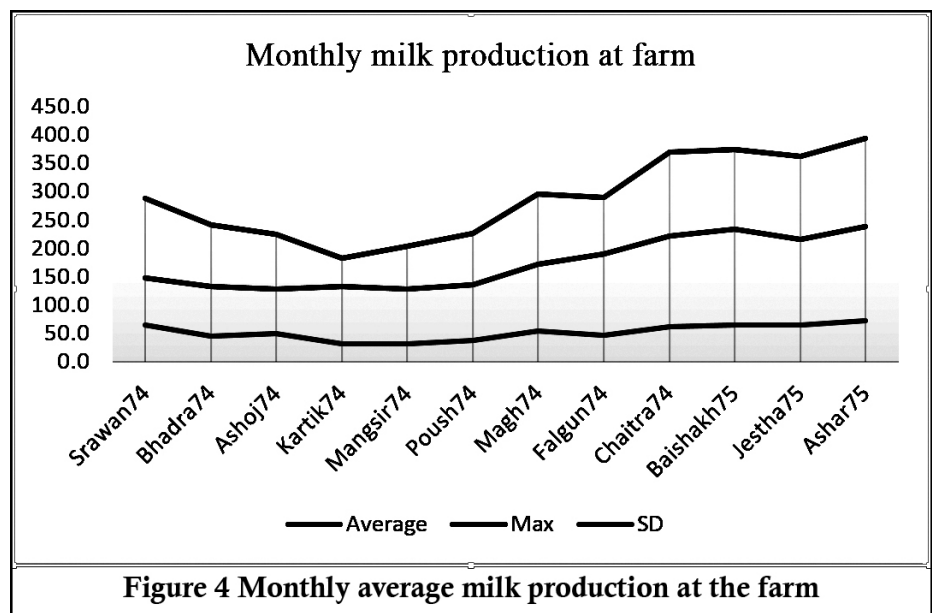


Figure 4 Monthly average milk production at the farm

production by the individual cow was 10.56 ranging from 7.19 to 16.54 liters (Table). There was lower milk production in Bhadra to Paush thereafter it was increased up to Chaitra and remained somehow stable (Figure 4).

Technical parameters of the cow at the farm

Data of the last FY was analyzed to get technical parameters which include age at first calving, calving interval, and success of AI rate. The data shows the average age at first calving was 36.22 ± 9.38 month, $n = 12$. Similarly, the maximum and minimum age at first calving were 49.2 and 19.07 months respectively (Table 6). The calving percentage was found about 58.82 (Table 7). The average calving interval was 21.36 ± 6.28 months, $n = 24$. Similarly the maximum and minimum calving interval were found 34.5 and 12.27 months respectively (Table 8).

The trend of calf production and survival rate at the farm

About two and a half folds (49) more calves (23 male and 26 female) compared to the FY 2073/074 BS calves (19) were born (Table 9). Some of them were kept for replacement stock especially female and remaining were auctioned. Out of 49 calves, 4 (1 male and 3 female) died. The calf mortality was 8.16 % (Table 9). The mortality rate was found higher (4.76 %) in male calves (Table 4).

Cattle outreach program

The farm has been launching outreach programs in Dolakha and Ramechhap districts. In FY 2074/075 BS, altogether, 75 cows were distributed in the outreach areas in partial grant with supporting activities; cow rearing training, distribution of forage seeds and saplings of annual as well as perennial grasses, drenching, vaccination, insurance of the cows, visit and tour of the farmers and supports in improvement of cowshed.



Figure 5 Cow in outreach program

A. Hariyali Dhaule Cattle Breeder Group, Gokulganga-1, Garjyang, Ramechhap

The group was formed on 2073/06/11 BS with 25 members including male and female members 13 and 12 respectively. In the FY 2073/074 BS partial grant was made for buying and distributing of the 25 milking Jersey cow and its crossbreds to the farmers with the supporting activities. Two cows died after a few months. In the last FY 2074/075 BS, follow-up program was conducted with some activities; distribution of forage seeds and saplings of annual and perennial grasses, drenching, and vaccination. The group had NRs 95000.00 saving fund in FY 2074/075 BS.

B. Seti Devi Cattle Breeder Group, Dhunge, Jiri-5, Dolakha

The group was formed on 2074/04/10 BS with 25 members including male and female members 10 and 15 respectively. In FY 2074/075 BS partial grant was made for buying and distribution of the 25 milking Jersey cow and its crossbreds to the farmers with the supporting activities; distribution of forage seeds and fodder saplings, drenching, vaccination etc. One cow died after a few months. The group had NRs 24000.00 saving fund in FY 2074/075 BS.

C. Mathillo Sikri Tatha Chepte Cattle Breeder Group, Sikri, Jiri-6 and 7, Dolakha

The group was formed in the FY 2074/075 BS with 25 members including male and female members 20 and 5 respectively. In FY 2074/075 BS partial grant was made for buying and distribution of 25 milking Jersey cow and its crossbreds to the farmers with the supporting activities;

distribution of forage seeds and fodder saplings, drenching, vaccination etc. The group had NRs 12500.00 saving fund in FY 2074/075 BS.

D. Jireswory Cattle Breeder Group, Kune, Jiri-4, Dolakha

The group was formed in the FY 2074/75 with 25 members including 7 male and 18 female. In FY 2074/75 partial grant was made for buying and distribution of 25 milking Jersey cow and its crossbreds to the farmers with the supporting activities; distribution of forage seeds and fodder saplings, drenching, vaccination etc. Two cows died after a few months. The group had NRs 9000.00 saving fund in FY 2074/75.

Milk production in the outreach area

The data shows the highest average monthly milk production was in Garjyang, Ramechhap followed by Sikri. The average monthly milk production of Garjyang was 187.5 ± 99.4 , $n = 15$, 202.1 ± 116.4 $n = 14$ and 233.2 ± 128.0 , $n = 13$ liter in Baisakh, Jeth, and Asar respectively. Similarly, in Sikri it was 170.4 ± 105.6 , $n = 9$, 183.4 ± 96.5 , $n = 10$ and 189.5 ± 102.1 , $n = 11$ liter in Baisakh, Jeth and Asar respectively. The lowest average monthly milk production was recorded at Dhunge which was 104.4 ± 48.9 , $n = 15$, 109.4 ± 51.4 , $n = 16$ and 127.3 ± 47.9 , $n = 15$ liters. The daily average milk production from Baisakh to Asar 2075 in Garjyang, Sikri, Kune, and Dhunge was 6.92, 6.04, 4.74 and 3.75 liters respectively (Table 11).

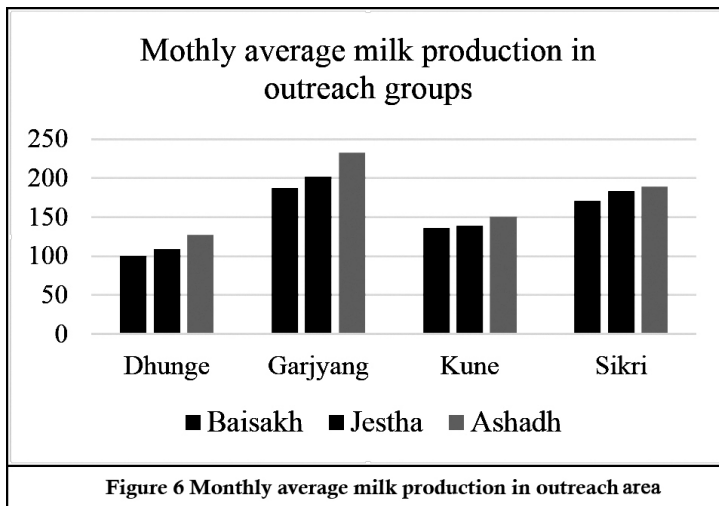


Figure 6 Monthly average milk production in outreach area

Pig Production Unit (PPU)

Another major component is PPU. It has been maintaining a pure line of Landrace (L) and Yorkshire (Y). In addition, the farm has been producing crossbreeds of LY as well as Duroc (D), L and Y. The produced piglets are being distributed to the farmers. There has been a higher demand of L and Y piglets among the farmers of Dolakha, Ramechhap, Solukhumbu, Okhaldhunga, Sindhupalchok, and Kathmandu districts.



Figure 7 Pig at the farm

Stock details of pig

In Asar 2075 BS, out of these L and Y were 4 and 2 respectively. Similarly crossbred of LY and Duroc (D), L and Y were 17 and 6 respectively (Table 13).

During the FY 2074/075 BS on average monthly about 38 pigs were reared ranging from 22 to 58. Out of these 15 were sows ranging from 12 to 16. One was boar ranging to 2. The average male piglets at the farm were recorded 9 ranging from 2 to 17. Similarly, the average female piglets were about 15 ranging from 3 to 23 on the monthly time basis. (Table 12).

Production, distribution and mortality

In FY 2074/075 BS, 152 piglets were born (Table 17). Annual average mortality rate was recorded 12.06% (Table 14) in piglets. Out of these, 20.47 and 15.23 percent mortality rate was recorded in male and female piglets respectively (Table 14). The highest (47.06%) mortality was recorded in poush. About 150 piglets were distributed to the farmers.

Technical parameters of pig

The age at first farrowing was recorded 366 ± 69.04 days, $n = 5$. The minimum and maximum age at first farrowing were recorded 273 and 440 days (Table 15) respectively. Similarly, the average farrowing intervals was 193.71 ± 32.21 days, $n = 7$. The minimum and maximum farrowing interval were 151 and 235 days (Table 16) respectively. The average litter size was recorded 8.44.

Pig outreach program

Nigale Pig Breeder Group, Jiri-8, Dolakha

The group was formed in the FY 2073/074 BS with 25 members. It had NRs 13000.00 saving fund in the last FY. Twenty seven piglets (25 female and 2 male) were distributed in FY 2074/075 BS. Full financial support was made for purchasing the piglets along with drenching vaccination and proving training. None of the distributed pigs came in heat period up to Asar 2075 BS.

Pasture and Forage Development Unit (PAFDU)

The farm contains around 39 Hac permanent pastureland for cattle grazing and forage cultivation. Pastureland constituted of Ryegrass (*Lolium perenne*), Paspalum (*Paspalum dilatatum*), Kikuyu (*Pennisetum clandestinum*), White clover (*Trifolium repens*), Dubo (*Cynolondactylon*) and other local grasses. The cultivated forages were Oat (*Avena sativa*), Maize (*Zea mays*), Setaria (*Setaria speculata*) and Napier (*Pennisetum perpureum*). During the last FY 2074/075 BS about 258 kg of forage seeds were produced (Table 18). Out of this



Figure 8 Maize production at the farm

Ryegrass (*Lolium perenne*) and Paspalum (*Paspalum dilatatum*) were 52.0 and 206 kg respectively. All of the produced forage seeds were distributed to the farmers.

All around the year cattle are left on the pasture for grazing for 7 to 8 hours a day. Cattle are being provided green grasses on the evening through cut and carry system. After cutting, the green grasses is stored for one night for wilting to remove the dews and moisture content associated with the grass. During winter the dry season, from Mangsir to Baisakh, almost for remaining six months of the year, the cattle were fed with hay mixed with silage of Oat and Maize. In addition, concentrate ration was also provided to the cattle during the day time. Special cares were given to the calves, milking and pregnant cows in all the seasons of the year.

Major annual activities and achievements

The farm had 123.5 and 379.43 lakh budget for the FY 2074/075 BS under the budget heading of capital and recurrent/running program. Under the capital program, three building were constructed; incomplete cow shed at Jiri farm, incomplete cow shed at Khimtee farm and incomplete store building at Khimtee farm. Similarly shed for hydroponic and solar fitting at Jiri Farm were completed (Table 19). Under the recurrent/running program, there were major two programs; self-sufficiency in milk and self-sufficiency in meat in the outreach area.

Three cow breeder groups were formed and mobilized with supporting activities; drenching, vaccination, treatment, distribution of forage seeds and saplings as well as cow rearing training. Altogether 75 cows were distributed to the cattle breeder groups in the partial grant under the self-sufficiency in milk program.

Similarly, pig breeder group was mobilized during the FY 074/075 BS. Altogether 27 piglets (2 male and 25 female) were distributed in full grant with supporting activities; pig rearing training, drenching, vaccination and treatment under the self-sufficiency in meat program.

During the FY 2074/075 BS, annual progress under capital and recurrent program were 90.71 and 91.94 percent against the approved target. Similarly aggregate annual weightage progress was 99.63 percent (Annex 2). Some outputs of the FY 2074/075 BS are given below;

- Altogether 258 kg of forage seeds (Ryegrass 52 and Paspalum 206) were produced and distributed to the farmers.
- About 100 and 210 mt of hay and silage were prepared.
- 49 calves and 152 piglets were produced.
- 3 cattle breeder groups were formed and 4 mobilized.
- Seventy five milking cows were distributed in partial financial support.
- Twenty seven piglets were distributed in full financial support to the pig breeder group.

The farm has tools and equipment to perform farm activities and some of them need to be repaired. (Table 20).

Revenue collection

The farm has been collecting revenue from selling milk, piglets, manure and forage seeds (Table 21 and 22). During the last FY 2074/075 BS, about 43.75 lakh revenue was collected. Milk selling had the highest share (71.42%) followed by selling piglets (13.72%). The price of liter milk ranged from NRs 46.00 to 50.00 according to the norms of Dolkha Dairy Uddhyog Limited (DDU Ltd.), Charikot, Dolakha. Similarly, the price of piglets ranged from NRs 3500.00 to 4500.00 depending on the age of the piglets (Table 24).

Human resources

During the last FY, the farm had 23 permanent status. Out of this 15 personnel had worked for the farm and remaining posts were vacant (Table 23). In addition, 6 cow and pig attendants were contracted to carry out the regular work of the farm.

Problems

- Encroachment of farmland by the neighbors as well as other organizations
- Lack of chilling vat to store the produced milk
- Lack of building and sheds
- Lack of human resources (according to approved posts).
- Lack of fencing around farm/center area (Khimtee as well as Jiri).
- No provision of incentives for the staffs working round the clock.
- Most of the physical infrastructure was destroyed by an earthquake so, it was very difficult to manage the cattle and pig in a temporary shed.
- Old drainages are not working properly

Attempts made to solve the problems

- Requested for installing chilling vat, overtime allowances, construction of new buildings to concerned authority.
- Surface and underground drainage have been repaired and attention has been paid for the regular maintenance to prevent them from future damage.
- Recruitment of a few seasonal workers to help in farm activities.
- Reconstruction of a few physical facilities(building, shed etc).

List of Tables

Table 1 Farm land area

S.N.	Description	Land (Hac)			Remarks
		Jiri	Khimtee	Total	
1	Office, shed other buildings and road	6	4	10	
2	Forest, river and streams	19	30	49	
3	Cultivated forage area	20	10	30	
4	Seasonal and permanent pasture land	39	81	120	
	Total	84	125	209	

Table 2 List of the chiefs of the farm, Jiri

SN	Name	Post	Period	Remarks
1	Mr. Jain Munsh	Joint Manager	2015-2020	
2	Mr. Prayag Dutta Tiwari	Chief Officer	2018-2024	
3	Dr. Heramba Raj Rajbhandari	General Manager	2022-2024	
4	Mr. Asta Dhoj Joshi	Chief Officer	2024-2026	
5	Mr. Iswari Raj Regmi	Chief Officer	2026-2028	
6	Mr. Shankar Bahadur Adhikari	Act. Chief Officer	2028-2030	
7	Mr. Ram Chandra Gupta	Chief Officer	2031-2031	
8	Mr. Ram Milan Upadhyay	Act. Chief Officer	2032-2038	
9	Mr. Shankar Bahadur Adhikari	Act. Chief Officer	2038-2038	
10	Mr. Shtrughan Lal Pardhan	Act. Chief Officer	2038-2041	
11	Mr. Dala Ram Pardhan	Act. Chief Officer	2041-2041	
12	Mr. Renu Bahadur K.C.	Act. Chief Officer	2041-2042	
13	Mr. Ram Milan Upadhyay	Act. Chief Officer	2042-2042	
14	Mr. Renu Bahadur K.C.	For Chief Officer	2042-2045	
15	Mr. Yogendra Raut	Act. Liv. Dev. Officer	2045-2048	
16	Mr. Nathu Prasad Chaudhary	Liv. Dev. Officer	2048-2049	
17	Mr. Prasanna Kumar Koirala	Liv. Dev. Officer	2049-2049	
18	Mr. Sudarsan Prasad Regmi	Liv. Dev. Officer	2050-2050	
19	Mr. Mani Kumar Shrestha	Liv. Dev. Officer	2051-2052	
20	Mr. Yadunath Sharma	Liv. Dev. Officer	2052-2055	
21	Mr. Sudarsan Prasad Regmi	Liv. Dev. Officer	2055-2059	
22	Mr. Gyan Bahadur Thapa	Liv. Dev. Officer	2059-2062	
23	Mr. Chhabilal Adhikari	Liv. Dev. Officer	2062-2062	
24	Dr. Dinesh Prasad Parajuli	Senior Liv. Dev. Officer	2062-2063	
25	Mr. Chhabilal Adhikari	Liv. Dev. Officer	2063-2066	
26	Dr. Narayan Prasad Sharma	Senior Liv. Dev. Officer	2066-2068	
27	Mr. Tanka Kumar Shrestha	Liv. Dev. Officer	2068-2068	

28	Mr. Purna Prasad Manandhar	Senior Liv. Dev. Officer	2068-2069	
29	Dr. Dharma Raj Giri	Liv. Dev. Officer	2069-2070	
30	Dr. Sudhir Kumar Singh	Senior Liv. Dev. Officer	2070-2072	
31	Mr. Gana Bahadur Jirel	Liv. Dev. Officer	2072- 2075	

Table 3 Stock details of cattle

SN	Month	Stock detail					Remarks
		Large		Small		Total	
		Male	Female	Male	Female		
1	Shrawan	1	97	31	7	136	It is based on record taken on first day of the month.
2	Bhadra	23	97	15	14	149	
3	Asoj	23	97	20	19	159	
4	Kartik	23	96	19	21	159	
5	Magsir	3	68	16	20	107	
6	Paush	3	68	16	20	107	
7	Magh	3	67	17	21	108	
8	Falgun	3	67	17	21	108	
9	Chaitra	3	67	19	21	110	
10	Baishakh	3	67	20	23	113	
11	Jestha	3	63	20	23	109	
12	Asar	3	63	21	26	113	
Average stock		7.8	76.4	19.3	19.7	123.2	

Table 4 Number of the dead cattle

Month	Number					Percent of dead cattle				
	Large		Small		Total	Large		Small		Total
	Male	Female	Male	Female		Male	Female	Male	Female	
Shrawan										
Bhadra										
Asoj		1		1	2		1.03		5.26	6.29
Kartik										
Magsir										
Paush		1			1		1.47			1.47
Magh										
Falgun										
Chaitra										
Baishakh		3		1	4		4.48		4.35	8.83
Jeth				1	1				4.35	4.35
Asar			1		1			4.76		4.76
		5.0	1.0	3.0	9.0		2.33	4.76	4.65	5.14

Note: Calculation was based on stock details of respective rows and columns of table 4 and Table 3.

Table 5 Milk production at the farm

Month	No. of observation (n)	Monthly average milk production (Liter)	Standard Deviation (\pm)	Milk production record of the highest yielder cow of the farm (liter)	Average daily milk production per cow	Daily milk production of the highest yielder cow at the farm (liter)
Shrawan	23	177.67	76.92	386.9	5.92	12.90
Bhadra	32	136.59	54.06	297.4	4.55	9.91
Asoj	40	131.28	46.52	230.1	4.38	7.67
Kartik	31	136.57	35.67	215.7	4.55	7.19
Mangsir	33	127.51	40.11	204.3	4.25	6.81
Paush	32	137.18	40.07	226.2	4.57	7.54
Magh	33	163.98	53.62	296.4	5.47	9.88
Falgun	33	188.58	45.27	289.7	6.29	9.66
Chaitra	33	216.15	60.66	369.7	7.21	12.32
Baisakh	40	221.11	71.44	374.2	7.37	12.47
Jeth	39	210.51	76.48	496.3	7.02	16.54
Asar	44	214.35	80.83	413.8	7.15	13.79
Average	34.42	171.79	56.81	316.73	5.73	10.56

Note: Highest milk production/yield was obtained from different cow in different month.

Table 6 Detail of age at first calving.

SN	Tag No.	Name of cow	Date of birth BS	Date of birth AD	Age at first calving (days)	Calving date BS	Calving date AD	
1	9917	Kritika	30/11/2070	2014/3/14	1170.00	13/02/2074	2017/5/27	
2	22263	Kumari (9920)	20/10/2070	2014/2/3	1162.00	28/12/2073	2017/4/10	
3	9945	Kousalya	28/10/2071	2015/2/11	1244.00	25/03/2075	2018/7/9	
4	22202	Trishna	19/12/2071	2015/4/2	1224.00	23/04/2075	2018/8/8	
5	22271	Nabina	27/10/2073	2017/2/9	572.00	19/05/2075	2018/9/4	
6	22284	Indra wati	10/02/2072	2015/5/24	1364.00	04/11/2075	2019/2/16	
7	22213	Suman	16/5/2072	2015/9/2	1036.00	20/03/2075	2018/7/4	
8	22221	Jhamak kumari	17/8/2072	2015/12/3	990.00	03/05/2075	2018/8/19	
9	9938	Indu	05/02/2071	2014/5/19	1476.00	20/02/2075	2018/6/3	
10	22220	Sanjha	14/07/2072	2015/10/31	697.00	11/06/2074	2017/9/27	
11	22206	Sakira	24/02/2072	2015/6/7	773.00	04/04/2074	2017/7/19	
12	9929	Laxmi	11/05/2070	2013/8/27	1330.00	05/01/2074	2017/4/18	
No. of observation					12			
Average					Days	1086.50	Month	36.22
Standard deviation					Days	281.39	Month	9.38
Maximum					Days	1476.00	Month	49.20
Minimum					Days	572.00	Month	19.07

Table 7 Other parameters of the cows

S.N.	Particular	Unit	Figure	Remarks
1	Calving rate of cow	Percent	58.82	
2	Success of artificial insemination rate	Percent	57	

Table 8 Detail of calving interval

SN	Tag No.	Name	Preceding parity	Preceding calving date BS	Preceding calving AD	Calving interval days	Parity	Calving date BS	Calving date AD	
1	22255	Kariya	4	06/03/2072	2015/6/21	785.00	5	30/04/2074	2017/8/14	
2	22278	Kushum kh	1	15/04/2074	2017/7/30	385.00	2	03/05/2075	2018/8/19	
3	105	Kushum	2	23/11/2073	2017/3/6	531.00	3	03/05/2075	2018/8/19	
4	1184	Chandra	3	28/04/2072	2015/8/13	612.00	4	03/01/2074	2017/4/16	
5	22258	Furki	4	20/09/2073	2017/1/4	368.00	5	23/09/2074	2018/1/7	
6	102	Tashi	1	09/10/2072	2016/1/23	622.00	2	20/06/2074	2017/10/6	
7	113	Tetari	1	22/09/2072	2016/1/6	603.00	2	15/05/2074	2017/8/31	
8	22273	Tara	7	04/11/2073	2017/2/15	392.00	8	30/11/2074	2018/3/14	
9	2647	Tulasha	4	11/02/2072	2015/5/25	829.00	5	15/05/2074	2017/8/31	
10	22274	Mandakini	3	19/12/2072	2016/4/1	595.00	4	01/08/2074	2017/11/17	
11	235	Bimali	1	25/09/2072	2016/1/9	589.00	2	04/05/2074	2017/8/20	
12	9905	Menuka	1	21/02/2073	2016/6/3	657.00	2	08/12/2074	2018/3/22	
13	22644	Maya	1	10/02/2073	2016/5/23	640.00	2	10/11/2074	2018/2/22	
14	2647	Puranokalyani	5	03/11/2072	2016/2/15	580.00	6	01/06/2074	2017/9/17	
15	9850	Nirmaya	1	14/03/2072	2015/6/29	1035.00	2	16/01/2075	2018/4/29	
16	9834	Samjhana	4	08/04/2074	2017/7/23	392.00	5	03/05/2075	2018/8/19	
17	2648	Jhul maya	5	17/08/2072	2015/12/3	914.00	6	21/02/2075	2018/6/4	
18	108	Usha	1	26/09/2072	2016/1/10	799.00	2	05/12/2074	2018/3/19	
19	22217	Sakuntala	6	12/06/2072	2015/9/29	581.00	7	19/01/2074	2017/5/2	
20	238	Sarita kha	1	22/10/2072	2016/2/5	843.00	2	14/02/2075	2018/5/28	
21	9817	Sarita	2	01/10/2072	2016/1/15	565.00	3	18/04/2074	2017/8/2	
22	104	Lila kumari	1	30/03/2072	2015/7/15	769.00	2	06/05/2074	2017/8/22	
23	2640	Lalita	4	07/11/2071	2015/2/19	922.00	5	13/5/2074	2017/8/29	
24	22637	Bindesori	3	15/07/2073	2016/10/31	371.00	4	20/07/2074	2017/11/6	
No. of observation (n)						24.00				
Average						640.79	21.23 (Month)			
Standard deviation						188.45	6.28 (Month)			
Maximum						1035.00	34.50 (Month)			
Minimum						368.00	12.27 (Month)			

Table 9 Detail of calf production and survival rate at farm

S.N.	FY	(calf production no.)			No. of dead calves (No.)	Mortality (%)	Remarks
		Male	Female	Total			
1	2061/062	9	4	13	2	15.2	
2	2062/063	6	5	11	1	9	
3	2063/064	16	12	28	3	10.7	
4	2064/065	10	12	22	1	4.5	
5	2065/066	14	16	30	3	10	
6	2066/067	14	8	22	0	0	
7	2067/068	25	7	32	0	0	
8	2068/069	21	20	41	5	12.2	
9	2069/070	8	11	19	2	10.5	
10	2070/071	16	16	32	2	6.25	
11	2071/072	8	15	23	2	8.7	
12	2072/073	21	24	45	7	15.55	
13	2073/074	10	9	19	2	10.5	
14	2074/075	23	26	49	4	8.16	

Table 10 Detail of production and distribution of calves, and bull.

SN	Descriptions	Unit	FY								
			66/67	67/68	68/69	69/70	70/71	71/72	72/73	73/74	74/75
1	Calves production	No.	22	32	41	19	32	23	45	20	49
2	Bull distributions	No.	4	24	11	5	15	7	4	1	1

Table 11 Milk production in the outreach area.

S N	Month	Outreach area (milk production in liter)				Remarks
		Dhunge	Garjyang	Kune	Sikri	
1	Baisakh	104.4 ± 48.9 (15)	187.5 ± 99.4 (15)	136.4 ± 76.9 (17)	170.4 ± 105.6 (9)	Average monthly milk production per cow
2	Jestha	109.4 ± 51.4 (16)	202.1 ± 116.4 (14)	139.2 ± 75.9 (18)	183.4 ± 96.5 (10)	
3	Asar	127.3 ± 47.9 (15)	233.2 ± 128.0 (13)	150.6 ± 80.3 (17)	189.5 ± 102.1 (11)	
4	Baisakh	210.0	434.0	330.0	300.0	Maximum milk production by individual cow
5	Jestha	210.0	434.0	325.0	300.0	
6	Asar	200.0	448.0	335.0	350.0	
7	Baisakh	3.35	6.25	4.55	5.68	Average daily milk production per cow
8	Jestha	3.65	6.74	4.64	6.11	
9	Asar	4.24	7.77	5.02	6.32	
Average daily		3.75	6.92	4.74	6.04	

Note: Figures in parentheses are n.

Table 12 Stock details of pig

SN	Month	Stock (No.)				Total	Remarks
		Large		Small			
		Male	Female	Male	Female		
1	Shrawan	1	16	14	23	54	It is based on record taken on first day of the month.
2	Bhadra	1	16	2	3	22	
3	Asoj	1	16	5		22	
4	Kartik	1	16	16	13	46	
5	Magsir	1	16	12	13	42	
6	Paush	1	16	17	24	58	
7	Magh	2	16	11	19	48	
8	Falgun	1	14	7	14	36	
9	Chaitra	1	14	4	11	30	
10	Baishakh	1	14		7	22	
11	Jeth	1	12	7	20	40	
12	Asar	1	12	8	14	35	
Average		1.1	14.8	9.4	14.6	37.9	

Table 13 Breedwise herd composition of pig

SN	Particular	Breed wise stock detail (No.)					Remarks
		Landrace (L)	Yorkshire (Y)	LY	DLY	Total	
1	Sow	2	1	7	6	16	
2	Gilt	1	1	5		7	
3	Boar	1				1	
4	Piglet			5		5	
	Total	4	2	17	6	29	

Table 14 Number of the dead pigs

SN	Month	Number				Total	Percent of dead			Remarks
		Large		Small			Small (piglets)			
		Male	Female	Male	Female		Male	Female	Total	
1	Shrawan			1		1	7.14		2.7	
2	Bhadra									
3	Asoj									
4	Kartik									
5	Magsir			2		2	16.67		8.0	
6	Paush			8	5	13	47.06	20.83	31.71	
7	Magh			1	3	4	9.09	15.79	13.33	
8	Falgun			1		1	14.29		4.76	
9	Chaitra									
10	Baishakh									
11	Jeth			2	2	4	28.57	10.00	14.81	
12	Asar				2	2		14.29	9.09	
Total				15.0	12.0	27.0	20.47*	15.23*	12.06*	* Average

Note: Calculation was based on stock details of respective rows and columns of table 14 and Table 12.

Table 15 Detail of age at first farrowing

SN	Tag No.	Date of birth BS	Date of birth AD	Age at first farrowing (days)	Farrowing date BS	Calving date AD	Remarks
1	890	25/08/2073	2016/12/10	273.00	25/05/2074	2017/9/10	
2	893	28/08/2073	2016/12/13	343.00	06/08/2074	2017/11/22	
3	894	28/08/2073	2016/12/13	345.00	08/08/2074	2017/11/24	
4	892	28/08/2073	2016/12/13	440.00	11/11/2074	2018/2/23	
5	883	14/05/2073	2016/8/30	429.00	17/07/2074	2017/11/3	
Average (days)				366.00		12.20 (Month)	
Standard deviation (days)				69.04		2.30 (Month)	
Minimum (days)				273.00		9.10 (Month)	
Maximum (days)				440.00		14.67 (Month)	

Table 16 Record of farrowing interval

SN	Tag No.	Previous farrowing date BS	Previous farrowing date AD	Farrowing interval (days)	Farrowing date BS	Farrowing date AD	Remarks
1	886	08/09/2074	2017/12/23	183.00	10/03/2075	2018/6/24	
2	177	22/06/2074	2017/10/8	217.00	25/01/2075	2018/5/8	
3	893	06/08/2074	2017/11/22	151.00	04/01/2075	2018/4/17	
4	425	26/06/2074	2017/10/12	235.00	16/02/2075	2018/5/30	
5	460	23/06/2074	2017/10/9	223.00	01/02/2075	2018/5/15	
6	884	28/03/2074	2017/7/12	187.00	01/10/2074	2018/1/15	
7	427	09/03/2074	2017/6/23	160.00	16/08/2074	2017/12/2	
Average			Days	193.71	Month	6.46	
Standard deviation			Days	32.21	Month	1.07	
Maximum			Days	235.00	Month	7.83	
Minimum			Days	151.00	Month	5.03	

Table 17 Detail of production and distribution of piglets

S.N.	Descriptions	Unit	FY								
			66/67	67/68	68/69	69/70	70/71	71/72	72/73	73/74	74/75
1	Production	No.	237	342	206	191	210	210	161	154	152
2	Distribution	No.	234	294	205	101	190	168	180	81	200

Table 18 Detail of forage seed production and distribution

S. N.	Descriptions	Unit	FY								
			66/67	67/68	68/69	69/70	70/71	71/72	72/73	73/74	74/75
1	Forage seed production	kg	213	348	288	252	270	280	300	305	258
2	Forage seed distribution	kg	213	348	288	252	270	280	300	220	258

Table 19 Major activities and achievements

Activities	Unit	Target			Achievement	Remarks
		Quantity	Weightage	Budget NRs(Lakh)	Quantity	
1. Capital budgets/program						
Construction of incomplete cow shed at Jiri Farm	No	1	8.35	42	1	
Construction of incomplete cow shed at Khimtee Farm	No.	1	8.35	42	1	
Construction of incomplete store building at Khimtee	No.	1	5.96	30	1	
Construction of shed for hydroponics	No.	1	0.6	3	1	
Solar fitting at Jiri farm	No.	1	0.2	1	1	
Furniture purchase	Freq.	1	0.6	3	1	
2. Recurrent budget/program						
Documentary of farm	Freq.	1	0.6	3	1	
2-week applied practical and residential training for pig and cattle farmers	Freq.	2	1.19	6	2	
Program of self-sufficiency in milk						
Outreach resource development program of cattle						
Group formation & mobilization	Freq.	3	17.89	90	3	
Follow-up program of breeder group	No.	1	0.99	5	1	
Drenching, vaccination and treatment	Freq.	2	0.34	1.7	2	
Purchase of seeds and other materials for hydroponic operation and forage production	Freq.	4	1.59	8	4	
Purchase of scythe and other equipment	Freq.	1	2.58	13	1	
AI	No.	300	0.3	1.5	180	
Seed collection of Ryegrass	kg	100	0.24	1.2	52	
Seed collection of Paspalam grass	kg	200	0.2	1	206	
Canal repair at Jiri farm	Freq.	1	0.5	2.5	1	
Plantation of fodder at Jiri farm	Hac.	1	0.74	3.73	1	
Removing shrubs and other unwanted plants from pasture land	Freq.	3	0.6	3	3	
Management of cattle & buffalo bull at Khimtee farm	No.	2	0.6	3	2	
Publication of annual report	No.	100	0.1	0.5	100	
Publication of brochure, leaflet for production at low cost of pig and cow	No.	500	0.2	2	500	

Activities	Unit	Target			Achievement	Remarks
		Quantity	Weightage	Budget NRs(Lakh)	Quantity	
Website update of farm	Freq.	1	0.1	0.5	1	
Cattle rearing and management training (3 days)	Freq.	2	0.4	2	2	
Farm observation and visit to cow breeder group	No.	1	0.45	2.55	1	
Farm day celebration	Freq.	1	0.1	0.5	1	
Milk day celebration	Freq.	1	0.1	0.5	1	
Interaction with Farm Sudhar Samitee and farmers	Freq.	1	0.1	0.5	1	
Jersey nucleus herd rearing and management	No.	124	12.12	65	124	
Production of calf	No.	25	0.45	2.25	49	
Management of bull & calf	No.	50	0.99	5	50	
Replacement of heifer	No.	50	0.99	5	50	
Production of green grass (Oat: 5 hac and & Maize 5 hac) and others	Hac.	10	0.8	4	10	
Hay making	mt.	100	0.55	2.75	100	
Silage making	mt.	100	0.3	1.5	100	
Production of green grass (Hay) at Khimtee farm	Hac.	5	0.5	2.5	5	
Program of self-sufficiency in meat						
Out-reach resource development program of pig						
Group formation and mobilization	No.	1	0.8	4	1	
Follow-up program of pig breeder group in Eastern Region (Purwanchal)	Freq.	3	0.21	1.05	3	
Drenching, vaccination and treatment	Freq.	2	0.3	1.5	2	
Pig keeping and management training (3 days)	Freq.	1	0.2	1	1	
Farm observation visit of pig breeder group	Freq.	1	0.4	2	1	
Sows rearing	No.	20	2.19	11	20	
Production of piglets	No.	230	0.1	0.5	152	
Distribution of piglets ³	No.	200	0.08	0.4	200	
Purchase of pig for replacement	No.	6	0.12	0.6	2	
Silage making	mt.	100	0.3	1.5	100	

3 Some of them were born in FY 2073/074 BS.

Table 20 Major tools, equipment and their status.

S.N.	Particular	Unit	Quantity	Condition	Remarks
1	Motorcycle	No.	3	1 Repairable 2 good	
2	Tata sumo motor	No.	1	Repairable	
3	Guest room	No.	1	Good	
4	Staff canteen	No.	1	Repairable	
5	Motor garage	No.	1	Repairable	
6	Silo pit	No.	3	1 Good 2 Repairable	
7	Chaff cutter machine	No.	2	Good	
8	Computer set	No.	7	Good	
9	Power sprayer	No.	1	Good	
10	Metal detector	No.	1	Good	
11	Tractor	No.	2	Good	
12	Generator	No.	2	Good	
13	Milking machine	Set	2	Good	
14	Centrifuge machine	No.	1	Good	
15	Fax machine	No.	1	Good	
16	Photocopy machine	No.	3	Good	
17	STM phone line	No.	1	Good	
18	Canon Camera	No.	2	Good	
19	Laptop	No.	4	Good	
20	Refrigerator	No.	2	Good	
21	Lacto scan (milk analyzer)	No.	1	Good	
22	Liquid Nitrogen container	No.	2	Good	
23	Multimedia projector	No.	1	Good	
24	Binocular microscope	No.	2	Good	
25	Field water pump set	No.	1	Good	
26	Digital beam balance	No.	1	Good	
27	Solar water heater	No.	3	Good	
28	Solar light	Set	2	Good	
29	Hydroponic Machine	Set	1	Good	
30	Four wheel pick up	No.	1	Good	
31	Cow shed with hay store	No.	1	Good	
32	Staff quarter	No.	2	Good	
33	Cow Shed	No.	2	Good	
34	Hay Store	No.	1	Good	
35	Watchmen quarter	No.	1	Good	

Table 21 Detail of the revenue collection

S.N.	Particular	Unit	FY								
			66/67	67/68	68/69	69/70	70/71	71/72	72/73	73/74	74/75
1	Revenue	NRs '000	13.88	24.92	27.63	29.33	31.67	35.95	42.66	32.15	43.75

Table 22 Share of the revenue collection

SN	Particular	Unit	Amount	Percent	Remarks
1	Milk	NRs	3124298	71.42	
2	Piglets	NRs	600040	13.72	
3	AI	NRs	2750	0.06	
4	Called pig	NRs	65000	1.49	
5	Male calf selling	NRs	23500	0.54	
6	Manure of cattle	NRs	141500	3.23	
7	Manure of pig	NRs	3000	0.07	
8	Forage seeds	NRs	87800	2.01	
9	Selling of bags	NRs	10320	0.24	
10	Cow auction	NRs	214300	4.90	
11	Selling of tender	NRs	102000	2.33	
	Total	NRs	4374508	100.00	

Table 23 Status of the human resources

S.N.	Post	Class	No. of Seat		
			Approved	Fulfilled	Vacant
1	Senior Livestock Development Officer	G II	1	-	1
2	Livestock Development Officer	G III	1	1	-
3	Livestock Technician	N GI	3	3	-
4	Assistant Livestock Technician	N GII	6	5	1
5	Kharidar (Clerk)	N GII	1	1	-
6	Sub-accountant	N GII	1	-	1
7	Driver	N GII	1	-	1
8	Office Assistant		9	4	5
	Total		23	14	9

Table 24 Price list of the farm's products

SN	Particular	Unit	Nrs	Remarks
1	Cow milk	Liter	46 to 50	Fat basis according to DDU Ltd's norms
2	Cattle manure	Trailer	4500	
3	Pig manure	Sac(50 kg)	250	
4	Piglets (30-45 days)	No.	3500	
5	Piglets (46-60 days)	No.	4000	
6	Piglets (61-90 days)	No.	4500	
7	Called pig	kg	130	Live weight
8	Seed of Rye grass	kg	350	
9	Seed of Paspalum grass	kg	300	
10	Artificial Insemination in cow and buffalo	Time	25	
11	Sac	No.	10	

ANNEX

Annex 1: Annual program

बजेट फारम नं. १.१.१.
राज्य.आ.प्र.स.नं. १
पान नं. १/२

वार्षिक विकास कार्यक्रम बजेट तर्जुमासंग सम्बन्धित आर्थिक प्रशासन नियम २०(१) बमोजिमको फारम

पुस्तको संकेतिक

१० आर्थिक बजेट (रु): १०२.१४
क) आन्तरिक : १) नेपाल सरकार १०२.१४
२) स्थानीय निकाय / संस्था : ०
३) वार्षिकमागिना : ०

११ आर्थिक बजेट (रु): १०२.१४
क) आन्तरिक : १) नेपाल सरकार १०२.१४
२) स्थानीय निकाय / संस्था : ०
३) वार्षिकमागिना : ०

कार्यक्रम / आयोजनाको नाम पारदर्शक विकास कार्यक्रम (वि.क.)

(क) वैश्विक : अन्तरगत

स्तर (क) वि.क. : देशगत

आयोजना पुरा भएको स्थिति : वि.क.

आयोजना पुरा हुने स्थिति : वि.क.

आयोजना/ आयोजनाको नाम :

१२) यह आ. व. सम्झौता बमोजिम (रु) (वि.क.)

१) नेपाल सरकार :

२) स्थानीय निकाय / संस्था :

(क) वैश्विक : १) रु. ०

(ख) क्षेत्रीय : १) रु. ०

र. लागत

क्र. सं.	कार्यक्रम / आयोजना	कार्यक्रम	प्रकार	आयोजनाको कुल विवरणहरूको		सम्पूर्ण बजेट गरी यह आ. व. सम्झौता		वार्षिक बजेट		वर्षमा बजेट		रेगुलर बजेट		रेगुलर बजेट	
				भार	सावकाश	भार	सावकाश	भार	सावकाश	भार	सावकाश	भार	सावकाश	भार	सावकाश
१	१	य	५	५	५	५	५	५	५	५	५	५	५	५	५
२	२	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३	३	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४	४	य	५	५	५	५	५	५	५	५	५	५	५	५	५
५	५	य	५	५	५	५	५	५	५	५	५	५	५	५	५
६	६	य	५	५	५	५	५	५	५	५	५	५	५	५	५
७	७	य	५	५	५	५	५	५	५	५	५	५	५	५	५
८	८	य	५	५	५	५	५	५	५	५	५	५	५	५	५
९	९	य	५	५	५	५	५	५	५	५	५	५	५	५	५
१०	१०	य	५	५	५	५	५	५	५	५	५	५	५	५	५
११	११	य	५	५	५	५	५	५	५	५	५	५	५	५	५
१२	१२	य	५	५	५	५	५	५	५	५	५	५	५	५	५
१३	१३	य	५	५	५	५	५	५	५	५	५	५	५	५	५
१४	१४	य	५	५	५	५	५	५	५	५	५	५	५	५	५
१५	१५	य	५	५	५	५	५	५	५	५	५	५	५	५	५
१६	१६	य	५	५	५	५	५	५	५	५	५	५	५	५	५
१७	१७	य	५	५	५	५	५	५	५	५	५	५	५	५	५
१८	१८	य	५	५	५	५	५	५	५	५	५	५	५	५	५
१९	१९	य	५	५	५	५	५	५	५	५	५	५	५	५	५
२०	२०	य	५	५	५	५	५	५	५	५	५	५	५	५	५
२१	२१	य	५	५	५	५	५	५	५	५	५	५	५	५	५
२२	२२	य	५	५	५	५	५	५	५	५	५	५	५	५	५
२३	२३	य	५	५	५	५	५	५	५	५	५	५	५	५	५
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२५	२५	य	५	५	५	५	५	५	५	५	५	५	५	५	५
२६	२६	य	५	५	५	५	५	५	५	५	५	५	५	५	५
२७	२७	य	५	५	५	५	५	५	५	५	५	५	५	५	५
२८	२८	य	५	५	५	५	५	५	५	५	५	५	५	५	५
२९	२९	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३०	३०	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३१	३१	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३२	३२	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३३	३३	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३४	३४	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३५	३५	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३६	३६	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३७	३७	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३८	३८	य	५	५	५	५	५	५	५	५	५	५	५	५	५
३९	३९	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४०	४०	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४१	४१	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४२	४२	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४३	४३	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४४	४४	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४५	४५	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४६	४६	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४७	४७	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४८	४८	य	५	५	५	५	५	५	५	५	५	५	५	५	५
४९	४९	य	५	५	५	५	५	५	५	५	५	५	५	५	५
५०	५०	य	५	५	५	५	५	५	५	५	५	५	५	५	५

दिनांक २०७४-०४-०२

पान नं १ / ४

बजेट प्रारण नं. ६.५.१
राज्य योजना नं. १
पृष्ठ नं. १/१

वार्षिक विकास कार्यक्रम
बजेट तर्जुमासंग सम्बन्धित वार्षिक प्रशासन नियम २०(१) बमोजिमको फारम

क्र. सं.	कार्यक्रम/विस्तार	वर्ष	मार्च		मार्च		मार्च		मार्च		मार्च		मार्च		मार्च		मार्च	
			परिमाण	भार	परिमाण	भार	परिमाण	भार	परिमाण	भार	परिमाण	भार	परिमाण	भार	परिमाण	भार	परिमाण	भार
१	२		५	८	५	८	५	८	५	८	५	८	५	८	५	८	५	८
२.१.२.१	सिङ्गो मसुदा(विद्युती मसुदा)		०	०	२१०३	०.६५	३.२८	०.२३	१.१७	०.२३	१.१७	१.१७	०.२३	१.१७	१.१७	०.२३	१.१७	०.२३
२.१.२.१	Hydrpac संश्लेषणको लागि सिङ्गो मसुदा(विद्युती मसुदा)		०	०	१२८०	०.१	०.४८	०.१३	०.४८	०.१३	०.४८	४२८	०.१३	४२८	०.१३	४२८	०.१३	४२८
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	०	०	०	०	०	०	०	०	०	०	०	०	०	०
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१	०.११	०.४४	०.०५	०.१६	०.०५	०.१६	४०५	०.०५	४०५	०.०५	४०५	०.०५	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१	०.१२	०.६	०.०५	०.२३	०.०५	०.२३	४०५	०.०५	४०५	०.०५	४०५	०.०५	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१२००	०.२५	१.२५	०.०८	०.४०	०.०८	०.४०	४०५	०.०८	४०५	०.०८	४०५	०.०८	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	२४००	०.३८	१.५२	०.१३	०.६४	०.१३	०.६४	५००	०.१३	५००	०.१३	५००	०.१३	५००
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१	०.१८	०.६	०.०६	०.२३	०.०६	०.२३	४०५	०.०६	४०५	०.०६	४०५	०.०६	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	२	०.१२	०.६	०.०५	०.२३	०.०५	०.२३	४०५	०.०५	४०५	०.०५	४०५	०.०५	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१०	०.४	३.०८	०.२	०.७	०.२	०.७	४०५	०.२	४०५	०.२	४०५	०.२	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	२	०.१	०.४	०.०२	०.१६	०.०२	०.१६	४०५	०.०२	४०५	०.०२	४०५	०.०२	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१	०.१५	०.५	०.०५	०.१६	०.०५	०.१६	४०५	०.०५	४०५	०.०५	४०५	०.०५	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१०	०.२५	१.२	०.०५	०.१६	०.०५	०.१६	४०५	०.०५	४०५	०.०५	४०५	०.०५	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१०	०.०५	०.३६	०.०२	०.१२	०.०२	०.१२	४०५	०.०२	४०५	०.०२	४०५	०.०२	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१२	०.०३	०.५६	०.०१	०.०६	०.०१	०.०६	४०५	०.०१	४०५	०.०१	४०५	०.०१	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१२	०.०३	०.५६	०.०१	०.०६	०.०१	०.०६	४०५	०.०१	४०५	०.०१	४०५	०.०१	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१२	०.०३	०.५६	०.०१	०.०६	०.०१	०.०६	४०५	०.०१	४०५	०.०१	४०५	०.०१	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	२०००	०.२८	१.५	०.१६	०.६६	०.१६	०.६६	४०५	०.१६	४०५	०.१६	४०५	०.१६	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	५	०.३	१.५	०.१	०.५	०.१	०.५	४०५	०.१	४०५	०.१	४०५	०.१	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१२	०.५	१.६७	०.१३	०.६६	०.१३	०.६६	४०५	०.१३	४०५	०.१३	४०५	०.१३	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	६	०.१२	०.५	०.०५	०.२३	०.०५	०.२३	४०५	०.०५	४०५	०.०५	४०५	०.०५	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१	०.५५	२.०५	०.१५	०.६६	०.१५	०.६६	४०५	०.१५	४०५	०.१५	४०५	०.१५	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	२	०.१२	०.६	०.१२	०.६	०.१२	०.६	४०५	०.१२	४०५	०.१२	४०५	०.१२	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१	०.६	३	१	०.६	३	१	४०५	१	४०५	३	१	४०५	३
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	२	१.१८	६	०	०	०	०	४०५	०	४०५	०	४०५	०	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१७	०.२६	१.३५	०	०.१६	०.२६	१.३५	४०५	०.१६	४०५	०.१६	४०५	०.१६	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१२	०.११	०.६६	०.०६	०.३३	०.०६	०.३३	४०५	०.०६	४०५	०.०६	४०५	०.०६	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	३	१०.८९	५०	३	१०.८९	५०	३	४०५	३	४०५	३	४०५	३	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	१	०.९८	५	१	०.५	१	०.५	४०५	१	४०५	१	४०५	१	४०५
२.१.२.५	डेटाकोर(डेटाकोर मसुदा)		०	०	२	०.३५	१.७	१	०.१६	१	०.१६	४०५	१	४०५	१	४०५	१	४०५

नेपाल सरकार
पशुपन्छी विकास मन्त्रालय

चालु खर्च अनुमानको सारांश

आर्थिक वर्ष : २०७४/७५

जिल्ला : दोलखा

मन्त्रालय: पशुपन्छी विकास मन्त्रालय

कार्यालय कोड :

बजेट उपशीर्षक : ३२७१०७ पशुपन्छी विकास फार्महरू

अन्तर्गत कार्यालय संख्या:

सब उपशीर्षक : ३२७१०७-८ पशु विकास फार्म जिरी, दोलखा

लैंगिक संकेत : तटस्थ

गरिबी न्यूनिकरण : गरिबी न्यूनिकरण बजेट

(रु.हजारमा)

खर्च शीर्षक	पहिलो वर्ष				दोस्रो वर्ष	तेस्रो वर्ष	चालु आ वर्षको	
	नेपाल सरकार	वैदेशिक अनुदान	वैदेशिक ऋण	जम्मा	जम्मा	जम्मा	विनियोजन	६ महिनाको खर्च
२११११ तलब	६४४५	०	०	६४४५	६६३०	७१००	४५८९.१५	२,३१८
२१११२ स्थानीय भत्ता	२४०	०	०	२४०	२७५	३००	२०६	१०३
२१११३ महंगी भत्ता	२१६	०	०	२१६	२५०	४५०	२०४	१०४
२१११९ अन्य भत्ता	६०	०	०	६०	७०	८०	४०	२०
२११२१ पोशाक	१३५	०	०	१३५	१५०	१५०	१२८	
२२१११ पानी तथा बिजुली	५४०	०	०	५४०	६७५	६७५	३००	१५१
२२११२ संचार महसुल	११४	०	०	११४	१२०	१३०	१००	५०
२२२११ इन्धन	३१३	०	०	३१३	३२५	३३०	२०३	१०२
२२२१२ संचालन तथा मर्मत संचार	६९८	०	०	६९८	७८५	८०५	५००	२५५
२२२१३ बिमा	१९०	०	०	१९०	२१०	२२०	२००	
२२३११ कार्यालय सम्बन्धी खर्च	२२५	०	०	२२५	२४०	२८०	२००	१२०
२२३१४ इन्धन - अन्य प्रयोजन	१४०	०	०	१४०	१५०	१५०	१२०	६०
२२४११ सेवा र परामर्श खर्च	३४९	०	०	३४९	३००	४००	५०	२५
२२४१२ अन्य सेवा शुल्क	११०४	०	०	११०४	१११०	११२५	९६०	४९०
२२५१२ सीप विकास तथा जनचेतना तालिम तथा गोष्ठी सम्बन्धी खर्चहरू	६०	०	०	६०	६०	६०	५३	५३
२२५२१ उत्पादन सामग्री / सेवा	१०२००	०	०	१०२००	१०४२०	११०७०	९०००	४,८३१
२२५२२ कार्यक्रम खर्च	१६०६३	०	०	१६०६३	१२७८०	१३०२५	६२१८	३,०११
२२६११ अनुगमन,मूल्यांकन खर्च	२४४	०	०	२४४	२८५	२८५	२१०	१३०
२२६१२ भ्रमण खर्च	५११	०	०	५११	५८५	७२५	३७६	२६०
२२७११ विविध खर्च	९६	०	०	९६	१००	१००	५०	२५

प्रतिवेदन नं ०१ प्रयोगकर्ता : Parbat Paudel

मिति : २०७४-०५-०२

पाना नं .१ / ३

पूँजीगत खर्च अनुमानको सारांश

आर्थिक वर्ष : २०७४/७५

जिल्ला : दोलखा

मन्त्रालय: पशुपन्छी विकास मन्त्रालय

कार्यालय कोड :

बजेट उपशीर्षक : ३२७१०७ पशुपन्छी विकास फार्महरू

अन्तर्गत कार्यालय संख्या:

सब उपशीर्षक : ३२७१०७-८ पशु विकास फार्म जिरी, दोलखा

गरिबी न्यूनिकरण : गरिबी न्यूनिकरण बजेट

लैंगिक संकेत : तटस्थ

(रु.हजारमा)

खर्च शीर्षक	पहिलो वर्ष				दोस्रो वर्ष	तेस्रो वर्ष	चालु आ वर्षको	
	नेपाल सरकार	वैदेशिक अनुदान	वैदेशिक ऋण	जम्मा	जम्मा	जम्मा	विनियोजन	६ महिनाको खर्च
२९२२१ भवन निर्माण	११७००	०	०	११७००	०	०	०	
२९२३१ पूँजीगत सुधार खर्च - भवन	१००	०	०	१००	०	०	०	
२९३११ फर्निचर तथा फिक्चर्स	३००	०	०	३००	५००	५००	०	
२९५११ मेशिनरी औजार	२५१	०	०	२५१	३००	३००	०	
जम्मा	१२३५१	०	०	१२३५१	८००	८००	०	०
कुल जम्मा :	५०२९४	०	०	५०२९४	३६३२०	३८०६०	२३७०७.१५	१२१०८.०७

प्रतिवेदन नं ०१ प्रयोगकर्ता : Parbati Faudel

मिति : २०७४-०५-०२

पाना नं .३ / ३

Annex 2: Progress report.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1														
2														
3	श.क्र. : २०७४/७५													
4	बजेट उपशिर्षक नं. : ३२५१०३-३/४													
5	मन्त्रालय : पशुपन्छी विकास													
6	विभाग : पशु सेवा													
7	आयोजनाको नाम : पशु विकास फार्म													
8	स्थान : जिरी, दोलखा													
9	आयोजना पूरा हुने मिति : सातदमाली													
10	आयोजना शुरू भएको मिति : २०७४													
11	कार्य प्रमुखको नाम :													
12														
13	आयोजनाको प्रमुख कार्यहरु													
14														
15														
16	पूजीगत खर्च अन्तर्गतका कार्यक्रमहरु													
17	अधुनो भवन गाई सङ्ग्रहस्थल जिरी													
18	अधुनो भवन गाई सङ्ग्रहस्थल खिम्ती													
19	अधुनो स्टोर भवन तिम्बाङ खिम्ती													
20	हाइड्रोफोनिकको लागि सडु तिमाङ													
21	जिरी फार्ममा मोलर जडान													
22	कार्यालय प्रयोजनको लागि फर्निचर खरिद													
23	कम्प्युटर ल्यापटप खरिद													
24	पूजीगत खर्च कार्यक्रमको जम्मा													
25	चालु खर्च अन्तर्गतका कार्यक्रमहरु													
26	कम्प्युटर तालिम प्राप्तिका लागि													
27	फार्मको डकुमेन्ट्री तयारी													
28	बजार तथा गाई पालक किसानको तालिम													
29	दुधमा आत्मनिर्भर कार्यक्रम													
30	ब्रिडर समूह गठन र सञ्चालन													
31	ब्रिडर समूह सञ्चालन र सुलाक्षण													
32	डेनचिंग स्थापना र सुलाक्षण													



बाषिक बजेट (रु. लाखमा) : ५०२.९४
 क आन्तरिक नेपाल सरकार (रु. लाखमा) : ५०२.९४
 ख वैदेशिक ऋण : रु.
 ग दान सस्था :
 नेत्रो चौमामिक बजेट : ८७.४२
 यस अर्कोप्र सम्मको निकामा रु.
 यस अर्कोप्र सम्मको खर्च रु. :

मिति : २०७५/०५/०९

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क्र.सं.	A	B	C	D		E		F	G		H		I	J	K	L	M	N	O
				परिमाण	भा.प्र.	शॉपिक कार्य लक्ष्य	शॉपिक बजेट		परिमाण	भा.प्र.	कार्य लक्ष्य	प्रमाण							
12																			
13																			
14																			
15	१	२	३	४	५	६	७	८	९	१०	११	१२	१३	१४	१५	१६	१७	१८	१९
33	१.०	हाइड्रोपोनिक संचालन बीउ मल खोद	पटक	४	१.५९	५	१	५	५	१	१	१	१	१	४	१	१	१	१
34	२.०	हे घास बनाउने तथा सफा गर्न माथ्य कटा खरिद	पटक	१	२.५८	१	१	१	१	१	१	१	१	१	१	१	१	१	१
35	३.०	कृषि मगाथान सेवा	संख्या	३००	०.३०	३००	१००	१५	१००	५०	५०	५०	५०	५०	५०	५०	५०	५०	५०
36	४.०	गाईजायको बीउ उत्पादन	के.जी	१००	०.२४	१००	१००	१.२	१००	५२	५२	५२	५२	५२	५२	५२	५२	५२	५२
37	४.०	पाम्पामस घासको बीउ उत्पादन	के.जी	२००	०.२०	२००	२००	१	२००	२०६	२०६	२०६	२०६	२०६	२०६	२०६	२०६	२०६	२०६
38	५.०	चरन अत्र डेनज सुधार	पटक	१	०.५०	१	१	२.५	१	१	१	१	१	१	१	१	१	१	१
39	६.०	डानश्राय विम्वार	हेक्टर	१	०.७४	१	१	३.७३	१	१	१	१	१	१	१	१	१	१	१
40	७.०	चरन अत्रमा अनावश्यक फाडी बट्यान हटाउने	पटक	३	०.६०	३	१	३	१	१	१	१	१	१	३	३	३	३	३
41	८.०	खिमि गाई प्रजनन केन्द्रमा रागी,माहि पालन	संख्या	२	०.६०	२	२	३	२	२	२	२	२	२	२	२	२	२	२
42	९.०	शॉपिक पुस्तिका प्रकाशन	संख्या	१००	०.१०	१००	१००	०.५	१००	०.२०	०.२०	०.२०	०.२०	०.२०	१००	१००	१००	१००	१००
43	१०.०	न्युनतम लागतमा गाई तथा बगरपालन निफलिट	संख्या	५००	०.२०	५००	५००	१	५००	०.२०	०.२०	०.२०	०.२०	५००	५००	५००	५००	५००	५००
44	११.०	फामको बिकासबाट अपडेट गर्ने	पटक	१	०.१०	१	१	०.५	१	१	१	१	१	१	१	१	१	१	१
45	१२.०	रेकर्डिग अनुगमन	पटक	२	०.१०	२	१	०.५	१	१	१	१	१	१	१	१	१	१	१
46	१३.०	गाईपालन व्यवस्थापन तालिम ३ दिने	पटक	२	०.४०	२	१	२	१	१	१	१	१	१	२	२	२	२	२
47	१४.०	गाई ब्रिडर समूहको फार्म अवलोकन	पटक	१	०.४५	१	१	२.२५	१	१	१	१	१	१	१	१	१	१	१
48	१५.०	फार्म दिवस	पटक	१	०.१	१	१	०.५	१	१	१	१	१	१	१	१	१	१	१
49	१६.०	दुग्ध दिवस	पटक	१	०.१	१	१	०.५	१	१	१	१	१	१	१	१	१	१	१
50	१७.०	फार्म सुधार समिति तथा किसानसंग अन्तक्रिया	पटक	१	०.१	१	१	०.५	१	१	१	१	१	१	१	१	१	१	१
51	१८.०	जर्सी न्युक्लियस हड व्यवस्थापन	संख्या	१२४	१२.९२	१२४	१२४	६५	१२४	४.३१	४.३१	४.३१	४.३१	४.३१	४.३१	४.३१	४.३१	४.३१	४.३१
52	१९.०	बाच्छा बाच्छी उत्पादन	संख्या	२५	०.४५	२५	१	२.२५	१	१	१	१	१	१	१	१	१	१	१
53	२०.०	साँढे बहर, बाच्छा बाच्छी पालन	संख्या	५०	०.९९	५०	५०	५	५०	०.३३	०.३३	०.३३	०.३३	५०	५०	५०	५०	५०	५०
54	२१.०	रिजलसमेन्ट बाच्छी हुकाउने	संख्या	५०	०.९९	५०	५०	५	५०	०.३३	०.३३	०.३३	०.३३	५०	५०	५०	५०	५०	५०
55	२२.०	हरियो घाँस उत्पादन	हेक्टर	१०	०.५०	१०	५	४	५	५	५	५	५	५	५	५	५	५	५
56	२३.०	हे बनाउने	मे.ट.	१००	०.५५	१००	१००	२.७५	१००	०.५५	०.५५	०.५५	०.५५	१००	१००	१००	१००	१००	१००
57	२४.०	माइलेज बनाउने	मे.ट.	१००	०.२०	१००	१००	१.५	१००	०.२०	०.२०	०.२०	०.२०	१००	१००	१००	१००	१००	१००
58	२५.०	हरियो घाँस उत्पादन खिमी फार्म	हेक्टर	५	०.५०	५	२.५	२.५	५	२.५	२.५	२.५	२.५	५	५	५	५	५	५
59	२	मासुमा आत्मनिर्भर कार्यक्रम																	
60	१.०	बगर ब्रिडर समूह गठन तथा संचालन	संख्या	१	०.५०	१	१	४	१	१	१	१	१	१	१	१	१	१	१

सुदामा

सुदामा



A	B	C	D		E	F		G	H		I	J		K	L	M	N	O
			वार्षिक कार्य	परिमाण		नैसर्गिक	कार्य लक्ष्य		आर	परिमाण		प्रगति	प्रगति					
12		इकाई																
13	आयोजनाको प्रमुख कार्यहरू																	
14																		
15	२	३	४	५	६	७	८	९	१०	११	१२	१३	१४	१५	१६	१७	१८	१९
61	बंगुर ब्रिडर समूह फ्लोअप पुवाञ्चल	पटक	३	०.२१	०.२१	०.२१	०.२१	१	१	१	१	१	१	३	०.२१	१००	१००	
62	रेक्राडिग अनुगमन	पटक	२	०.०४	०.०४	०.०४	०.०४							२	०.०४	१००	१००	
63	इन्तर्चग ब्याक्सिनेसन, औषधि उपचार	पटक	२	०.३०	०.३०	०.३०	०.३०	१	१	१	१	१	१	२	०.३०	१००	१००	
64	बंगुरपालन व्यवस्थापन तालिम	पटक	१	०.२०	०.२०	०.२०	०.२०							१	०.२०	१००	१००	
65	माउ बंगुरपालन	संख्या	२०	२.१९	२.१९	२.१९	२.१९	२०	२०	२०	२०	२०	२०	२०	२.१९	१००	१००	
66	पाठाभाठी उत्पादन	संख्या	२३०	०.१०	०.१०	०.१०	०.१०	७८	७८	७८	७८	७८	७८	१५२	०.०६	६०	६०	
67	पाठाभाठी विक्री वितरण	संख्या	२००	०.०८	०.०८	०.०८	०.०८	६८	६८	६८	६८	६८	६८	२००	०.०८	१००	१००	
68	गन्धसमेन्ट बंगुर खरिद र पालन	संख्या	६	०.१२	०.१२	०.१२	०.१२	६	६	६	६	६	६	६	०.१२	१००	१००	
69	साइलेंज बनाउने	मेट	१००	०.३०	०.३०	०.३०	०.३०	१.५	१.५	१.५	१.५	१.५	१.५	११०	०.३०	१००	१००	
70	चालु खर्च अन्तर्गतका कार्यक्रमहरूको जम्मा			५१.८७	२६१.२३	५१.८७	२६१.२३								५१.८७			
71	कार्यक्रम खर्च तर्फको जम्मा (क+ख)			५६.४३	३८४.७४	५६.४३	३८४.७४								५६.४३			
72	उपभोग खर्च																	
73	कार्यक्रम सन्चालन खर्च																	
74	कुल जम्मा (ग+घ+ङ)																	
75							३८४.७४											

भारत प्रगति प्रतिशत: ९९.६३

रजिस्ट्रार

रजिस्ट्रार



आयोजनाको लक्ष्य अनुरूप अपेक्षित प्रतिफल सुचक तथा प्रगति

आयोजनाको नाम: पशु विकास फार्म, जिरी दोलखा

बजेट शिर्षक नं.: ३२७१०७-३४

आ.व. २०७४/०७५

सि.न.	क्रियाकलापहरू	ईकाई	बार्षिक लक्ष्य	तेस्रो चौमासिक लक्ष्य	बार्षिक प्रगति
अ	आयोजनाको लक्ष्य अनुरूप अपेक्षित प्रतिफल -Output)				
१	१२० वटा जर्मी गाई पालनबाट ४२ बाच्छायाच्छी उत्पादन भई १५ वटा बहार प्रजननको लागि र रिप्लेसमेन्टको लागि २० वटा बाच्छी हुकाईने छ।	संख्या	२५	५	४९
२	चरन तथा घाँसेवाली व्यवस्थापन अन्तर्गत १५ हेक्टरमा हरियो घाँसे लगाई १५० मे.ट. हे र १०० मे.ट. साइलेज उत्पादन भई गाईको आहारमा पूर्ति गरिनेछ।	मे.ट.	२५०		
३	बंगुरको न्युक्लियस हर्डमा १८ वटा माउ व्यवस्थापनबाट २३० वटा पाठापाठी उत्पादन भई २१० वटा पाठापाठी ब्रिडर कृषकहरूमा वितरण हुनेछ।	संख्या	२३०	७८	१५२
आ	कार्यान्वयन सम्बन्धी अन्य कार्यहरू	संख्या			
	प्रारम्भिका कार्यहरू	संख्या			
१	जग्गा प्राप्ति	हेक्टर			
२	जनशक्ति आपूर्ति	संख्या			
३	कन्सल्टेन्टको नियुक्त (क) विदेशी (ख) स्वदेशी				
४	आपूर्ति निर्माण र अन्य कार्य गराउन ठेक्का दिने सम्झौता गरिने कार्यको लागि	र.ह.उ.र.मा।			
५	दातृ संस्थामा लेखापरीक्षण प्रतिवेदन पठाउने	संख्या			
६	सोधभर्ना लिन बाकी	र.ह.उ.र.मा।			

Annex 3: Financial Detail.



आ.व. : २०७४-७५
 बजेट उपांशपत्र नं. : ३२/७०७-३ ४,
 मन्त्रालय : कृषिभूमि व्यवस्था तथा सहकारी
 विभाग : पशु सेवा
 आयोजनाको नाम : पशु विकास फार्म.
 स्थान : जिरी, दोलखा
 आयोजना पुरा हुने मिति : सालवसाली
 आयोजना शुरु भएको मिति : २०१४
 कार्यालय प्रमुखको नाम :

बजेट रु लाखमा

बजेट शिर्षक नम्बर	कार्यक्रम	विनियोजन	खर्च	प्रगति %
३२/७०७ ३/४	पंजीगत	१२३.५१	११२.०३५६६६०	९१.७१
	चालु	३७९.६३	३६८.८३९१६५	९१.९६
	कुल जम्मा	५०३.१४	४८०.९०५१४३९	९१.३६

यस बाषिर्क अवधिमा राजश्व संकलन रु. ४३,७५,०००/-

**Business Plan of
Model Pig Production Centre
at
Balambu in Kathmandu**



By:
Shyam S Yadav
(shyamtiti@gmail.com)

EXECUTIVE SUMMARY

An attempt was made to prepare a business plan to fulfill the partial requirements for one-week Officer Level Business Plan Management Training in June 2018 at Directorate of Livestock Services Training and Extension (DLSTE), Lalitpur. An idea of pig production was evolved from the sightseeing in Balambu and Kirtipur areas, reviewing the literature and roughly doing Strength, Weakness, Opportunity, and Threat (SWOT) analysis. In that area, there were some piglets producers but they were not producing in a systematic and strategic way. Hence, a pig farm was proposed to operate at Balambu in joint venture including local commercial pig producer and livestock professional. The proposed farm will produce the piglets at a lower cost and under good care and management practice leading towards the good husbandry practice. There would be a herd of three boars and 30 sows at the farm and about 4.4 hundred piglets will be produced annually for 5 years. The report says daily selling of pork in major hubs of Nepal is 23.84 metric tons with a total value of NRs 7,175,000.0, out of these Kathmandu alone covers 50 percent of the total value. The pork processing industries and meat sellers stated that the pork consumption trend has increased by 10% during the previous years. The government encourages the peasants and entrepreneurs to rear pigs. Increasing demand for pork and supporting in insurance are the opportunities for the farm. But, the lower insured amount (25 to 30 thousand) may not recover the loss in case of disease outbreak. However, preventive measures will be a tool to control it. Making involvement of local people and livestock professional, staying keep in touch with the government officials, and maintaining a good relationship with stakeholders would be the strategic objectives. Leading towards good husbandry practice as possible feeding improved forage up to a certain level and adopting measures of the lowering cost of production of would be the operational objectives. The judicious use of means and resources to achieve clearly defined goals is the success factor i.e. the art of maximization and optimal utilization of resources and means for maximization productivity and profit. The total project cost is estimated to NRs.96,55,350 for five years. Similarly, investment in capital and operating costs are speculated to be NRs.21,32,000 and 75,23,350 for five years. The projection of the payback period (2.14 years), internal rate of return (67.9%) and the benefit-cost ratio (1.8) and SWOT indicators show as a profitable business.

1. INTRODUCTION

It is an attempt to prepare a business plan to fulfill the partial requirements of the one-week training entitled "Officer Level Business Plan Management Training" conducted from June 13 to 19, 2018 at Directorate of Livestock Services Training and Extension (DLSTE), Hariharbhawan, Lalitpur.

Traditionally, pig farming was associated with certain ethnic groups, but in recent years, knowing the scope and potentiality of swine industry, other social groups are also started to join with the business to make it a commercial enterprise. Due to the gradual change in food habit, pork is becoming popular and the volume of production of pigs is about 1.2 million, which is about 7% of the total meat production of the country with an increment of 2.25% annually. Furthermore, the latest report entitled "Analysis of Pig and Pork Market System in Nepal, 2016 (APPMS, 2016)" says the pork processing industries and meat sellers stated that the pork consumption trend has increased by 10% during the previous years. It is estimated that the rate of increment of pork is higher in Kathmandu.

The government of Nepal (GoN) has prioritized to develop this sector commercially. Nepal Rastra Bank (NRB) has directed to development banks to invest at least about 10% of total investment in the agriculture sector; a pig is an integral part of the agriculture sector. Commodity office of swine and poultry under the Department of Livestock Services (DLS) has been conducting several types of training, workshops, with certain supports. Similarly, some projects have been supporting pig and pork production.

The observation and literature indicate that there is a greater scope of pig production in Balambu due to the availability of land on rent, a good opportunity of market and availability of infrastructure. Some of the pig farms have already been producing piglets and pork in this area. But they have been facing higher mortality rate due to lack of hygienic production system under the close observation of livestock professionals. The farm will be an alternative to the prevailing pig production practice.

1.1 Description of the farm

Name of organization : Modal Pig Production Centre (MPPC)

Address : Balambu -8, Chandragiri.

Legal descriptions : The farm will be registered at Chandragiri Municipality and Office of the Small and Cottage Industry Development Committee at Tripureswor.

1.2 Farm Structure and management

The farm will be situated at the lower part of the Balambu -8 in a joint venture that will include an experienced local pig raiser, Livestock Professional and an entrepreneur. The MPPC will have a small structure; one fulltime pig attendant and one seasonal pig attendant. Other activities cost will be linked to respective items. The Livestock Professional will involve in technical assistance, marketing and participating in training and workshop. Fulltime attendant will be overall responsible for care and management including day to day operational activities. Accommodation will be

provided at the center for the couple of attendants, which will look after the pig whole time. The opportunity will be provided to the spouse of attendants to work seasonally.

1.3 Description of product

Previously, pork was popular in the certain community only, but due to changing habit and lifestyle of urban people, it is becoming popular in other community also. The MPPC will produce good quality piglets under close observation and intensive supervision of the livestock professional in the intensive system as possible as good husbandry practice.

1.4 Characteristics of product

The product will be healthy and free from zoonotic diseases. The prevention measures; regular vaccination, drenching and laboratory tests for the certain disease of pigs and piglets will be adopted. More than 3-month aged piglets will be bought from a pig breeding farm of Kirtipur and grown it up to producing piglets. It is assumed that the average body weight of sows and boar will be about 200-250kg.

1.5 Farm status and future plan

The farm will be established in a joint venture with an initial number of 33 opening stock (30 sows and 3 boars). The farm will produce about 450 piglets annually. In addition, to some extend fattened sows will be produced. During the projected period, about 2050 piglets will be produced. The extension of opening stock would be based on the performance of it.

2. MARKET AND MARKETING PLAN

2.1 Overall market

Actual consumption of meat and meat products in the country is influenced by religious, cultural and economic factors. For example, the *Newar, Gurung, Limbu, Rai, Tamang, and Magar*, in particular, are avid consumers of pork; a report portrays about only 2% of the population is estimated to be vegetarian in Kathmandu valley. However, in recent years, consumers are beyond the religion and cultural value to eat pork. Hence, meat demand in the valley is increasing along with the increase in population as well as in income. The food habit is also changing due to increase in purchasing power of the people and availability of diversified items of pork. Market survey says the demand for piglets is growing annually. Higher demands lead to increase price of piglets and the pork consumption trend (10%) during the previous years.

2.2 Specific market

Pigs are being reared usually in outside of the ring road. There are a few small-scale pig farms under operation. There is higher demand for piglets for fattening. Deficit demand is even fulfilled from the outside of the valley. The scenario indicates that there is no any problem in the market for produced piglets. According to APPMS (2016) daily selling of pork in major hubs of Nepal is 23.84 metric tons with a total value of NRs 7,175,000.0, out of these Kathmandu alone covers 50 percent of the total value.

2.3 Market needs and growth trend of piglets

It is reported that the requirement of piglets is fulfilled from the outside of the valley. In recent years the demand for piglets is increasing by 7% and more than that. The demand increases in *Thulo Dashain, Chaite Dashain, Purnima* and *Sankranti* festivals. Butchers of *Kirtipur, Chandragiri* and some extent of adjoining villages of Dhading district are the specific customers for the fattened pigs. Pig producers try to buy piglets to address these occasions' demand. Production practice of pig is traditional, which lacks regular vaccination, drenching and laboratory services. Hence, the center will produce good quality piglets.

2.4 Competition

Most of the piglets are imported from the out of the valley. Only limited numbers of piglets are produced within the valley for fattening. However, 5 to 10 sows are reared by a few pig growers in Kirtipur and Chandragiri area. They are producing piglets traditionally.

2.5 Target market and potential customers

The buyer will come to the farm from the urban as well as a local area to purchase the piglets. The piglets will be sold on bargaining price (not less than 5.5 and 6 thousand for female and male piglets respectively). It is found that the average purchasing price of piglets is 6 thousand in the market. It is assumed that the targeted market for the produced piglets would be Kirtipur, Chandragiri and adjoining part of Dhading.

2.6 Market analysis

Purchasing capacity and increasing awareness of the people regarding hygienic food intake leads to produce good quality of piglets and pork. The demand is also affected by the festival time and culture of habitats. Considering these factors the market analysis has been done as below;

	New product	Old product
New product	<ul style="list-style-type: none">● Superior piglets● Healthy piglets● Leading to good husbandry practice.	<ul style="list-style-type: none">● Inform about the quality of the piglets and zoonotic diseases.
Old market	<ul style="list-style-type: none">● Inform and assure to the piglet's buyers about new, free from zoonotic diseases due to growing under the direct supervision of livestock professional.	<ul style="list-style-type: none">● Lack of good quality and healthy piglets.

2.7 Marketing plan

The demand for piglet and pork are increasing annually. Within the year the price of meat and meat products increases in festival time. So, the fattened pigs will be sold at festival period such as; *Thulo Dashain, Chaite Dashain, Chaite Purnima, Jestha Purnima, Saune Sankranti, Maghe Sankranti*, and *Gathe Mangal*. To sell in these periods, pig raisers targets to buy piglets to match

it. First-year about 225 piglets will be produced and sold. Furthermore, about 450 piglets will be sold annually. List of pig raisers will be prepared and updated to keep in touch with them periodically.

2.8 Promotional plan

Marketing promotion is the most important factor for enterprises. Due to the involvement of livestock professional in this enterprise, the opportunity to advertise our product by the governmental agencies will be coped. Launching websites and corresponding online would help the marketing of piglets.

2.9 Distribution channel

The products will be sold from the farm. There will not be any extra channel for this purpose. However, e-marketing would be launched for making easier for the buyers.

3. PRODUCTION PLAN / OPERATION

3.1 Startup operation

- Analyzing the obtained information from sightseeing and literature reviews.
- Making discussion to stakeholders.
- Making assurance of hiring land from the local people.
- Making agreement or memorandum of understanding among the business partner for launching the business.
- Moving ahead for the registration process.
- Developing management team and responsibilities.
- Hiring the helpers/laborers

3.2 Facilities

The MPPC will be located at the lower belt of Balambu-8 of Chandragiri, Kathmandu. About 2 ropanies of pasture land and 3 ropanies for civil works will be hired. Fencing would be made for biosecurity purpose. The opening stock would be 33 (3 boar and 30 sows). About 450 piglets would be produced annually. Sheds will be roofed from color either tin or plastic-sheet. The floor will be cemented and crates will be made from GI pipes.

3.3 Rearing practices

The intensive system would be followed.

I. Feed

Ration will range from soft fiber contained grasses; Berseem, Moringa, peas, to concentrate. *Kudo* refers to cooked feed containing flour, pumpkins, potato, radish, and other vegetables. Feed ingredients will be bought from the market and prepared using by mixture at the center. Some hormone-like growth stimulators, feed additives will be included in feed including mineral supplements.

II. Vaccination, medication and supervision

Vaccination and medication are required to prevent and treat disease. Each pig will be vaccinated according to requirements. Anthelmintics will be used to treat/prevent internal parasites. Similarly, medicine will be used for external parasites. For this purpose, NRs 1200 will be spent per pig per year. Supervision by the livestock professional will be implemented for at least two days a week. The frequency of the supervision will be changed according to its requirement.

III Measures of lowering cost of production

There are some measures that will reduce cost of production of pig;

- Keeping genetically superior breed of pig.
- Reducing longer farrowing interval period.
- Supplying up to certain level of good forage.
- Fixing or replacing broken feeders on time to prevent the loss of feed.
- Keeping in mind feed loss during feeding.
- Feeding different feed according to age and requirement.
- Selling piglets on time and focusing for breeding purpose.
- Bench marking farm's biological and financial performance.
- Culling unproductive pig on time.

3.6 Positive aspects and possible risks

Positive aspects

- Supporting of farms with soft loans and grants by different levels of governmental organizations.
- The government has been encouraging peasants and entrepreneurs to rear pigs by providing financial support in insurance.
- Participating in training and tours specially conducted by the local authority.

Possible risks

- The outbreak of diseases and profit of the farm may be affected in case of sudden change in the government economic policy.
- Hardy procedure of soft loan
- Pork husbandary is not accepted by most of the community.

4. STRATEGIES

4.1 Vision

To help in increasing availability of piglets in Balambu and be a well known of good quality of piglets producer center.

4.2 Mission

The farm will increase the piglets in the Balambu area through a combination of high quality of supplying piglets.

4.3 Goal

Supply regularly healthy piglets to pig growers in the community.

4.4 Objectives

I. General objectives

- Analyze the financial aspect of piglet production.
- Demonstrate to rear piglet production.
- Ensure the high quality of the product.

II. Strategic objectives

- Make involvement of technical person and local people to the farm to tackle technical and locally emerged problems respectively.
- Sell weaned piglets especially to pig growers and governmental organization as well as non-governmental organizations.
- Stay keep in touch to stakeholders as well as personnel of government.
- Increasing involvement in training, visit, and tour conducted by the governmental organizations.

III. Operational objectives

- Drench and get laboratory service regularly.
- Assign social, cultural and feed related responsibility to the local partner.
- Assign technical responsibility to livestock professional.
- Growing Moringa and other forage.
- Provide feed additive (acidifuyer, prebiofics, Probioty enzyones, etc).

4.5 Strengths, weaknesses, opportunities and threats (SWOT) analysis

Piglets production is an inclusive activity, related to meat animals; care and management, housing, medication, and feeding. Before making the decision, whether to invest in livestock farming or not, one should carefully analyze the associated risk factors, which is made in this business plan. A SWOT analysis helps in analyzing these factors, which can play important role in making the decision.

4.5.1 Strengths

- Source of farmyard manure.
- Working in team; highly experienced pig raiser, livestock professional and entrepreneur.
- Having capacity to grow and adapt within the pig farming entrepreneurs.

4.5.2 Weaknesses

- Higher cost of feed.

4.5.3 Threats

- Entry of new entrepreneurs.
- The sudden change in government rules and regulations.

- Different zoonotic disease outbreak may be occur
- Piggery manure and effluent may threaten human health.
- Environment pollution from manure accumulation i.e. water, land and air pollution.

4.5.4 Opportunities

- Higher demand for meat and meat products.
- Pig production is the prioritized program of the government in which various supports available for farmers including insurance support
- Farmyard manure can be used for agricultural practice.
- Lack of competitor farm and availability of labour locally.
- Nepal Rastra Bank has directed to allocate loan amount the agriculture sector.

On the basis of above information of SWOT analysis, an inference can be drawn that the strengths and opportunities outweigh the weaknesses and threats.

4.5 Key success factors

Many studies show the potentiality of pig production in semi urban areas. Weight, growth, and efficiency of the farm are major factors influencing of the economical meat production. Litter production is highly complex as it includes farm management, feeding, housing diseases control and hygienic production. Farm management practices include providing nutritious feed, comfortable shed/barn with well ventilated, clean drinking water, and administering of drenching and vaccination regularly including laboratory services. The judicious use of means and resources to achieve clearly defined goals is the success factor i.e. the art of maximization and optimal utilization of resources and means for maximization productivity and profit. The selection of piglets during the purchasing period is also a crucial factor which needs to get technical assistance from the livestock professional and experts. The multiplier effect of above consideration may lead to successful and profitable farms. In addition, the following points are to be taken as key success factors.

- Good quality piglets and increased litter size.
- Involvement of local people and technical personnel.
- Experienced manpower.
- Strong coordination with governmental organizations and other stakeholders as well as local personnel

4.6 Competitor analysis

There is no any commercial pig production farm under operation. So, it may not need to analyze it immediately. However, a few pig producers are rearing some pig traditionally for their livelihood

4.7 Quality assurance

To make qualitative product our slogan will be "quality is our duty" for that regular vaccination, drenching and controlling external parasites, will be taken into account. Drenching, vaccination and laboratory support will enhance the health piglets and pigs.

5. FINANCIAL PLAN
5.1 Cash flow

Items	Units	Unit cost(Rs.)	Quantity					Value (Rs.)						
			2019	2020	2021	2022	2023	2019	2020	2021	2022	2023		
Investment Costs														
A. Civil works/construction														
1. Shed I for sow (10 X 15 m)	Sqmt	2,500	150											
2. Shed I for sow and boar (10 X 12 m)	Sqmt	2,500	120											
3. Shed for weaned piglets (10 X 15) X 2 cum store	Sqmt	2,500	300											
4. Farrowing pen	Sqmt	2,500	22											
5. Sick pen	Sqmt	2,500	8											
6. Farrowing crate in the farrowing pen	LS	5,000	8											
7. Electricity / wire fitting	LS	5,000	8											
8. Fencing for biosecurity	LS	100,000	1											
Sub- Total														
Machinery and Equipment														
Grander/mixture machines/ accessories fixing	Set	200,000	1											
Water tanks (10000 lit cap) and pipes fittings	LS	100,000	1											
Feeders and drinkers	LS	100,000	1											
Other equipment	LS	12,000	1											
Wooden boxes in the farrowing pen with bulbs	LS	5,000	8											
Sub- Total														
Total Investment														
Operating Cost and other inputs														
Feed ingredients	Kg	25	39,105	39,105	38,610	38,610	38,610	38,610						
Medicines/vaccines etc	LS	1,200	33	33	33	33	33	33						
Forage inputs and cultivation	Ropani	4,000	2	2	2	2	2	2						
Purchasing Boar	No.	15,000	3											
Purchasing of gilts	No.	5,800	30											
Farm reg.	LS	10,000	1											
Land rent	Ropani	6,000	5	5	5	5	5	5						
Sub- Total														
Human Resources Cost														
Pig attendants	Person	144,000	1	1	1	1	1	1						
Seasonal Employment														
Pig attendants or for forage cultivation	Person	72,000	1	1	1	1	1	1						
Sub- Total														
Lease, Power, Fuel & Utilities														
Land for forage cultivation	Ropani	2	10,000	11,000	12,000	13,000	13,500	13,500						
Land for the shed and another purpose	Ropani	3	10,000	11,000	12,000	13,000	13,500	13,500						
Electricity (Nrs 1000 / per month initially)	LS	1	12,000	12,000	12,000	13,000	13,500	13,500						
Water tanks	LS	1	12,000	12,000	12,000	13,000	13,500	13,500						
Sub- Total														
Marketing & Distribution Costs														

Items	Units	Unit cost(Rs.)	Quantity					Value (Rs.)					
			2019	2020	2021	2022	2023	2019	2020	2021	2022	2023	
Launching website /training/workshop attaining	LS	1	50000	50000	50000	50000	50000	50,000	50,000	50,000	50,000	50,000	50,000
Stationery and other inputs	LS	1	10000	1000	10000	10000	10000	10,000	10,000	10,000	10,000	10,000	10,000
Insurance amount beard by farm	LS	1	10500	10500	10500	10500	10500	10,500	10,500	10,500	10,500	10,500	10,500
Unforeseen expenditure	LS	1	40000	40000	40000	40000	40000	40,000	40,000	40,000	40,000	40,000	40,000
Communication	LS	1	12000	12000	12000	12000	12000	12,000	12,000	12,000	12,000	12,000	12,000
Sub- Total								122,500	113,500	122,500	122,500	122,500	122,500
Maintenance Costs													
Civil Structures (1.5% of Structures)								25,200	25,200	25,200	25,200	25,200	25,200
Machinery & Equipment (5% of Machinery)								22,600	22,600	22,600	22,600	22,600	22,600
Sub- Total								47,800	47,800	47,800	47,800	47,800	47,800
Total Operating Cost								1,615,525	1,472,825	1,473,750	1,479,050	1,479,050	1,482,200
Tax on profit								-	-	578,111	631,270	631,270	682,352
Total Cash Outflow (Investment+Operating Cost+Tax)								3,747,525	1,472,825	2,051,861	2,110,320	2,110,320	2,164,552
Revenues													
Piglets selling (male)								678,000	1,417,782	1,488,671	1,563,105	1,641,260	1,641,260
Piglets selling (female)								616,000	1,241,884	1,303,978	1,369,177	1,504,488	1,504,488
Boars selling at the end of the scheme													273,489
Sows selling at the end of the scheme													2,187,911
Manure, feed sacks and manure	LS	1	50,000	53,000	56,000	58,000	60,000	50,000	53,000	56,000	58,000	60,000	60,000
Culled sows selling	LS							-	630,000	661,500	694,575	694,575	-
Total Revenues (Net of VAT & duties)								1,344,000	3,342,666	3,510,149	3,684,856	5,667,149	5,667,149
Net Cash Flows								(2,403,525)	1,869,841	1,458,288	1,574,536	3,502,596	3,502,596
Cumulative Cash Flow								(2,403,525)	(533,684)	924,604	2,499,140	6,001,736	6,001,736
Discount Factor (7%)		1.07						0.9346	0.8734	0.8163	0.7629	0.7130	0.7130
Discounted Net Cash Flow								(2,246,285)	1,633,191	1,190,397	1,201,206	2,497,303	2,497,303
Discounted Cumulative Cash Flow								(2,246,285)	(613,094)	577,304	1,778,510	4,275,812	4,275,812
NPV @ 7%												4,275,812	4,275,812
Payback Period													2.14
IRR													67.93%
BCR													1.82

Note

- Working capital will be managed from the three partners and cash-inflow will be utilized in the respective years.
 - The basic cash flow should include all the cash inflow and outflow from the business.
 - The cash outflow from operating cost and cash inflow from revenues may differ from profit and loss account as profit and loss account are prepared on an accrual basis (Based on transaction, not on a cash basis).
 - Purchasing of piglets can also be calculated under the heading of investment cost.
- Calculation of working capital Requirement**
- The salvage or remaining value of fixed assets is the money that could be received by selling the fixed assets at the end of the project.
 - Discount factor represents the time value of money.
 - The net present value represents the actual worth of the project after considering the time value of money
 - IRR represents the discount factor where the net present value is zero.
 - Payback period is the period in years for the project to return the investment made.

5.2 Profit and loss account

Description	Value					Remarks
	2019	2020	2021	2022	2023	
Total annual revenue	1,344,000	3,342,666	3,510,149	3,684,856	5,667,149	
Value Added Tax (VAT)						
Net revenue	1,344,000	3,342,666	3,510,149	3,684,856	5,667,149	
Cost of revenue (Operating Cost)	(605,000)	1,371,575	1,369,913	1,367,422	3,179,441	
Operating profit (Gross)	1,949,000	1,971,091	2,140,236	2,317,435	2,487,708	
Depreciation	213,200	213,200	213,200	213,200	213,200	
Profit before finance charges	1,735,800	1,757,891	1,927,036	2,104,235	2,274,508	
Finance charges	-	-	-	-	-	
Profit before tax	1,735,800	1,757,891	1,927,036	2,104,235	2,274,508	
Income tax@30%	-	-	578,111	631,270	682,352	
Net profit	1,735,800	1,757,891	1,348,926	1,472,964	1,592,156	
Dividend paid						
Retained earning	1,735,800	1,757,891	1,348,926	1,472,964	1,592,156	
Ratio analysis						
Return on Investment (ROI) %	81%	82%	63%	69%	75%	
Gross margin (GM) %	145%	59%	61%	63%	44%	
Net profit (NP) %	129%	53%	38%	40%	28%	

Basis for Calculation

ROI = Net profit/ Investment*100

GM = Net Operating Profit (Gross)/ Total Revenue*100

NP = Net profit/ Total Revenue*100

Note

- The profit and loss account shows the revenue, cost, and profit made by the project that is a financial performance for each year.
- The profit and loss account is accounted on an accrual basis (Based on actual transaction rather than on receipt or payment of cash).
- The revenue is based on the marketing/sales plan and production plan of the project.

5.3 Calculation of depreciation

Particular	2019	2020	2021	2022	2023	Remarks
Opening balance						
Land						
Civil work	1,680,000	1,512,000	1,344,000	1,176,000	1,008,000	
Machinery and equipment	452,000	406,800	361,600	316,400	271,200	
Less: Depreciation						
Depreciation on civil work (5%-20 years)	168,000	168,000	168,000	168,000	168,000	
Depreciation on machinery & Equipment (10%- 10 years)	45,200	45,200	45,200	45,200	45,200	
Less: Disposal						
Closing balance						
Land						
Civil work	1,512,000	1,344,000	1,176,000	1,008,000	840,000	
Machinery and equipment	406,800	361,600	316,400	271,200	226,000	

5.4 Balance sheet

Description	Value (Rs.)					Remarks
	2019	2020	2021	2022	2023	
Assets						
Current assets						
Cash	(1,809,913)	59,928	1,518,216	3,092,752	6,595,348	
Inventory stock	2,220,525	2,321,775	2,425,613	2,537,241	840,000	
Total current assets	410,613	2,381,703	3,943,829	5,629,993	7,435,348	
Long-term assets						
Net fixed assets	1,918,800	1,705,600	1,492,400	1,279,200	1,066,000	
Total long term assets	1,918,800	1,705,600	1,492,400	1,279,200	1,066,000	
Total assets	2,329,413	4,087,303	5,436,229	6,909,193	8,501,348	
Paid-in-equity	593,613	593,613	593,613	593,613	593,613	
Retain earnings	1,735,800	3,493,691	4,842,616	6,315,580	7,907,736	
Total equity & reserve	2,329,413	4,087,303	5,436,229	6,909,193	8,501,348	
Total Liabilities and Equity	2,329,413	4,087,303	5,436,229	6,909,193	8,501,348	
Revenue/ fixed assets (%)	70%	196%	235%	288%	532%	
Return on assets (%)	58%	82%	65%	53%	67%	

5.5 Inventory

Particular	Year					Remarks
	2019	2020	2021	2022	2023	
Boars values	225,000	236,250	248,063	260,466		
Sows values	1,800,000	1,890,000	1,984,500	2,083,725		
Feed ingredients	195,525	195,525	193,050	193,050		
Salvage value from infrastructures					840,000	
Total	2,220,525	2,321,775	2,425,613	2,537,241	840,000	

Note

- It is assumed that all the business transactions will be done in cash. As a result, there are no debtors or payables.
- We have not calculated the current ratio as there is no any current liability
- Return on assets: Total Revenue/ Total Assets
- Not calculated debt/equity ratio as no debt has been taken from outside.
- Paid in equity represents the money invested by proponent for business development and working capital.
- Cash and Bank Balances represent the equity paid, grants and net cash flow.

5.6 Summary of projection

Particular	I	II	III	IV	V	Total
Total investment on capital	2132000					2132000
Total operating cost	1615525	1472825	1473750	1479050	1482200	7523350
Total cost	3747525	1472825	1473750	1479050	1482200	9655350
Total revenue	1344000	3342666	3510149	3684856	5667149	17548820
BCR						1.82
Total no. of piglets production	225	450	450	450	450	2025
Per unit cost of piglets						4767.231
Per unit revenue from piglets						8664.551

5.7 Cost table

Items	Units	Unit cost (NRs.)	Required Quantity	Total Cost (Quotes)	Shared to		Eligible		Items		Business contribution on Ineligible Items
					Business Contribution	%	%	Bank Loan			
Investment costs											
Civil works											
Shed and other works				1,680,000							
Sub- total				1,680,000							
Machinery and equipment											
Equipment and other				452,000							
Sub- total				452,000							
Other Investment (Description)											
Limited "working Capital" to cover materials inputs which are required to bring the business in operation	Months	98,935									
Sub- Total											
Total business development cost (NRs.)				2,132,000							
Grand Total				2,132,000							

5.8 Stock and other projection

Particular	Year					Remarks
	I	II	III	IV	V	
A. Herd size						
Total opening stock pig	33	33	33	33	33	
Opening stock of boar	3	3	3	3	3	
Opening stock of gilt	30	30	30	30	30	
Mortality of adult (3%)	1	1	1	1	1	
Sow after mortality	29	29	29	29	29	
No. of farrowing	25	25	25	25	25	
No. of piglets	250	500	500	500	500	
No. of piglets after mortality (10%)	225	450	450	450	450	
No. of male piglets for saleable	113	225.0	225.0	225.0	225.0	
No. of female piglets for saleable	112	225.0	225.0	225.0	225.0	
B. Feed requirements and it's per unit price						
Required concentrate (3,5 kg/pig for 6 month)kg	20790	20790	20790	20790	20790	3.5
Required concentrate (3 kg/pig for 6 month)kg	18315	18315	17820	17820	17820	3
Total required concentrate (kg)	39105	39105	38610	38610	38610	
Raw materials cost of feed ingredients NRs	977625	1006954	1037162	1068277	1100326	
C. Medicines/vaccines etc						
Medical cost (NRs), per unit	1200	1236	1273	1311	1351	
Medical expenses (NRs)	39600	40788	42012	43272	44570	
D. Selling price						
Male piglets per unit	6000	6300	6615	6946	7293	
Female piglets per unit	5500	5775	6064	6367	6685	
Culled sows price per unit	60000	63000	66150	69458	72930	
No. of sows (culled)		10	10	10		
No. of female for selling after stock replacement	112	215.0	215.0	215.0	225.0	
E. Revenue						
Selling male piglets	678000	1417782	1488671	1563105	1641260	
Selling female piglets	616000	1241884	1303978	1369177	1504488	
Selling sows at the end of the scheme					2187911	
Selling boar at the end of the scheme					180000	
Selling culled sows		630000	661500	694575	0	
F. Insurance						
Amount for insurance of boars	90000	90000	90000	90000	90000	
The amount for insurance of sows	750000	750000	750000	750000	750000	
Amount for premium 5% of total insurance amount	42000	42000	42000	42000	42000	
Amount granted by government	31500	31500	31500	31500	31500	
Amount beard by farm	10500	10500	10500	10500	10500	

5.9 Techno-economic parameters

SN	Description	Average	Remarks
A.	Production Traits		
	Farrowing interval (Months)	6.0	
	Farrowing percentage	86.2	
	Average no. of litter per farrowing	12.0	
	No. of farrowing per year	2.0	1 for the first year
	Sex ratio	1.0	
	Mortality (%) Adults	3.0	
	Mortality (%) piglets	10	
	Saleable age of piglets (months)	2.0	
B.	Expenditure norms/Space requirement (sqmt.per head)		
	Boar or sow	8.0/8.0	
	Hog/Gilts	2.5	
	Piglets	1.0	
	a) Cost of green fodder cultivation (Rs./ropani/year)	4,000	
	b) Land required (ropani)	5	
	b) Land rent/ ropani	4000	
	Labour (No.), fulltime and seasonal	1 and 1	
	Labor wages (Rs.per month) fulltime or seasonal	12000 and 12000	
	Insurance (5 % of the insurance value)		
	Boer or sow	10% and 10%	
	Veterinary aid (Rs./adult/year)	1200	
	Water, electricity and other misc. expenses (Rs./adult/month)	50	

Note: Some assumptions may not be applicable in certain location/cercumstances.

ACKNOWLEDGMENTS

It is my great pleasure to express heartfelt thanks to our respected Director General, Dr. B. K. Nirmal, DLS and Program Director, Dr. D. Shrestha, DLSTE, Hariharbhawan, Lalitpur who had provided me an opportunity to participate in the training.

I would like to express a special debt of gratitude to Mr. R. M. Poudel, and Mr. D. R. Pradhan, Instructors of the training, for their guidance to complete it in this form. I also wish to thank my seniors as well as the participants of the training for their friendly supports to accomplish it. I feel great pleasure to express sincere thanks to the participants of the presentation and feedback givers.

Shyam S Yadav

