



# **National Livestock Welfare Survey**

**A Situational Analysis of Livestock Sector in Nepal**



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Submitted By:

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Mr. Bhumidatta Poudel

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## Acronyms

CBS	Central Bureau of Statistics
FGD	Focused Group Discussion
GDP	Gross Domestic Product
GoN	Government of Nepal
KAP	Knowledge Attitude and Practice
KG	Kilogram
KII	Key Informant Interview
MOAD	Ministry of Agriculture and Livestock Development
MoALMC	Minister of Agriculture, Land Management and Cooperatives
MOLD	Ministry of Agriculture and Livestock Development

## Executive Summary

The National Livestock Welfare Survey provides a fresh perspective on the welfare of livestock in Nepal. It analyzes the breeding, rearing, transportation and slaughtering practices in the livestock industry along with the prevalent acts and policies that directly influence the development of livestock and animal welfare. Although animal husbandry and meat industry are recognized as an important economic activity in Nepal, animal welfare is a less discussed and formalised topic in Nepal. The following research in fact acts as one of the first of its kind.


R.H. Consultants Pvt. Ltd. in coordination with and support from Animal Nepal (AN), conducted the research in 14 districts of Nepal comprising of all 7 Provinces and all 3 geographical areas (Terai, Hill, Mountain). The findings of this report were collected from different relevant stakeholders including Consumers, Animal Husbandry Farmers, Meat Producers/Butchers, Government Authorities, Animal Transporters, Police and Donor Agencies funding large livestock development projects.

A major part of the data collection was done through a total of 770 Interview Schedule (IS) with Consumers (388), Animal Husbandry Farmers (255), Meat Producers/Butchers (102) and Government Authorities (25). The qualitative data were collected through Focus Group Discussions (FGD) and Key Informant Interviews (KII). A total of 1280 respondents were reached during this survey.

### Findings

The general finding is that the main stakeholders in the livestock industry lack awareness of and access to animal welfare related policies and programs. Nine in ten meat producers and farmers have never heard of policies related to the livestock sector. There is an immediate need to close the gap between policy and implementation and educate the stakeholders on legal provisions and good practices.

An analysis of acts and policies of the Government of Nepal show that animal welfare was included in the *Muluki Ain* (the National Code) as early as 1854. More recently livestock development and animal welfare related acts and policies have been



developed. Due to a lack of awareness, support and compliance mechanisms, many legal provisions remain unimplemented.

Widespread, effective education campaigns on animal health, safety and welfare are needed to encourage stakeholders to implement animal welfare practices. An effective mechanism to address compliance and a functional grievance handling is needed at different levels. What's more, stakeholders need to be adequately equipped and supported to be able to fulfill their roles in improving animal health and welfare.

However, before addressing the gap, Government authorities themselves need to become aware of existing legislation and provisions. The government also needs to reach out to civil society and non-governmental organizations and work alongside with them to improve conditions. Consumers need to become aware of their obligations as responsible citizens when it comes to animal welfare and meat consumption.

Among the worrying outcomes are the fact that only 1 percent of animals are killed in a humane manner. The overwhelming majority of animals are killed using traditional techniques including decapitation or hammering and/or bleeding to death. With half of meat shops unregistered and without a fridge or freezer, hygiene standards remain a worrying issue.

One positive outcome is the fact that the vast majority of interviewees believes that animals can feel pain and deserve a better deal. This provides a strong foundation for interventions to improve animal welfare standards.

Another interesting outcome is the readiness among a high percentage of stakeholders to become vegetarians, mostly for health reasons. Among government authorities over 30 percent is ready to give up meat, while one in five consumers aims to turn vegetarian.

Recent studies point to the detrimental environmental impact of the meat industry worldwide. According to the FAO, over the past 50 years, global meat production has almost quadrupled from 84 million tons in 1965 to more than 330 million tons in 2017. Developing countries are expected to account for almost all of the additional increase. With Bhutan preparing itself to become fully organic by 2020, Nepal too has the

potential to introduce sustainable livestock farming practice with respect for man, animal and environment.

## **Consumers**

Among consumers, an important finding shows that almost all (93 percent) prefers freshly cut meat instead of frozen meat, as it is 'healthier and tastier'. Consumers appear to be largely unaware of the high incidence of bacterial, viral and parasitic zoonotic diseases found in fresh cut meat, as shown by various research. This preference creates an obstacle to the introduction of humane slaughter, as animals tend to be killed at the butcher shop, with household tools. On a more positive note, 89 percent of consumers prefers to buy meat from animals raised at free range farms, providing an incentive to farms that allow more natural behaviour.

It is not surprising that most consumers (78 percent) are unaware of the existence of scientific slaughterhouses and its benefits. In Nepal at present there are only seven registered slaughterhouses, most of which do not operate due to high operation costs and the competitive market.

Although most consumers feel it is not humane, animal sacrifice at the household level is widely practiced in Nepal. Although decreasing, people feel pressured to continue the practice due to cultural norms.

## **Farmers**

The survey shows that the vast majority of farmers (80 percent) operate self-run farms, with no paid staff, and never received any formal training. Half of the farmers rely on traditional ways of farming, while 48 percent introduced a semi-intensive farming system and add factory feed to the diet of the animals. This shows that at 2 percent intensive farms are still rare in Nepal. Among the different geographical areas the Himalayan region, where yaks and Himalayan goats are reared, is home to most of the free range farms.

After meat, the second most prevalent animal product is milk followed by other dairy products (cheese, butter, curd, eggs) and wool. While two-thirds of respondents do not



take considerations during the transportation of animals, the remaining say animals should not be hurt and there should be provisions for food, safety, health and space.

Quarantine is one of the most neglected aspects in the Nepalese livestock industry. While 60% of responding farmers has heard of quarantine procedures, none have any first-hand experience.


When it comes to breeding animals, 84 percent of farmers use natural methods, while 10.20 percent use Artificial Insemination. Eight in ten farmers perform health check-ups only on a need basis rather than routine checkups. Nine out of ten farmers are unaware of policies and acts related to animal welfare. While 40 percent of farmers are aware of government insurance policies, only 12 percent have insured their livestock.

Only five out of ten farmers have some understanding of animal welfare. However, when explained the concept, 85 percent agrees that animal welfare is important for the livestock industry. Almost all respondents (97 percent) agree that animals are sentient beings.

### **Meat producers/butchers**

The interviews with meat producers, including both local butchers and large scale slaughterhouses, show that the majority is unaware of animal welfare and development policies. 50 percent of businesses are unregistered, which questions the government's monitoring mechanism. Most businesses produce chicken meat followed by goat. Most producers (82 percent) slaughter the animals themselves. Seven out of ten meat producers transport the animals in specially designed vehicles (mostly pickup trucks with cages).

When it comes to slaughter, close to half of respondents claim they have a designated space for killing animals. In reality this is not the case; instead animals are slaughtered in the vicinity of the shop, in full view of other animals and consumers, with no regards to animal welfare or hygiene. On a more positive note, the majority of meat producers are in favour of scientific slaughterhouses. The interviewees are however concerned about the price of meat produced from such places.



The concept of animal welfare is largely unknown among meat producers. Virtually all meat producers (93 percent) remain uninformed about the Animal Slaughtering and Meat Inspection Act, the main act regulating the standards in the meat industry.

### **Government authorities**

Although 76 percent of bureaucrats claim they incorporate animal welfare issues in livestock related programs, the findings show that most officials are not aware of how this is done. The only adequately disseminated policy appears to be the livestock insurance policy.

According to the officials, 60 percent performs monthly monitoring of livestock farms and meat industries. With quarantine units focusing on the border areas, half of the respondents are unaware of the functionality of these inspections. A relatively high number of officials (16 percent) are uninformed about the Animal Health and Livestock Services Act. Only 28 percent of interviewees believes that meat shops are up to standards.

The respondents agree that a general lack of awareness about policies among stakeholders is the main reason for the weak implementation of good practices. They suggest that training and awareness sessions address this problem.

The survey further shows that government respondents are more inclined towards modern farming methods rather than to traditional farming. They invest in efforts to promote scientific breeding methods through skill oriented trainings and programs and technical assistance.

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## 1. INTRODUCTION

With the development of civilization, technology and an agrarian-based economy, the practice of animal husbandry (breeding and rearing) has changed. In Nepal, animal husbandry has been recognized as an important economic activity since its inception as a nation state. Livestock in Nepal comprises 32 percent of its agricultural Gross Domestic Product (GDP) and about 11.5 percent of the total country GDP (CBS, 2011). According to the Department of Livestock Services, Nepal produces 1.85 million (metric ton) milk, 0.32 million (metric ton) meat and 1200 million (metric tons) eggs yearly. The majority of livestock animals encounter unnatural housing conditions, poor air quality, overuse of antibiotics, improper care and inhumane transportation and slaughtering practices (Pokharel, 2018). In addition to this, animals and birds are slaughtered using traditional methods without following the acts, directives and standard procedures introduced by the Government of Nepal.

This study will contribute towards understanding different kinds of livestock industries, farming methods, quarantine, transportation and slaughtering practices as well as related policies and guidelines. By doing so, the study provides an overview of the status of animal welfare in Nepal.

### 1.1 Scientific Understanding and issues

The history of animal husbandry can be traced back more than 10,000 years when the domestication of, care for and breeding of animals such as dogs, cattle, horses, sheep, goats and pigs got established (Mark, 2010). Livestock husbandry increased with the growth of the human population from 4 million people to the present 7 billion people. Animal husbandry evolved with the domestication of wild animals into human lives and societies. This shift resulted in significant and enduring social changes, based on the responsibility of people for animals, and on potential for social inequalities through ownership (Smith, 2018).

Livestock systems occupy about 30 per cent of the planet's ice-free terrestrial surface area (Gerber, 2006) and are a significant global asset with a value of at least \$1.4 trillion. Livestock contribute 40% of the global value of agricultural output and support the livelihoods and food security of almost a 1.3 billion people (FAO, 2018).

Livestock farming has both positive and negative effects. It serves as one of the biggest food production sectors in the world but is also responsible for significant environmental pollution and climate change. Globally, over 1.7 billion animals are used in livestock production, occupying more than one-fourth of the Earth. Almost one-third of agricultural land is used to produce

animal feed and the livestock sector, including feed production and transportation, accounts for almost 18% of all greenhouse gas emissions worldwide. (FAO, 2010)

Nepal remains a predominantly agrarian economy in which animal husbandry is an important component of the economy in terms of income, employment and equity. About 66 percent of the country's population is involved in agriculture, which accounts for 35 percent of the Gross Domestic Product (GDP). The livestock sector contributes 32 percent to the total agricultural GDP and 11.5 percent to the total country GDP (CBS, 2011). Animal husbandry had played an important role in human food and nutritional security, livelihood, regional balance, gender mainstreaming, and rural poverty alleviation (ILO, 2004).

In Nepal more than 2 million households own cattle, and over 1.4 million households raise chicken. The growth rate of livestock stands at 5.3 percent per annum which is less than that of fishery and cash crop, but its contribution to the overall agricultural GDP is higher (Lakhankar, 2015). The growth rate of buffalo, pigs and fowl is higher compared to cattle, sheep and duck (MoAD, 2011).

In order to support the livestock sector, there are 5 regional program directorates, 5 animal service training centres, 25 quarantine offices and check posts, 12 animal development farms and 6 central labs for animals development (MoLD, 2017).

In Nepal, animal welfare remains an underreported issue. Animal welfare, as defined by the American Veterinary Medical Association, is a human responsibility that encompasses all aspects of animal well-being.. An animal enjoys welfare standards if (as indicated by scientific evidence) it is healthy, comfortable, well-nourished, safe, able to express innate behavior, and if it is not suffering from unpleasant states such as pain, fear, and distress. Animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling and humane slaughter/killing. Animal welfare refers to the state of the animal; the treatment that an animal receives is covered by other terms such as animal care, animal husbandry, and humane treatment. (OIE, 2007).

While animal rights and animal welfare encompass two different concepts and terminologies, their differences have been mentioned as follows:

Rights Vs Animal Welfare		
	The Rights Position	The Welfare Position
Morality	Using animals is morally wrong	Using animals is morally right
Benefits	We should not use animals to benefit ourselves	We can use animals to benefit ourselves
Interests	We should not invariably overrule the interests of animals with human interests	Our interests are always more important than the interests of animals
Pain	We should not inflict pain or death on animals	We should not cause animals 'unnecessary' pain or death
Humane Treatment	We should always treat animals humanely and eliminate the human made causes of animal suffering	We should treat animals as humanely as convenient to us.

(Source: Animal Welfare, 2010)

## 1.2 Objectives of the study

The prime objective of the project is to analyse the livestock industry of Nepal, including breeding, rearing, transportation and slaughter of animals, and the socio-economic and legal environment in which it operates. Specific objectives include:

- To identify the types of industries related to livestock farming (dairy, meat, leather and textile) that exist in Nepal.
- To understand farming methods, including factory farming and systems adopted for various livestock breeding/rearing in Nepal including the current practices of slaughtering and transporting and quarantine.
- To identify policies, regulations, guidelines on the livestock industry in Nepal and to examine the gaps in implementation of these normative and legal documents.
- To identify relevant stakeholders and their opinions on factory farming and humane livestock development

## 2. Research Methodology:

The study uses a mix of quantitative, qualitative and mixed methods, with triangulation as its main approach. The qualitative research method employed a host of rapid participatory research methods such as key informant interviews, focus groups discussions, consultative meetings/workshops and institutional survey. The quantitative research method, on the other hand, included KAP household survey.

Nature of Data	Sources of Data		
	Primary	Instrument	Secondary
Quantitative	Survey among animal husbandry farmers, meat consumers, poultry business entrepreneurs and slaughterhouse operators	Structured survey format to ascertain information on KAP, animal welfare and violence	Census, surveys and baseline surveys
Qualitative	Focus Groups Discussion (FGDs), Rapid Participatory observation, Key Informant Interviews (KIIs), Institutional Survey Consultative meetings and workshops	FGDs, KIIs and case studies conducted through semi-structured questionnaire and checklist/guidelines. Stakeholders/Institutional consultative meetings/discussion with consumers, farmers, meat government officials, Meat Producers/Butchers, District Livestock Offices, donors and industrialists	Planning and program documents of GoN, National Planning Commission, MoALMC and other development partners, Survey reports and grey materials
Triangulation	Analysing livestock industry practices, knowledge and attitude toward animal welfare and hygiene by triangulating both qualitative (through semi	Household/ institutional surveys and consultative meetings/discussions with District Agriculture Development Office, District Livestock Office	- Review of relevant qualitative and quantitative data from survey reports, program documents and other documents emerging during the

	structured questionnaire) and quantitative (through structured questionnaire) data		study process
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Incorporating the above mentioned research methods, the study was conducted in fourteen districts of Nepal: Jhapa, Morang, Saptari, Chitwan, Kathmandu, Kavre, Lalitpur, Kaski, Mustang, Banke, Dang, Rupandehi, Surkhet and Kanchanpur.

### 2.1 Limitation of the study

Although the survey is conducted in three geographical zones of Nepal (Terai, Hills and Mountains) it is limited to fourteen out of 75 districts. Similarly, the survey looks at different species of livestock which further narrows down the sample sizes. Due to the fact that studies such as these are rare in Nepal, the researcher had limited access to prior quality research.

## 3. Policy review

*“The greatness of a nation and its moral progress can be judged by the way its animals are treated.”*

### 3.1 Universal Declaration for Animal Welfare (UDAW)

The Universal Declaration for Animal Welfare (UDAW), authorized by the United Nations, comprises of seven major articles that denote indicators for improving animal welfare. The articles have been agreed and accepted by the member states during the Manila Conference in 2003 and later in 2005 in Costa Rica with amendments.

The UDAW incorporates the following major aspects:

- To recognize animals as ‘sentient beings’ and respecting them,
- To consider the physiological and physical state of animals in relation to their welfare,
- To ensure a basis for the people and the states for improving animal legislation, spreading the notion of animal welfare among all, disseminate the information among the international and national agencies, humanitarian organizations to inspire and create accountability and foster positive change in people’s attitudes towards animals

- To ensure equitable and effective implementation of the policies nationally and internationally irrespective of animals kept for farming, scientific research or those kept under detention.

### 3.2 National acts and regulations

The following section presents the main national policies formulated by the Government of Nepal as well as the international policies and laws related to animal welfare. The first part is a brief overview of various policies at national and international levels targeted towards livestock and their development whereas the second part outlines the major discrepancies between their formulation and implementation.

#### 3.2.1 Muluki Ain

The history of acts and policies related to animal welfare dates back to the formulation and implementation of **Muluki Ain** (the civil code of Nepal) in 1854. The civil code prohibited the killing of animals and hunting fish with the exception of animal sacrifices allowed during certain holidays and 'particular occasions'. The Muluki Ain also prohibited the killing of healthy female animals. The Muluki Ain introduced strict provisions against the killing of cows as "This kingdom is the only kingdom in the world where cows, women and Brahmans may not be killed". With the cow regarded as a sacred symbol of life, killing a cow meant life imprisonment. The Muluki Ain further criminalized inhumane acts against other animals including committing sexual misconduct.

The Muluki Ain has been updated several times. In 2017 it was replaced by the Muluki Criminal Code, which acknowledges animal welfare and criminalizes animal abuse. It prohibits the beating or striking of any animal or feeding it intoxicated food. It also stipulates that animals cannot be compelled to carry heavy loads or run faster than its normal capacity. Animals that are sick or injured are not allowed to work. Abandoning old or sick animals and publicly killing animals has become illegal too. Any person found guilty of these crimes can be subjected to three month's imprisonment or NPR 5,000 fine or both. Those harming or killing cows and oxen receive a NPR 50,000 fine and up to three years imprisonment.

#### 3.2.2. Animal Health and Livestock Services Act 1999

Policies regarding animal welfare have been formulated explicitly in the year 1999 with the commencement of the Animal Livestock Services Act. The act facilitates the establishment of quarantine (temporary or permanent) check-posts and places as well as the appointment of quarantine officers with specific duties and obligations to inspect and restrict/allow the animals



or their products for consumption and transportation. Section 3, 4 and 5 state the establishment of quarantine check-posts, construction of quarantine places and appointment of quarantine officer respectively. Section 6 deals with keeping animals in quarantine for a specific period of time in order to inspect and examine as well as arrangements for their well-being, food and security, transportation, auction and destruction and funeral process in the event of death and outbreaks/epidemics.

Under animal improvement, the act specifically focuses on protecting animal from extinction and protection of breeds. It is mandatory to issue a notice when a male animal is castrated. Sections 17 and 19 prescribe the issuance of a recommendation letter and license during establishment and export/import.

In the course of breaching the laws, several provisions are in place to issue penalties and fines. For instance, in the case of breaching section 9 by avoiding quarantine inspection during imports, a fine of NPR.25.000 can be issued. Similarly, when animals or animal products are found to be infested with contagious disease, the fine is NPR.50.000. When violating section 10 and failing to restrict unsuitable imported animals or animal products' up to NPR 10.000 is fined.

The Animal Livestock Services Act 1999 secures the role of GoN as a 'plaintiff' in several cases. This highlights the role of Government as a regulator as well as a facilitator.

The final chapter focuses on prescribing and standardizing roles and duties of veterinary officers, starting with timely appointments and their designation in inspecting the quality of veterinary drugs and several biological products. Similarly, the power delegations by the Office Chief, Veterinary Doctor/Inspector, Quarantine Officer to subordinates have been stated briefly.

Section 27 further states the role of the government in preventing animal cruelty stating that "The GoN may constitute a committee for the prevention of cruelty to animals by a notification published in Nepal Gazette and the functions, duties and powers of such committee shall be specified in such notification."

### 3.2.3 Animal Slaughterhouse and Meat Inspection Act 1999

The Animal Slaughterhouse and Meat Inspection Act 1999 is another important milestone in the development of animal welfare policies in Nepal. The act specifically outlines arrangements to set appropriate standards in the meat industry and ensures a control mechanism to prevent adulterations and low quality of meat.

Section 3 of the act addresses the need and procedures of issuing licenses for meat sellers whereas Section 5 emphasizes the establishment and operation of a slaughterhouse after receiving a notification and permission by the GoN. Realizing the importance of meat inspection, Sections 6 and 7 focus on the appointment of the meat inspector and supervisor for proper management of slaughterhouses. The Act stipulates the supervision of meat inspectors by the GoN as well as the functions, duties and power prescribed accordingly. In this connection, the power delegation and authority to enter a slaughterhouse or butcher shop at any time for inspection has been mentioned in Section 15 of the act.

Similarly, Section 8 mentions the procedure of ante-mortem examination of animals before slaughter and specifies the role of the meat supervisor to determine whether the animal is fit for slaughter.

Section 10 states the duty of a meat inspector to examine the meat of slaughtered animals, and identify the suitability of meat consumption. Section 11 includes the prohibition of selling meat from dead animals and Section 13 bans adulterated meat.

Moreover, penalties for breaching the law are stated in Section 17 of the act. The role of the GoN as a 'plaintiff' has been recognized under Section 19.

### 3.2.4 Nepal Veterinary Council Act 1998

The Nepal Veterinary Council Act is specifically targeted to veterinary practitioners all over the nation in order to recognize veterinary as an important profession and indispensable for animal welfare. In this connection, Section 9 describes the main roles and duties of the members of the Veterinary Council. These comprise of formulation major plans, policies and programs as well as their implementation in order to deliver service and recognize veterinary as a dignified and systematic profession. It further mentions the formulating of a code of conduct for the veterinary profession and the establishment of veterinary education.

Chapter 3 addresses the need for registration by veterinary practitioners before carrying out their profession.

Section 16 lists three categories of veterinary practitioners, defined as per qualifications and work experience.

Category	Qualifications
A	Doctoral PhD in veterinary science with at least seven years' experience. Masters in the related field with at least ten years' experience. Bachelor degree with at least fifteen years' experience, working as a first class gazette or equivalent.
B	Doctoral PhD in veterinary science with at least five years' experience. Masters in veterinary science with at least seven years' experience. Bachelors in veterinary science with at least ten years' experience, working as a first class gazette or equivalent.
C	Veterinarian holding at least a Bachelor degree from a recognized university

### 3.2.5. Animal Health and Livestock Services Rules 2000

Animal Health and Livestock Services Rules are a conferred version of Section 33 of the Animal Health and Livestock Services Act.

In Section 3, the rules specify the locations for quarantine check-posts (International Airport and points of transportation of animals) along with provisions ranging from separate entry and exit gates and loading and unloading of animals in vehicles.

Under Section 4 lists the process of constructing a quarantine check-post by submitting an application and a work plan to the Department and finally to GoN. Separate quarantine locations require a mutual consent between importers and the Department.

Section 5 lists the terms and conditions for constructing a quarantine unit. This requires a land area of at least 6500 square meters. Separate arrangements must be made to prevent contact between animals that arrive at varied times, safe drinking water, food, ventilation and sewerage, storing and keeping animals and animal products appropriately.

Section 7 states that conducting a physical, clinical and laboratory examination is mandatory for animals. Similarly, for animal products, the examining process begins with a tally between the existing situation and the stipulated physical conditions by the exporting country. The process further proceeds with examining the accuracy of weight, packing labeling and sealing.

The issuance of a quarantine certificate has been mentioned in Section 10, including various formats customized according to different animals.

### 3.2.6. Animal Transport Standard 2007

The Animal Transportation Standard covers a vast amount of welfare issues during transportation; it sets standards for various methods of animal transportation – walking or transportation by land and air. While the Transportation Standard is for all animals and there are some general guidelines, it has specific transportation conditions for different species of animals such as specifics on space allocation in vehicles, rest periods, feeding times and travel during pregnancy (or with young offspring). In respect to walking the animals to their destination, there are specific provisions on how far and how many hours each animal may walk. Animals with specific standards include cows, oxen, buffalos, pigs and goats.

### 3.2.7. Animal Welfare Directive 2016

The Animal Welfare Directive 2016 has been issued by the Ministry of Livestock Development pursuing rule 22(A) of the Animal Health and Livestock Services Act 1999.

The Act in Section 4 of Chapter 2 lists the Five Freedoms as its main provisions:

#### **Provisions of animal welfare:**

1. Freedom from hunger, thirst and malnutrition
2. Freedom from fear and distress
3. Freedom from physical and thermal discomfort
4. Freedom from pain, injury and disease
5. Freedom to express normal patterns of behavior

Section 5 highlights safety measures that can be taken to ensure the protection of working animals from cruelty. These include a minimum working age, gender, bodily conditions (healthy or obese), and being free from injuries, disabilities and illnesses of any kind. Additionally, the animals should not be pregnant or nursing.

Section 6 addresses the matter of harnessing and farrier. The directive prescribes fitting harnesses devoid of pointed, sharp or edgy objects that safeguard the animals from injury or wounds, distributing weights equally on both sides, and timely examination of harnesses to prevent any breakages or tearing. In regards to the workloads, Section 8 specifies that the maximum weight carried by the animal should not be greater than 40% of their body weight and that work should be stopped if / when the animals start stumbling or is unable to continue.

Section 7 stipulates that extreme climate and temperature must be prevented, and the working hours should not exceed more than eight hours a day.

Section 9 addresses proper shelter management by ensuring a clean, dry and safe environment, separation of male and female animals, sufficient space for tethered animals and

maintaining appropriate temperatures to prevent respiratory problems, shortness of breath and / or nasal swelling.

Section 10 and 11 outlines the provisions for adequate food and safe drinking water for the animals as well as ways to manage them when resting. In addition, it mentions a maximum interval of three hours in between each feeding time. Section 11 specific measures to be adopted for the safety of tethered animals to prevent pain or damage. Furthermore, pregnant animals must not be tied and those tethered must be closely observed.

Chapter 3 lists different types of actions causing animal cruelty which includes using painful materials for controlling animals, causing pain, discomfort or wounds, tying or breaking the tail, killing the newborn, causing injury using sticks, denying treatment of sick animals, illegal castration and abandonment. Acts that do not constitute animal cruelty include removal of horns, regular health check-ups, treatment or surgery by registered units and the euthanizing of animals by a veterinary or responsible authority, in cases of incurable diseases and suffering to protect the animal and public health.

Sections 18 – 23 contains lists of requirements to be adhered to by various authorized bodies (animal related service providers, government institutions, local government authorities, veterinary officers, non-governmental organizations, international organizations, animal owners and handlers.)

Furthermore, the animal measurement index in the last chapter encompasses the indicators of animal welfare that includes annual report of 'Animal Welfare Inspection' and a comparative study of 'Animal Welfare Indicators' prepared by the District Livestock service office.

### 3.3 Laws and their discrepancies

The introduction of legal mechanisms does not guarantee the actual improvement of animal welfare conditions. In Nepal, the various acts, laws and policies generally fail to be implemented. The acts neither receive significant recognition nor are adequately formulated, financially supported and implemented at different levels. The responsible stakeholders, including policy implementers, lack awareness of the legal provisions. As a result, there exists a substantial gap in legislation, regulation and enforcement. These major discrepancies have been mentioned below briefly:

#	Legal instrument	Provision	Discrepancy
1.	Animal Health and Livestock Services Act 1999	Establishment of quarantine (temporary or permanent) check posts and places as well as appointment of quarantine officer with their specific duties and obligations to inspect and restrict/allow the animals or their products for consumption and transportation from one place to other.	Quarantine posts have been established in the border areas but regular, proper checkups fail to be implemented in other parts of the country
	Animal Slaughterhouse and Meat Inspection Act 1999	Sets appropriate standards in the meat industry and ensures a control mechanism to prevent adulterations and low quality of meat.	Nepal continues to lack professional, humane slaughterhouses Transport of animals continues to lack required standards
2.	Constitution of Nepal 2015	Addresses consumer rights to obtain quality goods and services, and the right to obtain compensation according to law in case of substandard goods.	Consumers lack access to healthy and hygienic meat and compensation. The Constitution fails to address provisions for animal welfare in the Federal set up.

3.	Animal Welfare Directive 2016	Covers animal welfare and provisions during working hours, inhumane acts prevention, broader aspects of animals and their correct treatment, measures to be followed against animal cruelty to ensure their safety, well-being and justice during activities performed by them.	Farmers and animal handlers lack awareness about the legal provisions. Authorities fail to monitor the treatment of working animals.
4.	Nepal Veterinary Council Act 1999	Veterinary Council Act specifies the standards, qualifications, and other essentials in order to establish veterinary sector as an important and recognized profession.	The Act lacks precautionary and preventive measures required for the inclusion of several aspects of animal welfare as a veterinarian

### 3.4 Types of data of the survey

Considering the nature of the survey, different types of respondents were chosen and different types of tools used to extract specific types of data from major stakeholders of the livestock sector. The stakeholders included animal husbandry farmers, consumers, meat producers/butchers, transporters, government authorities, police personnel and donor agencies. The following table shows the types of respondents and respective tools used during the survey.

*Table 1 Types of respondents and the tools*

Types of respondents	Consumer	Producer		Transporter	Police	Govt. Authorities	Donor Agencies
Tools used		Husbandry	Meat/Butcher				
Interview Schedule (IS)							
Key Informant Interview (KII)							
Focus Group							

Discussion (FGD)							
Observation form							
Case Studies							

A major part of the data was collection through Interview Schedule (IS) with Consumers (388), Animal Husbandry Farmers (255), Meat Producers/Butchers (102) and Government Authorities (25). A total of 770 Interview Schedule were collected throughout the survey. Additionally, qualitative data was collected through FGD and KII. A total of 25 FGDs were conducted with Consumers totaling 160 respondents while 25 FGDs took place with Animal Husbandry Farmers with 195 respondents in total. A total of 78 KIIs were conducted with Transporters, Police, Government Authorities and Donor Agencies.

Additionally observation forms were filled up by enumerators and case studies were prepared where deemed necessary.

In total, **1280** respondents were reached via Interview Schedules, KII, FGD, Case Studies and Observation.

*Table 2 Total number of data collections through various tools*

S.N	Type of respondents	Interview Schedule	KII	FGD	Case Studies	Observation Forms	Total
1.	Consumers	388		160			<b>548</b>
2.	Animal Husbandry/Farmers	255		195	13	12	<b>475</b>
3.	Meat Producers	102			14	14	<b>130</b>
4.	Government Authorities	25	33				<b>58</b>
5.	Transporters		20		13	11	<b>44</b>
6.	Police		23				<b>23</b>
7.	Donor Agencies		2				<b>2</b>
	<b>Total</b>	<b>770</b>	<b>78</b>	<b>355</b>	<b>40</b>	<b>37</b>	<b>1280</b>



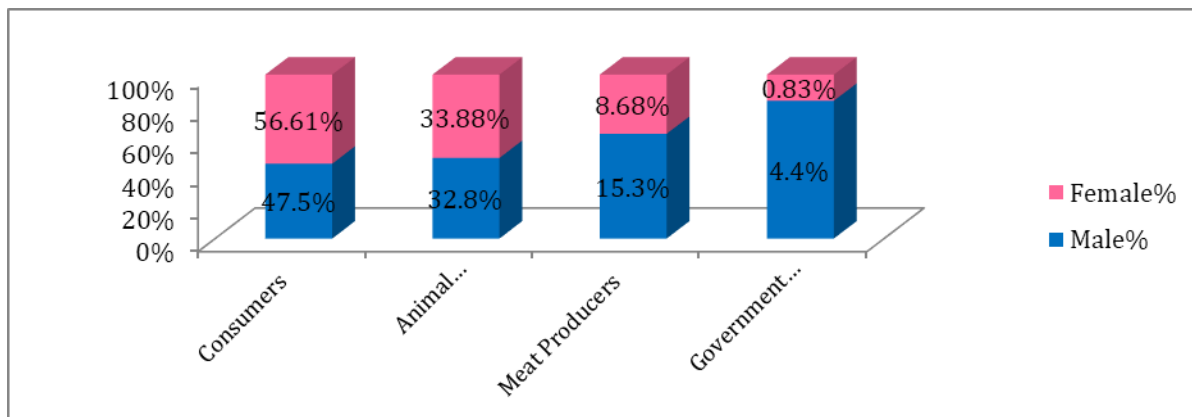
## 4 Findings of the Survey

### 4.1 Interview Schedule – Demographic Analysis

A total of 770 respondents were surveyed out of which the majority were male (528). The largest group of respondents were Consumers, totaling 388, and the least number of respondents were Government Authorities, who work in the field of livestock development, health and welfare.

*Table 3 Types of respondents by sex*

Type of respondents	Male	Female	Total
Consumers	251	137	388
Animal Husbandry/Farmers	173	82	255
Meat Producers	81	21	102
Government Authorities	23	2	25
Total	528	242	770



*Figure 1 Percentage distribution of various types of respondents by sex*

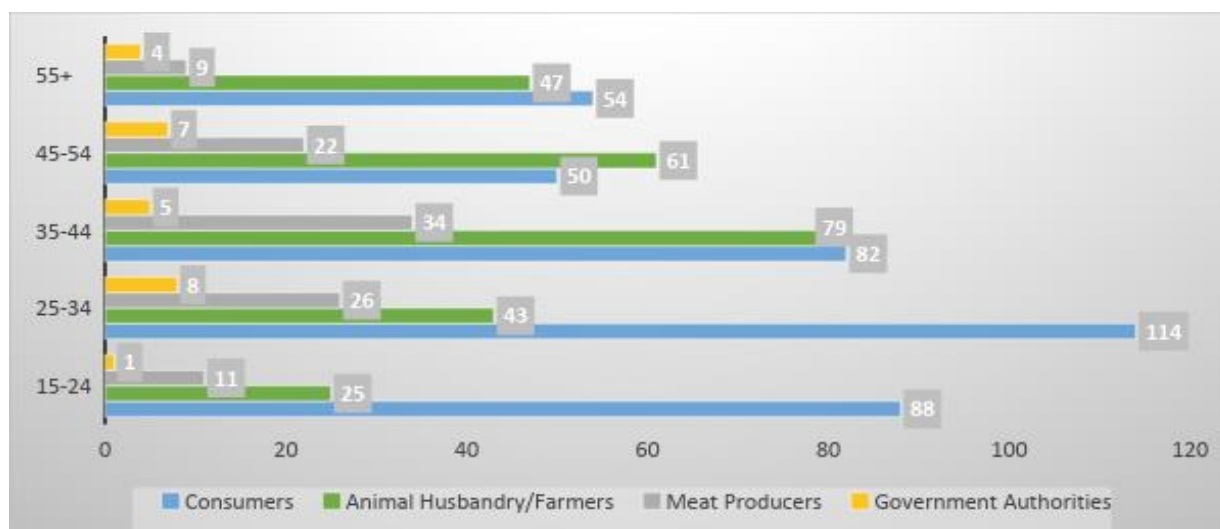


Figure 2 Distribution of various types of respondents by age

The age distribution of IS respondents shows that the majority of them were from 35-44 age group followed by the 25-34 age group. The number of 55+ respondents is the smallest (114).

Table 4 Distribution of respondents by district

S. N	Province No.	District	Consumers	Animal Husbandry/Farmers	Meat Producers	Government Authorities	Total
1	1	Jhapa	29	20	7	2	58
2	1	Morang	29	21	8	2	60
3	2	Saptari	30	21	10	2	63
4	3	Chitwan	30	19	8	2	59
5	3	Kathmandu	16	10	4	1	31
6	3	Kavre	30	14	7	1	52
7	3	Lalitpur	14	10	4	1	29
8	4	Kaski	30	20	6	2	58
9	4	Mustang	30	20	8	2	60
10	5	Banke	30	20	8	2	60
11	5	Dang	29	19	8	2	58
12	5	Rupandehi	31	20	8	2	61
13	6	Surkhet	30	20	8	2	60
14	7	Kanchanpur	30	21	8	2	61
	Total		388	255	102	25	770

The survey covered a total of 14 districts from all 7 Provinces of Nepal, including all geographical regions (Terai, Hill, Mountain). The table below shows the distribution of IS respondents according to geographical regions:

*Table 5 Respondent distribution by ecological zone*

S.N	Geography	Consumers	Animal Husbandry/Farmers	Meat Producers	Government Authorities	Total
1	Mountain	30	20	8	2	<b>60</b>
2	Hill	120	74	29	7	<b>230</b>
3	Terai	238	161	65	16	<b>480</b>
	<b>Total</b>	<b>388</b>	<b>255</b>	<b>102</b>	<b>25</b>	<b>770</b>

## 4.2 Qualitative tools

Apart from Interview Schedules, different qualitative tools were used for different types of respondents. The qualitative data were collected in line with the IS locations in all 7 Provinces with a primary focus on Kathmandu (Central Offices) for Donor Agencies and Central Level Government Authorities.

*Table 6 Different types of participants in qualitative discussions*

S. N	Method	Consumers	Animal Husbandry/Farmers	Meat Producers	Government Authorities	Transporter	Police	Donor Agencies	Total
1	KII				33	20	23	2	<b>78</b>
2	FGD	160	195						<b>355</b>
3	Case Study		13	14		13			<b>40</b>
4	Observation		12	14		11			<b>37</b>
	Total								<b>510</b>

## 4.3 Data analysis

### 4.3.1 Consumer

Consumers represent the main group of respondents in the research. In the analysis their views on breeding, transportation, rearing of animals, animal welfare issues as well as consumption behavior, consumption patterns and situation of the consumers are presented.

A total of 251 males and 137 females were interviewed, representing 64.69 percent and 35.30 percent respectively.

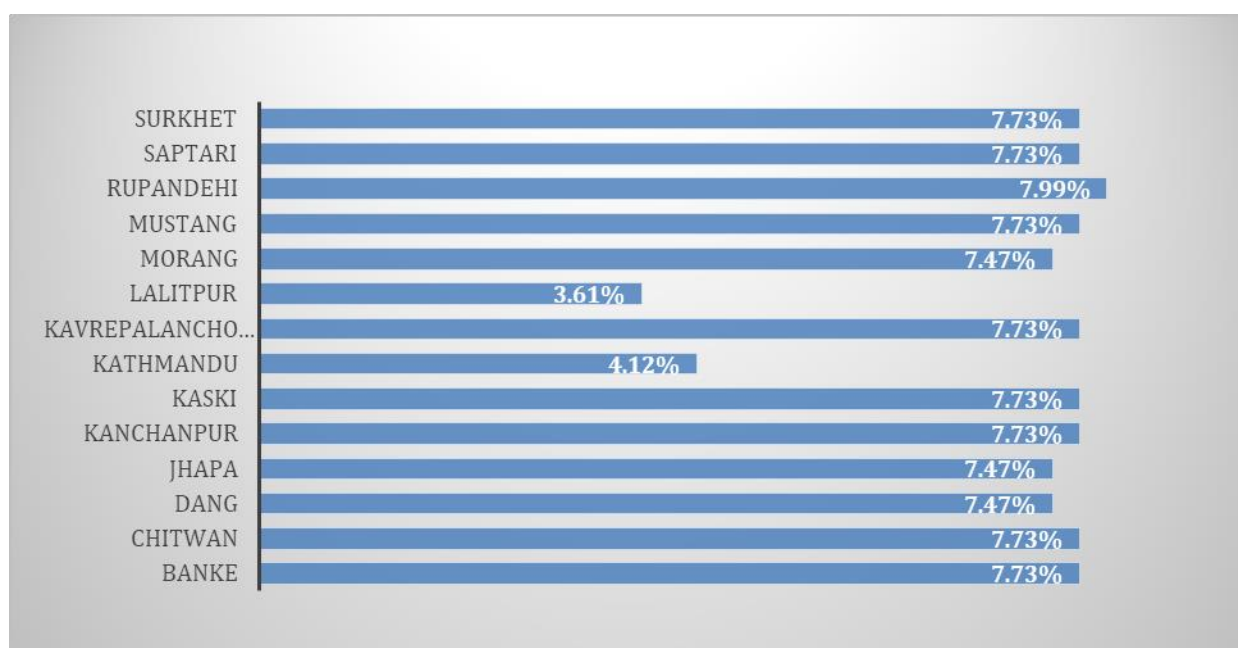
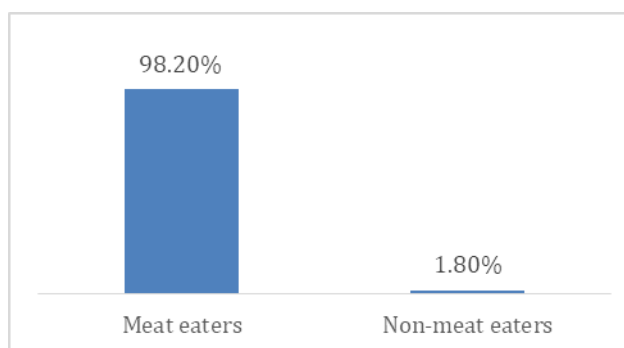


Figure 3 Percentage distribution of consumers by district

Consumer data were collected from 14 districts with an almost equal distribution of respondents' numbers in each district. The highest number of respondents was selected in Rupandehi district and the lowest in Lalitpur. In order to generate comprehensive findings, consumers from heterogeneous groups of people representing various caste, gender and culture were selected.

Among the 388 consumers who were surveyed, almost all consume meat while only 1.8 percent are vegetarians. The main reason for eating meat is identified as a 'Cultural and/or Religious Need'. Almost 63 percent of consumers argue that meat is



an important part of their diet because it is associated with their cultural and religious practices. Different religious/ethnic groups have different traditions related to the killing of animals and consumption of meat. Only 7.47 percent of the consumers eat meat because they like the taste while almost one third of consumers believes that meat is not really important for their diet.

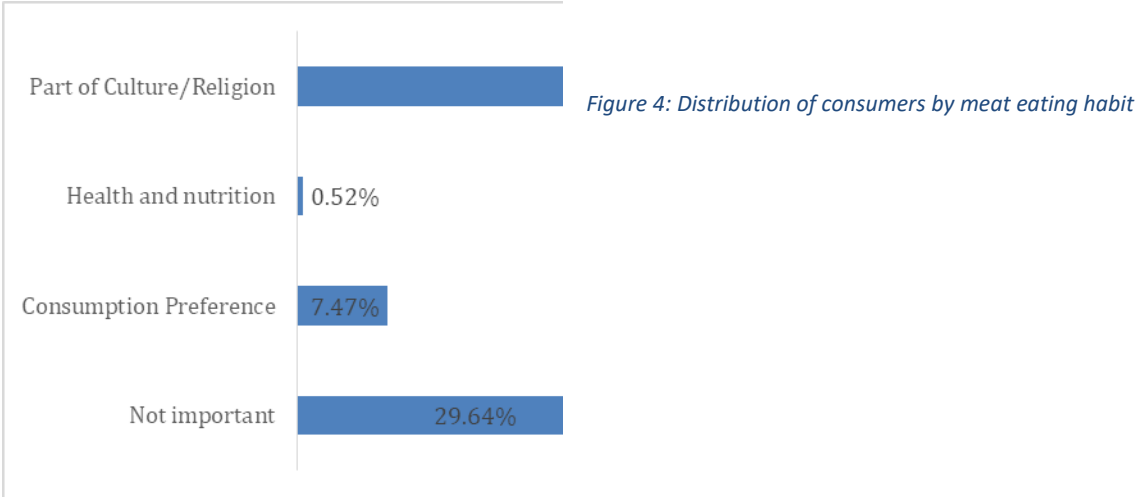


Figure 5 Consumers’ reasons for considering meat as an important part of diet

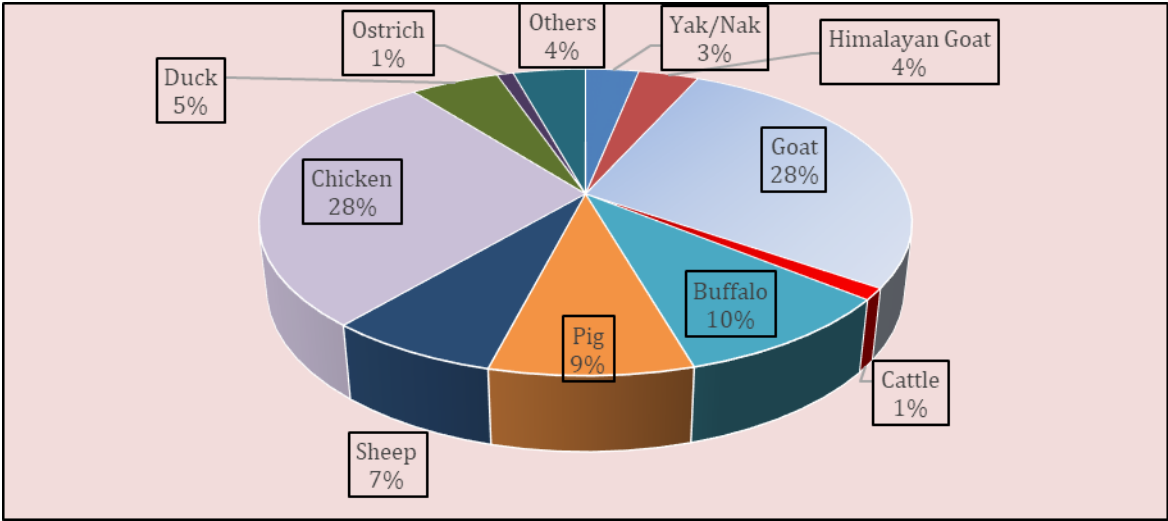
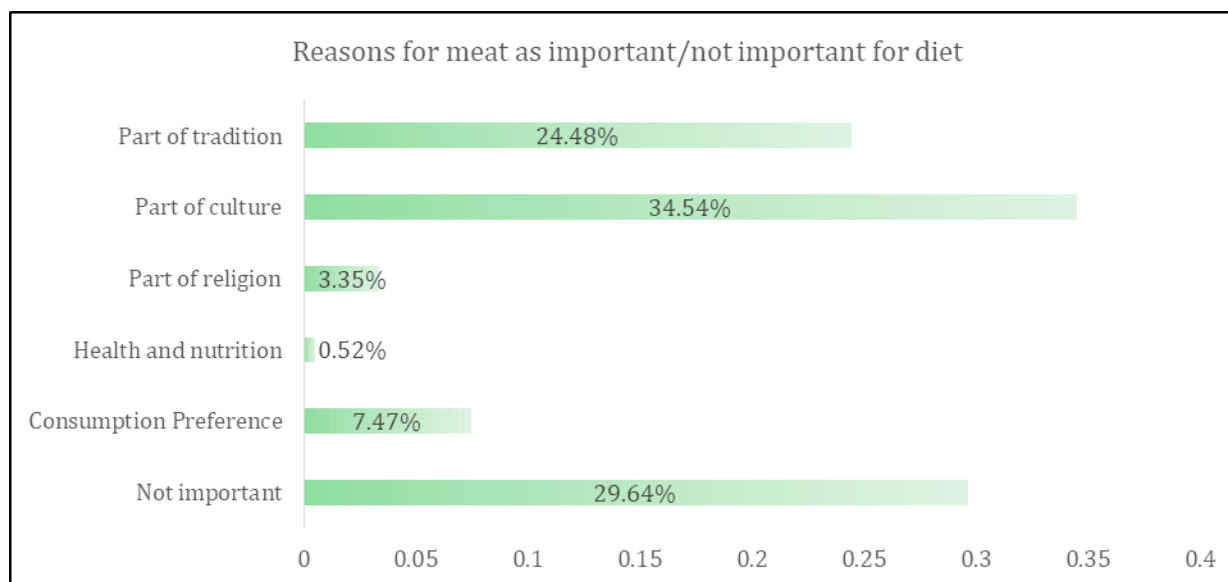


Figure 6 Types of animals consumed by consumers

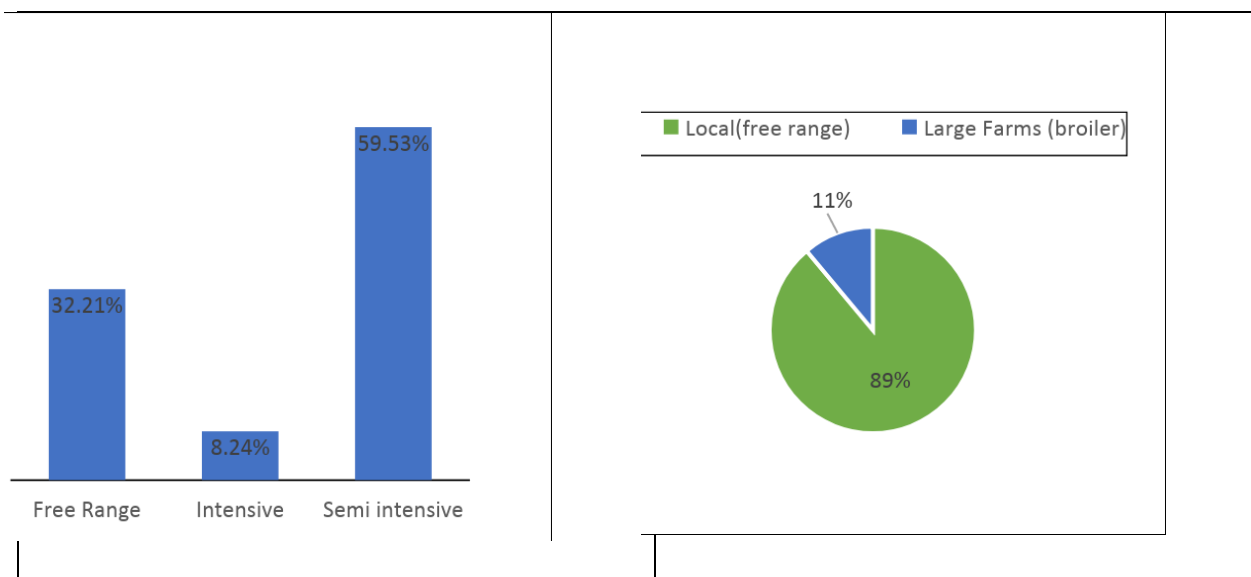
Goat and chicken were among the most popular animals to be consumed<sup>1</sup>, with 28 percent of interviewees eating goat, 28 percent chicken and 10 percent buffalo. Less popular are pork (9 percent) and sheep (7 percent). Duck, Himalayan goat, Yak/Nak, Others, Ostrich and Cattle are consumed by 5, 4, 3, 4 and 1 percent respectively. Goat and chicken is enjoyed mostly by the interviewees irrespective of age and gender.



*Figure 7 Consumers' views about the importance of meat*

Of the total 388 respondents, 271 state that meat is an important part of their diet whereas the remaining 117 consider meat as less an important part of their diet. The majority of interviewees (six out of ten) eat meat for different cultural and religious reasons: meat is considered a part of culture by 34.54 percent, a part of tradition by 24.48 percent and a part of religion by 3.35 percent (totalling 62.37 percent). Only 7.47 percent of respondents eats meat because it is their consumption preference whereas and a mere 0.52 percent considers health and nutrition important for meat consumption. Less than one in three interviewees (29.64 percent) considers meat an important part of their diet.

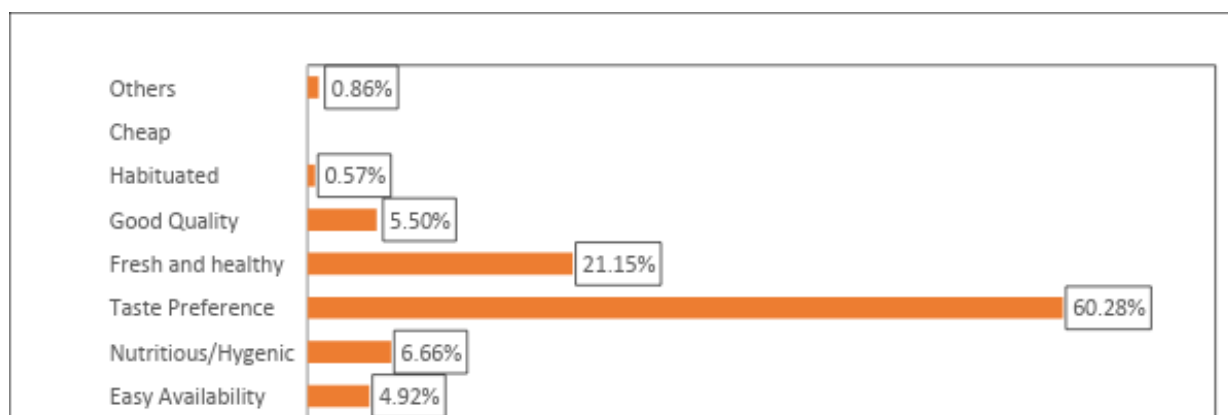
<sup>1</sup> One of the reasons for this is that goat and chicken meat can be eaten by all castes or religion whereas pigs, buffalo, yak, etc. are generally by people from specific caste groups.



*Figure 8 Types of farming according to system and local/large farms*

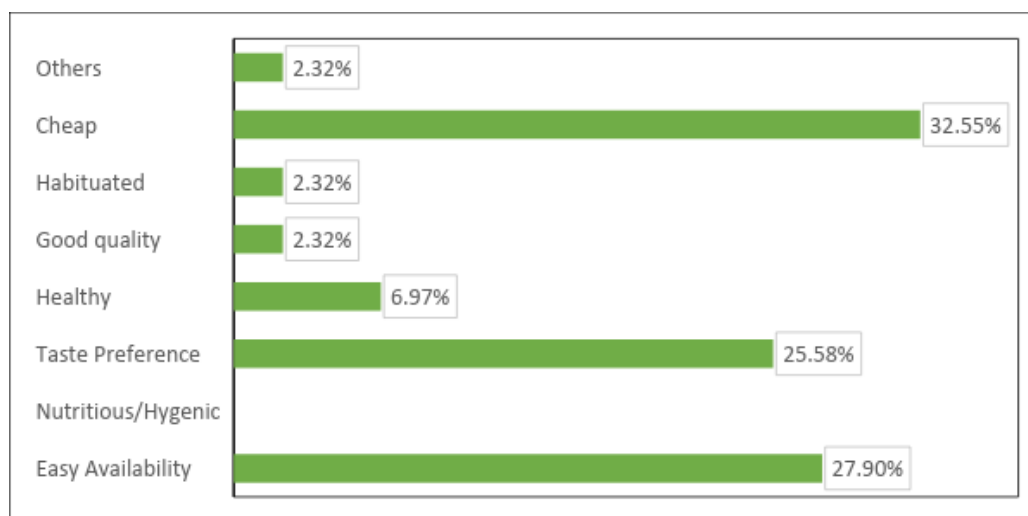
The main types of farming that the consumers are aware of include free range (32.21 percent) , intensive (8.24 percent) and semi-intensive (59.53 percent). When asked what type of farming they prefer, 89 percent votes for free range while 11 percent are inclined towards large farms. From FDGs with farmers it is learned that producers generally use factory produced feed for chicken and naturally produced grass and fodder for animals like goat, cow and buffalo. Pigs are usually fed a combination of factory produced feed along with organic waste. In the Hill and Terai region animals (with the exception of chicken) are reared in semi-intensive farms whereas in the Himalayan region animals enjoy free range system.

When asked about the reasons for choosing free range farming, the majority of consumers (60.28 percent) mentions taste preference as the primary reason. This is followed by the argument that free range meat is fresh and healthy (21.15 percent), nutritious and hygienic (6.66 percent), of good quality (5.50 percent), easily available (4.92 percent) and out of habit (0.57 percent). A small group (0.86 percent) has never tried meat from intensive farms or does not trust it.



*Figure 9 Reasons for preferring meat from free range farms*

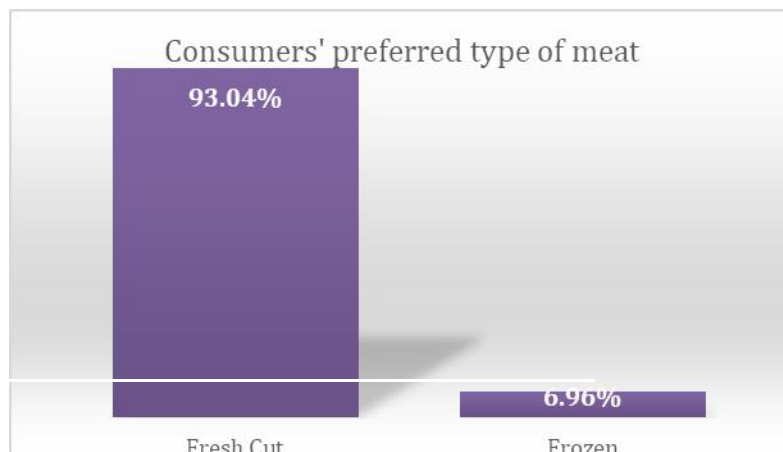
Among those who prefer meat from intensive farms, one in three (32.55 percent) do so because it is cheaper, 27.90 percent because the meat is more easily available compared to free range products, 25.58 percent for its taste and 6.97 percent for health reasons. The remaining 2.32 percent argues that meat from large farms is of good quality, among other reasons.



*Figure 10 Reasons for preferring meat from large, intensive farms*

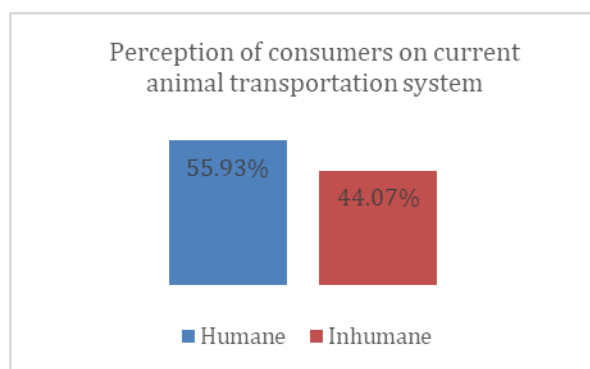
The findings show that consumers prefer 'freshly cut' meat instead of frozen meat. The respondents consider frozen meat as stale and hard to cook and fresh-cut meat as healthier with more nutrients and tastier. Observation learned that in reality even butchers are confused about the kinds of meat kept in their fridge the differences between the meat kept in fridge. One of the respondents in an FGD conducted in Panchkhal Municipality, Kavre, argued that frozen meat is a new concept in Nepal and has a lot of health benefits compared to the meat from random slaughterhouses of Nepal which do not maintain precautions and hygienic standards.





The discussions show that only a few people are aware of the concept of frozen meat, which is why they prefer meat from animals slaughtered daily in local shops. Although fresh meat is still the number one choice for most Nepalese, the trend seems to be shifting towards frozen meat

products in urban areas. Most still believe that fresh meat is healthier and tastier than frozen meat but they also agree that freezing the meat can eliminate bacteria.



The researchers were surprised to find that most consumers consider the current transportation system of livestock humane. This shows a general lack of public awareness regarding animal welfare and humane treatment for animals.

Similarly, close to half (46.65 percent) of interviewees is unaware of quarantine<sup>2</sup> provisions. This is definitely an area for improvement.

At the same time FGD participants are aware of the poor transportation system featuring outdated, overloaded vehicles and the fact that buffaloes are tied from their tail and nose. People transport their farm animals using mini truck, public vehicles or by walking in hilly region and motorcycle or bicycle in Terai regions.

<sup>2</sup> There are a total of eight quarantine offices in Nepal which check the clearance documents of transported animals. The quarantine posts do not check the animals.



Photo 4. 1 Situation of buffalo transportation



Photo 4. 2 Situation of chicken transportation

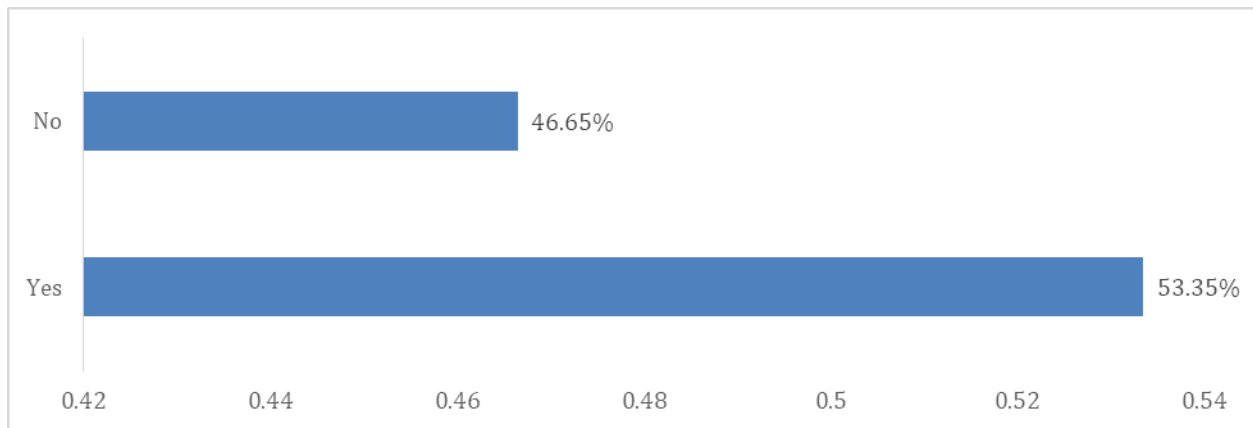
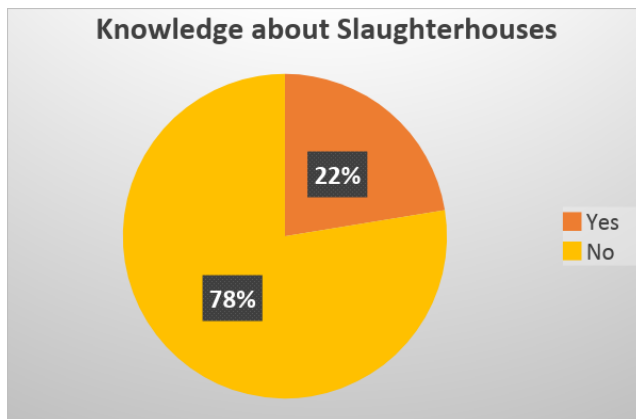


Figure 13 Knowledge about quarantine provisions



Knowledge of the existence of slaughterhouses is important for consumers to make healthy choices of meat and considering animal welfare. A relatively high number of interviewees, 78 percent, is unaware of the existence of slaughterhouses.

Figure 14 Knowledge about slaughterhouse

When those who know about slaughterhouses were asked if they are hygienic or not, only 9.02 percent responded with a yes whereas 7.22 percent responded with a no. The remaining 83.76 percent said they are unaware of the actual situation of slaughterhouses. This shows a general lack of trust in the concept of slaughterhouses in Nepal.

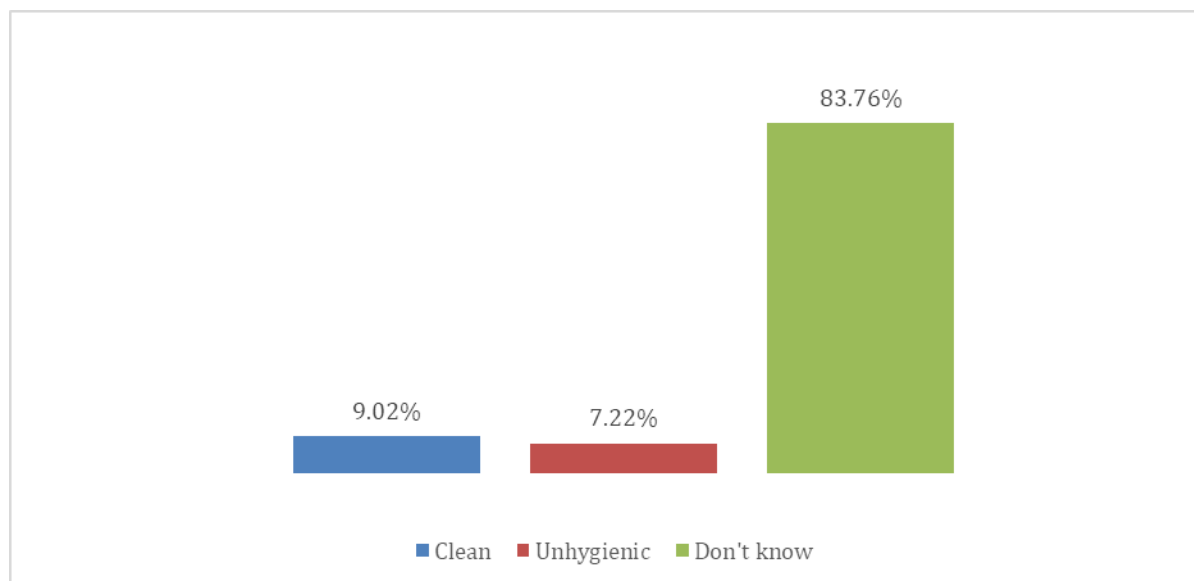


Figure 15 Perception about cleanliness of slaughterhouse

When asked whether animal slaughtering is humane or not, only 1.80 percent of respondents said it is humane, whereas 11.08 percent responded with a no and 87.11 percent said they are not sure. Consumers appear to distrust the present ways of animal slaughter in Nepal. .

A little more than half of interviewees (51.28 percent) practices animal slaughter at home. It is clear that in today's Nepal the slaughter of animals increasingly becomes a job carried out by butchers and meat producers.

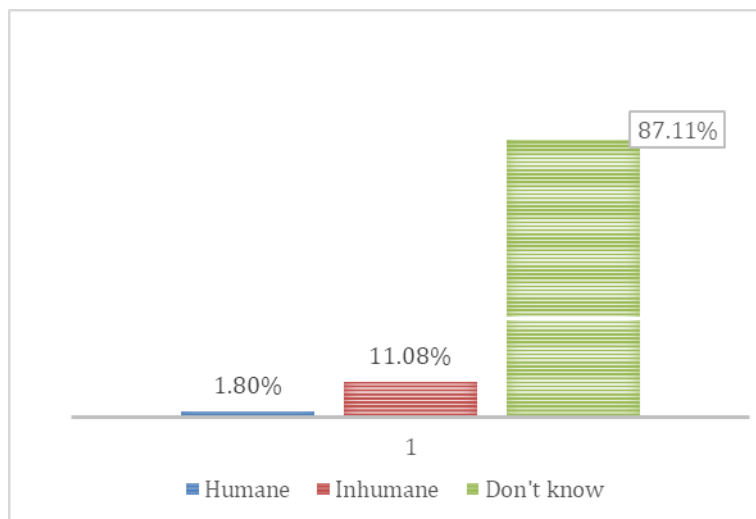
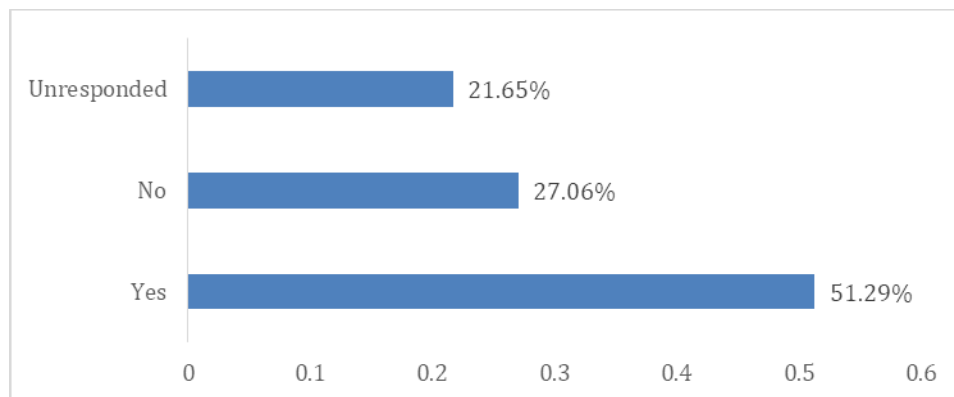
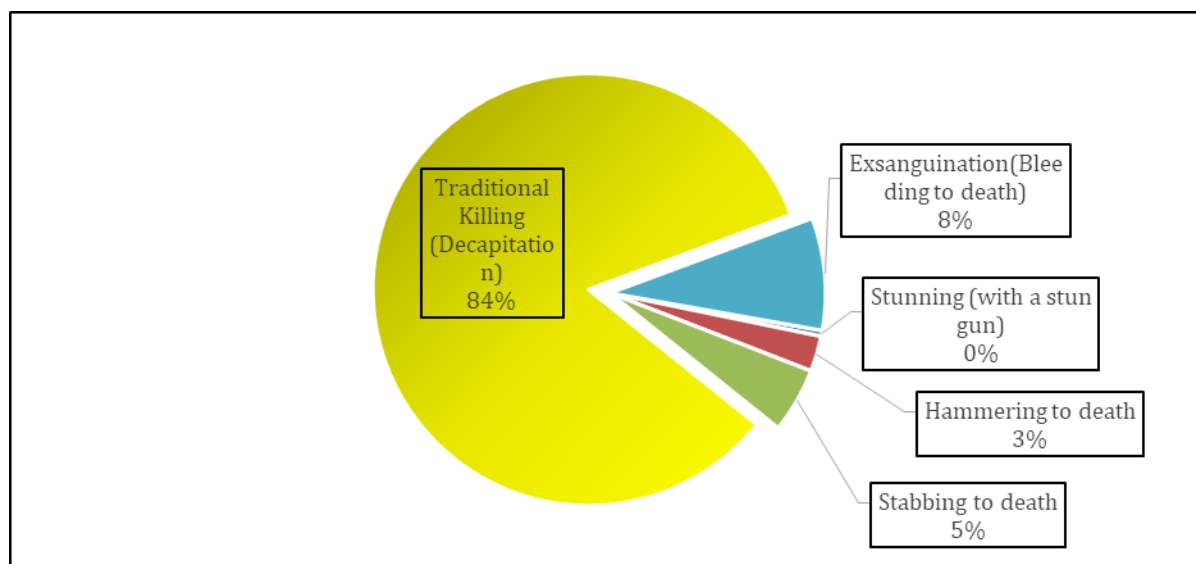


Figure 1 Perception about animal slaughter methods



*Figure 17 Consumers' slaughter practices at home*



Among the methods of slaughter practices at home are traditional killing (decapitation), stunning (with a stun gun), hammering to death, stabbing to death and exsanguination (bleeding to death). The vast majority of consumers (84 percent) prefers traditional killing (decapitation).

*Figure 18 Methods of slaughtering*

Killing animals in the name of religion and culture<sup>3</sup> is a common practice in Nepalese society. Animals are ritually slaughtered to appease deities, to fulfill wishes and grants, to celebrate certain occasions and festivals as well as to simply continue ancient traditions. During this research we asked consumers whether it is acceptable to slaughter animals in the name of religion and culture. The majority of people (35.05 percent) argue that animal sacrifice is a part

<sup>3</sup> Many religious/cultural festivals in Nepal include rituals that involved animal sacrifice

of their culture/tradition whereas 29.12 percent consider it inhumane. One in five interviewees (19.07 percent) consider animal sacrifice irreligious and an example of immoral behavior. A small percentage (5.15 percent) argues that animals are living beings and should be exempted from slaughtering and 6.44 percent of respondents consider animals as sentient beings that have feelings and sense emotions and should not be slaughtered. . Likewise 4.30 percent stated that religious slaughter is a form of animal cruel. Only 0.25 percent feels that animal sacrifice is not good yet a cultural or religious necessity.

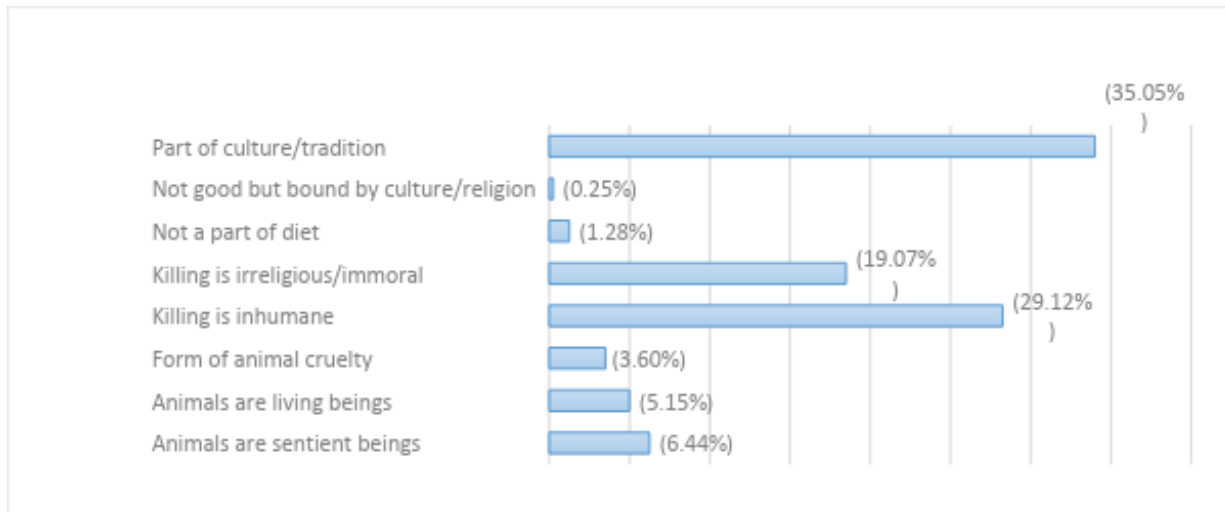


Figure 19 Opinions about animal sacrifice

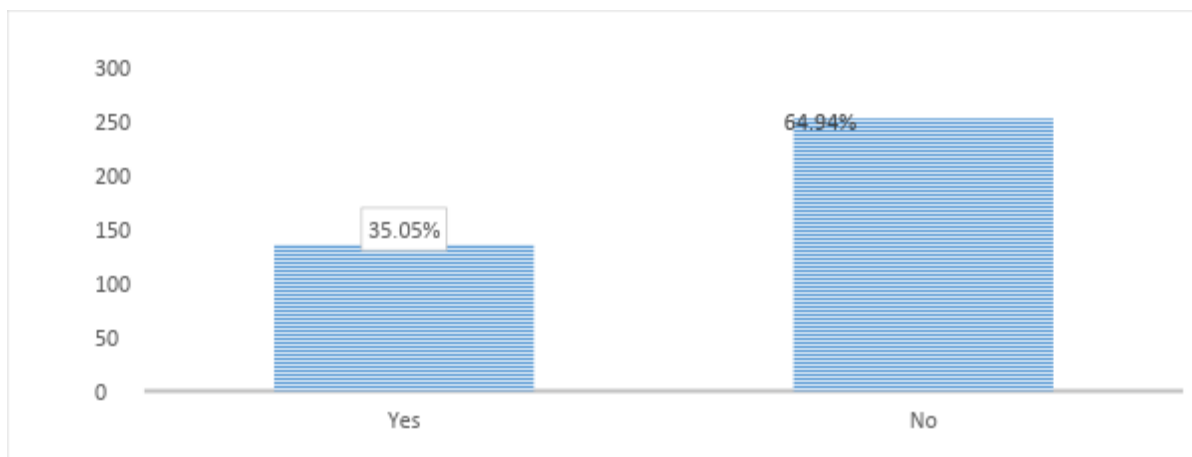
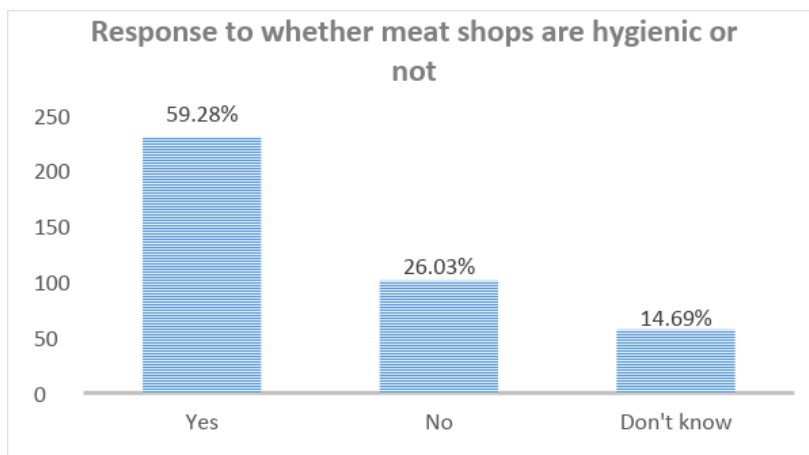


Figure 20 Response to whether animal slaughtering in the name of religion is good or not



*Figure 2 Perception of consumers on hygienic situation of meat shops*

In response to the question whether meat shops are hygienic or not, the majority (59.27 percent) stated that meat shops are hygienic whereas 26.03 percent considers meat shops as unhygienic. A total of 14.69 percent of interviewees said they do not know.

The outcome suggests that consumers are generally unaware of health and hygiene issues related to meat. With most people being brought up in a culture where animals are slaughtered in public places, with little to no attention to health and hygiene, many interviewees believe that by washing the meat carefully, bacteria, parasites, worms and diseases are removed. Consumers tend to be unaware of the different zoonotic diseases present in Nepal and the haphazard use of antibiotics in the meat industry.

### **People's perception and situation of meat shop**



The two images above show examples of unhygienic meat shops. The Janata Meat Shop in Kholpur, Banke District, has been in operation for the past twenty year and sells 50-60 kg meat per day.

Examples of shortcomings:

- Absence of slaughtering devices
- Meat sold in open, non-refrigerated place
- Use of dirty polluted water during slaughtering and cleaning
- Bad smell
- Absence of aprons and hygienic clothes

Although meat acts as a source of protein and other nutrients, it pose a significant health risk when not produced correctly. Awareness among consumers and meat producers about the importance of proper slaughtering, storage and display facilities and methods is crucial to public health. If vendors pull together ideas and resources to enhance their knowledge and skills in producing and marketing quality meat products, they will not only save people from health risks, but also grow their business in the long run.

Adopting veganism or vegetarianism is a safe alternative but a matter of choice and taste. When asked whether they are willing to adopt veganism or vegetarianism, one in five interviewees (20.36 percent) said they are ready to do so.

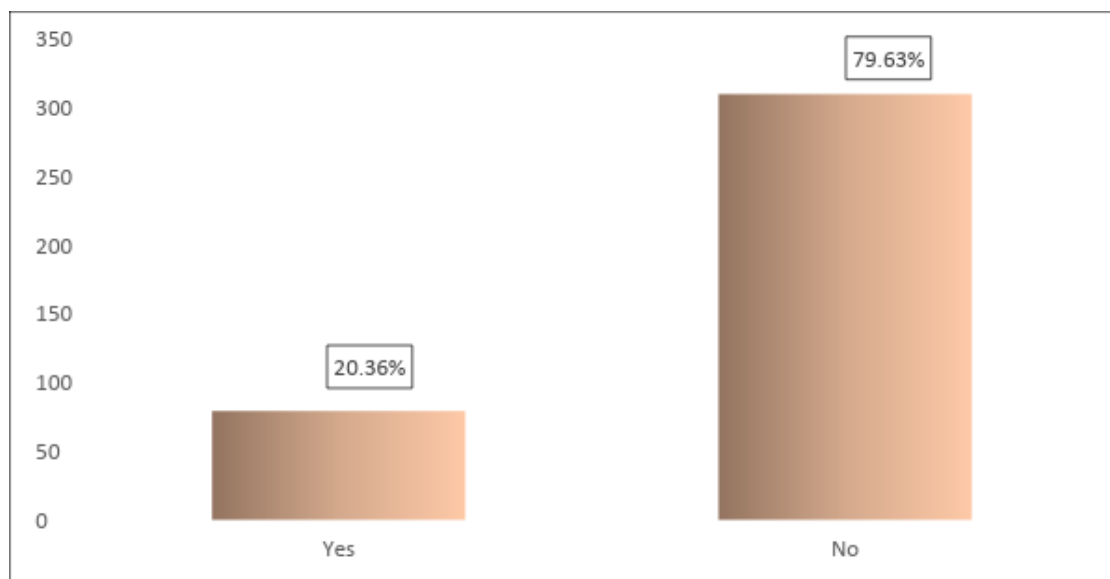


Figure 22 Response of respondent willing to be vegetarians in percent

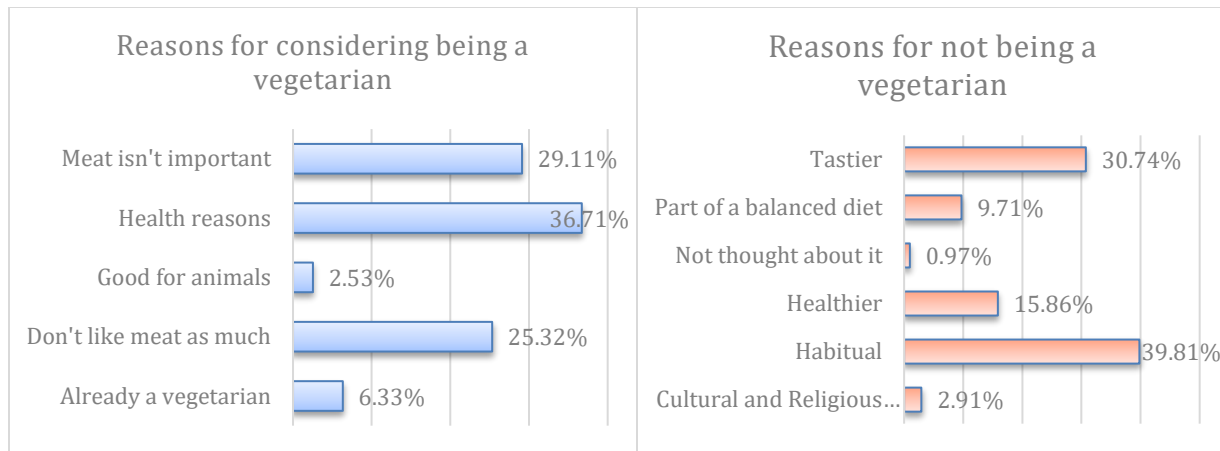


Figure 23 Reasons of consumers to become vegetarians or not

In response to the question whether animals feel pain or not, the vast majority of people (98.45 percent) responded positively. This shows that Nepalese society as a whole believes that animals are sentient beings, providing a foundation for interventions that promote animal welfare.

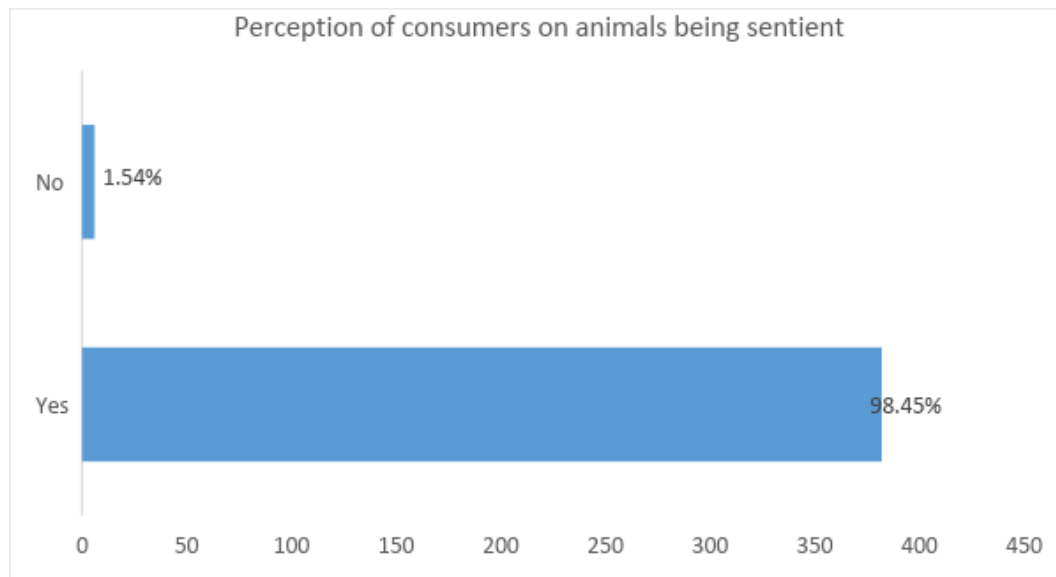
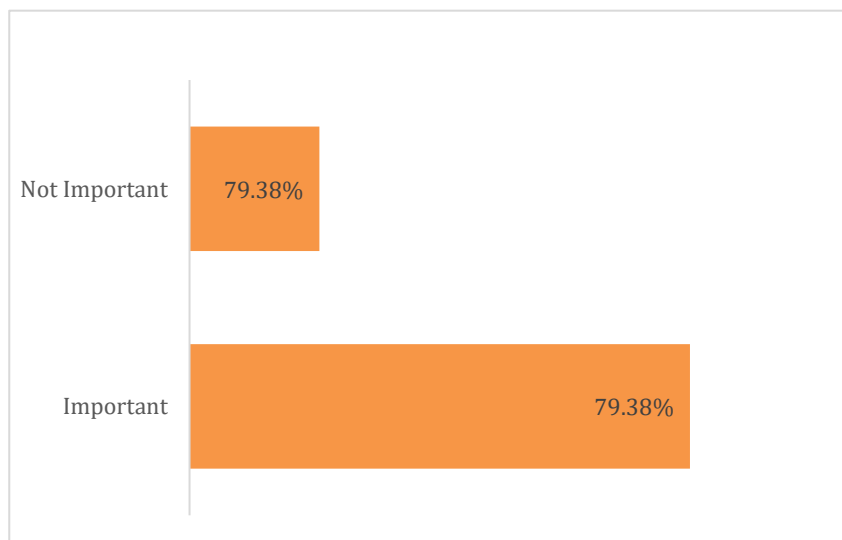


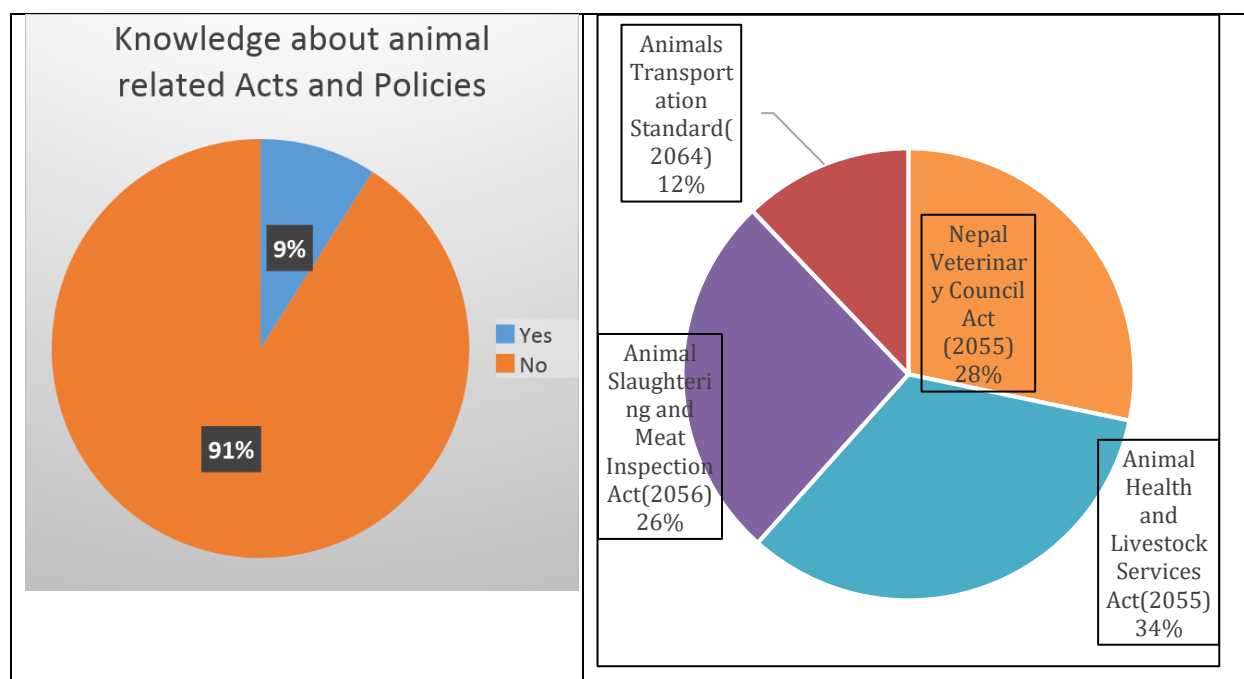
Figure 24 Perception of consumers on animals being sentient





When asked whether animal welfare is an important aspect of livestock development or not, the vast majority of interviewees (79.38 percent) responded positively.

*Figure 3 Perception about animal welfare in livestock industries*



*Figure 26 Knowledge about animal related Acts and Policies*

When exploring public knowledge of acts and policies related to animal welfare, it was found that this is a severely neglected area. The vast majority of respondents (90.97 percent) has no knowledge of such acts and policies. Among the 9.02 percent who have some knowledge, most respondents (34 percent) are familiar with the Animal Health and Livestock Services Act while

28 percent is aware of the Nepal Veterinary Council Act (2055). 26 percent of respondents knows about the Animal Slaughtering and Meat Inspection Act and the remaining 12 percent is informed about the Animal Transportation Standard.

#### 4.3.2 Animal Husbandry/Farmers

Table 4. 1 Various types of livestock by number of farms and livestock

S.N	Type of Livestock	No. of farms	Total no. of livestock
1	Yak/Nak <sup>4</sup>	14	834
2	Himalayan Goat	6	800
3	Goat	118	808
4	Cattle	86	431
5	Buffalo	77	359
6	Pig	45	1108
7	Sheep	15	120
8	Rabbit	3	16
9	Chicken	81	192152
10	Duck	11	174
11	Guinea Fowl	0	0
12	Ostrich and Emu	1	6000
13	Others	1	2
Total		458	

Although a total of 255 farms were visited during the course of the survey, the total came to 458 as around half of them are involved in multiple livestock rearing. The largest farms featuring large investments and a high number of animals produce chicken, pig and ostrich.

<sup>4</sup> People involved in Yak/Nak and Himalayan Goat farming were interviewed but the actual farms could not be visited due to bad weather and remote farm locations in the upper Himalayan region.

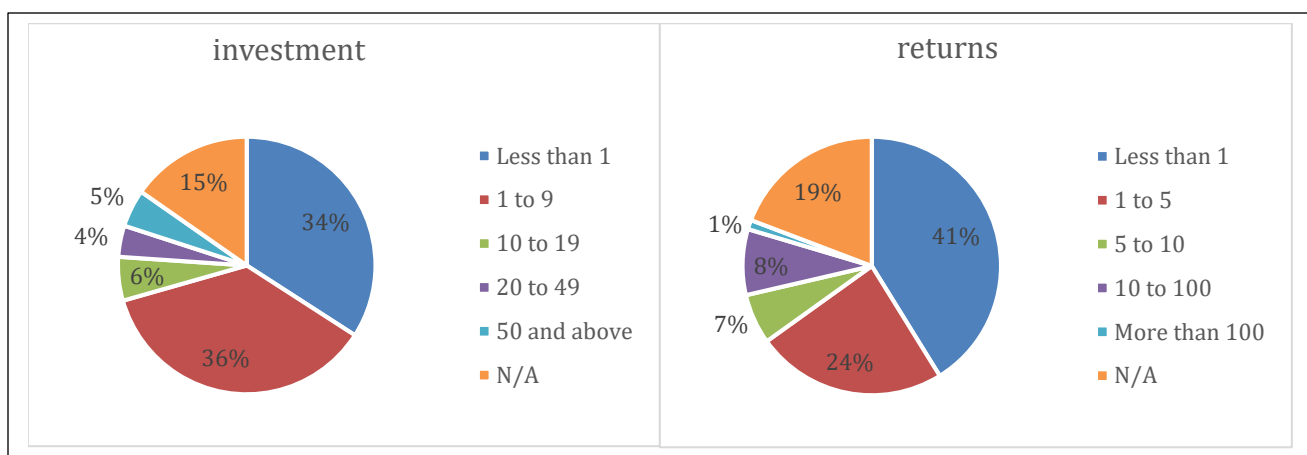


Figure 27 Scale of business by investment and returns (in Lakhs)

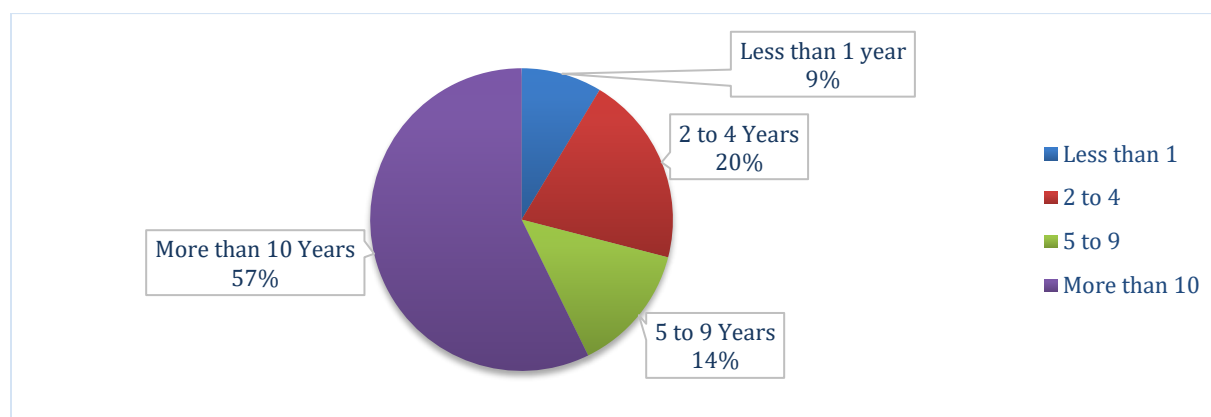


Figure 28. Percentage of farmers involved in livestock business (in years)

More than half of farms are run by farmers involved in the business for more than 10 years while only 9% of them had started the business only a year ago. For a little more than half (52 percent) of the farmers rearing livestock is their main source of income.

Although more than half of the farmers surveyed are solely dependent on livestock business for income, 79.22% of them run without additional staff and depend solely on supportive family members. This points to the fact that large scale factory farming, although a growing sector, is not widespread yet in the country.

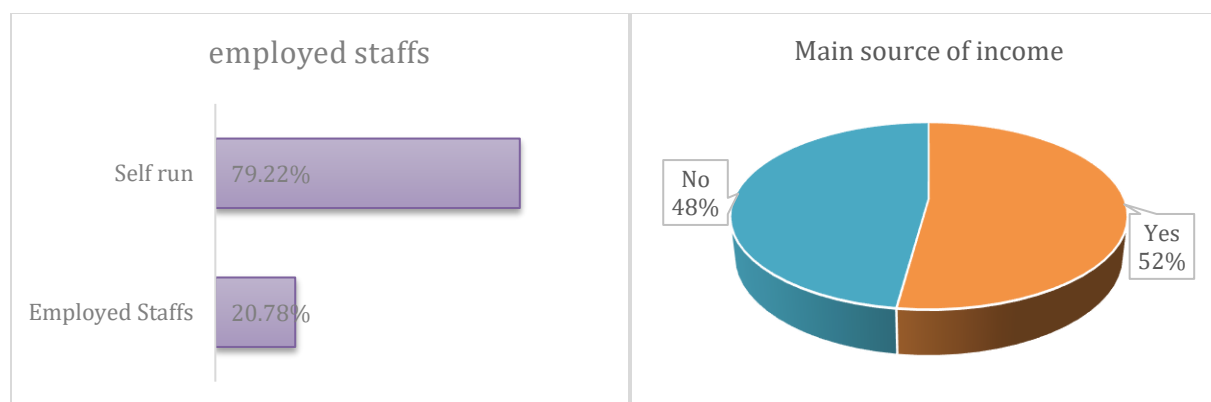


Figure 29. Livestock farming based on employed staff and main source of income

The chart below shows that half of farmers rate their farm as traditional, while one in three farmers (35.29 percent) considers it as semi traditional in which factory produced feed and semi intensive farming methods are used. The remaining farms (14.51 percent) are considered modern. However, observation learned that large farms too tend to be semi traditional in nature.

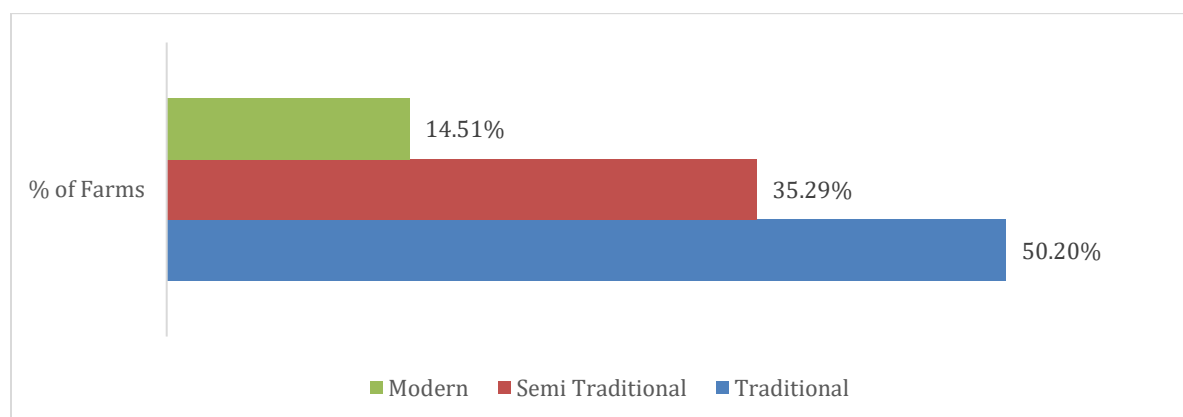


Figure 30. Types of farms

When asked what farming system were used, almost half of farmers (48 percent) said to practice semi-intensive farming in which they set their animals free for a certain period of time each day and house them in sheds or cages. Only 15 percent of farms are free range, while 37 percent is intensive. Most of the intensive farming is seen amongst poultry farmers who produce broiler chicken. While observing poultry farms it was found that most lack sufficient space and fail to adhere to minimum standards for size. When asked why producer prefer broiler chicken above free range (local) chicken, they said it is cheaper as broiler chicken can be raised in a few weeks while local chicken take months to mature. The Himalayan region boasts the highest

incidence of free range farms. Yaks are usually set free for grazing during the day and they are usually kept out in the open.

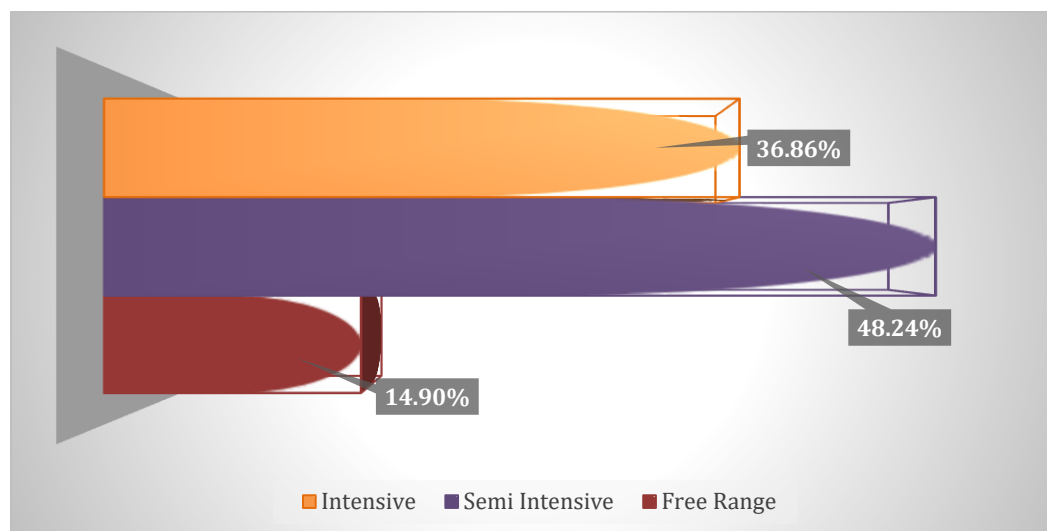


Figure 31. Types of farming system in percentage

The number of farmers who had prior knowledge about the rearing and caring of animals before starting their business is comparatively low, which contributes to the unmanaged and inhumane ways of treating animals within the industry. It was further seen that only 11% of the farmers received livestock related trainings after they started the business, focused mostly about feeding and animal production.

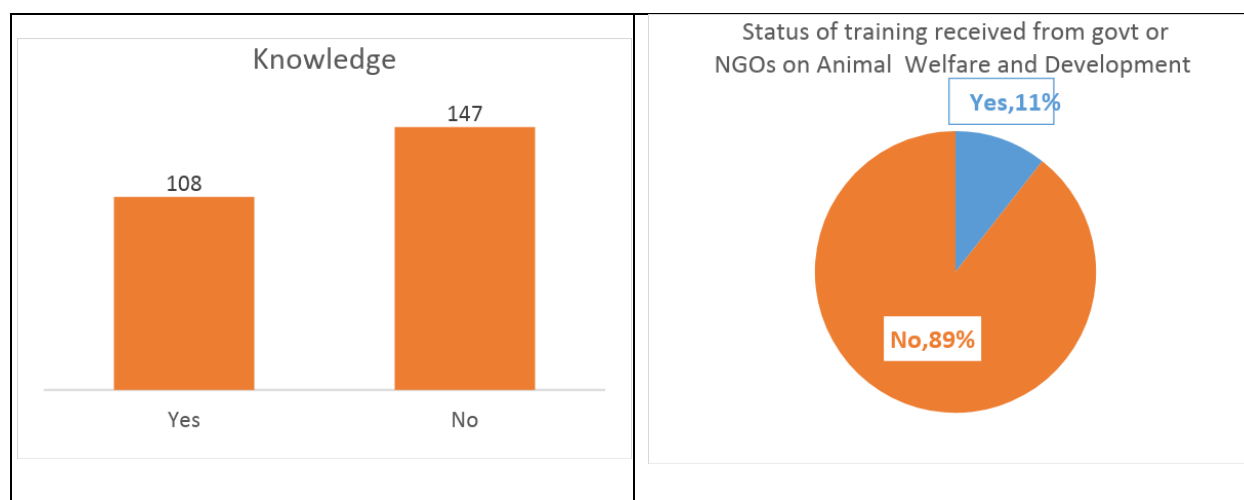
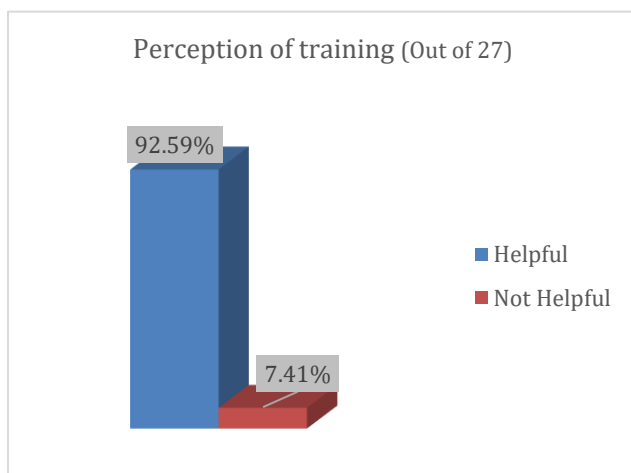
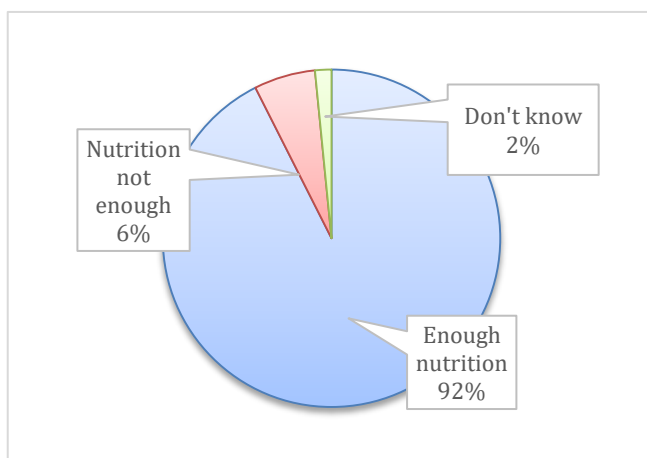


Figure 32. Prior Knowledge and training about the livestock industry before starting business



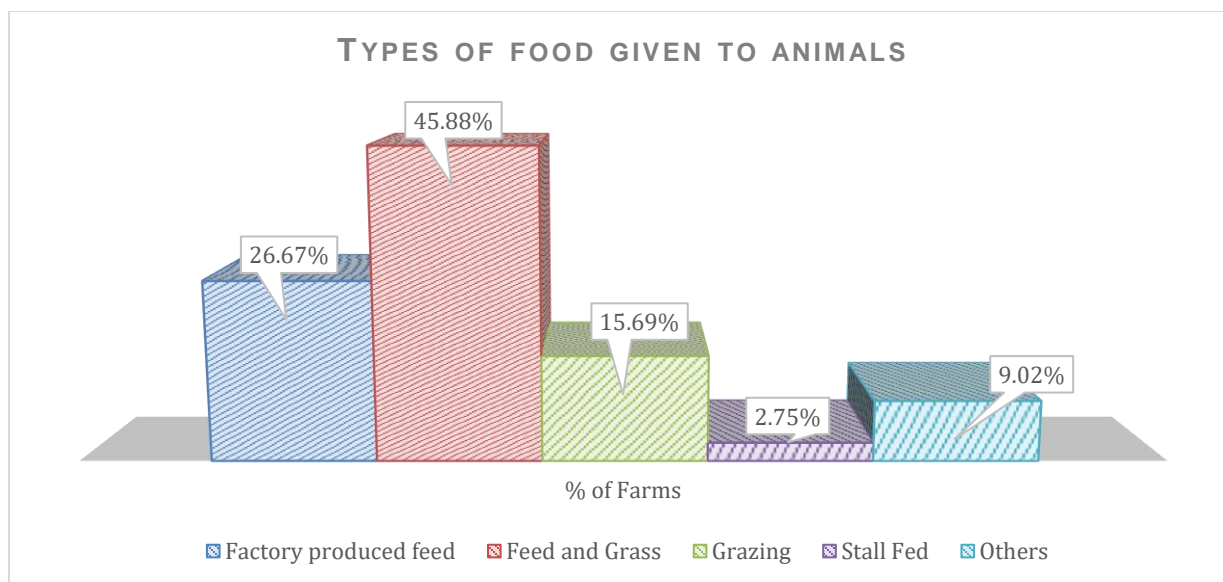
Most farmers (93 percent) believe that their reared animals receive a nutritional diet, mostly through factory produced feed as well as natural grazing and supplements. Close to half of the farmers (45.88 percent) combines factory produced feed and natural grass as primary food for their animals. 26.6 percent uses only factory produced feed, 15.69 percent prefers

grazing their animals while 2.75 percent provides cut grass and fodders to the animals tethered in sheds or cages.

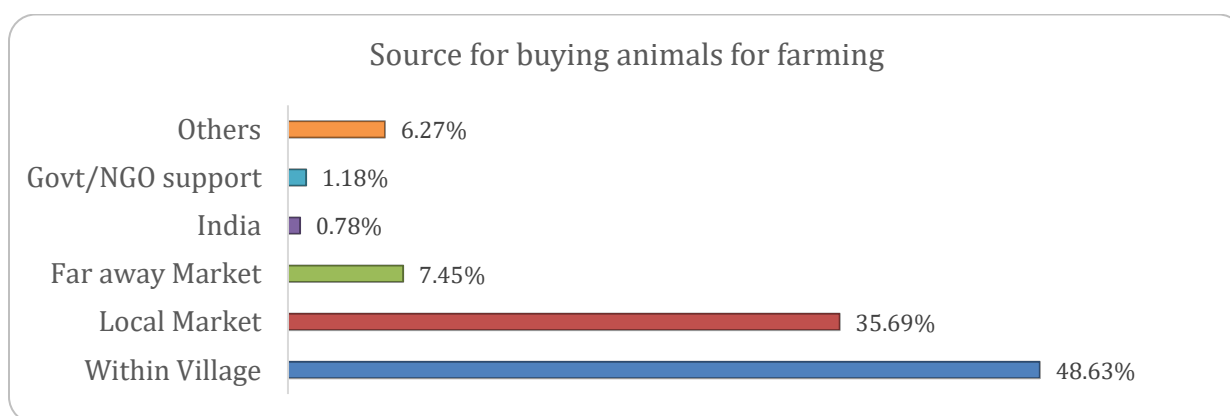


The 'Others' category represents feeding organic waste especially to pigs and feeding salt and maize in addition to grass to yaks and Himalayan goats.

Figure 34. Perception of nutritional diet for animals according to farmers

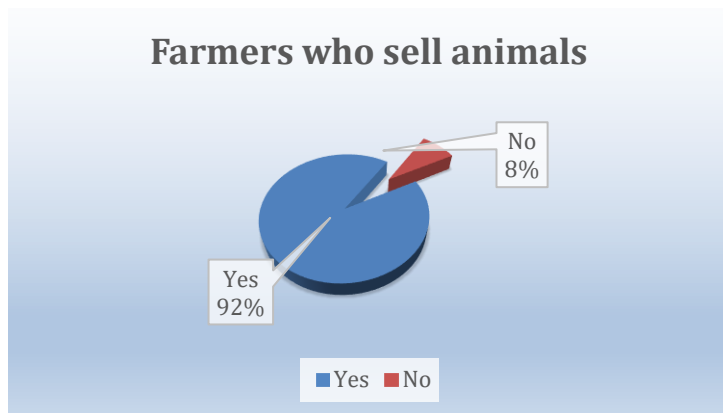


*Figure 35. Types of food given to animals*



*Figure 36. Source for buying animals for farming*

Most farmers buy their animals within the village area while 35.6 percent buys them at the local animal market (35.69 percent). Only 0.78 percent of farmers buys animals in India. The 6.27 percent who answered 'Other Sources' either breed animals or buy them from abroad in case of large scale farms. Large scale poultry farms like Cobb Nepal buy their chicks from the USA while goat farm like Bhumla Goat Farm import lambs from Australia.



Most farms (92 percent) sell their animals as a part of the business. 8 percent of farms use animals for producing dairy products. After the animals are incapable of producing such products they are sold to butchers and meat shops. The chart below shows that the majority of farms produce meat.

Figure 37. Farmers who sell animals

Milk is the second most produced product followed by dairy and wool. The farmers in 'Others' category sell offspring to be reared by others.

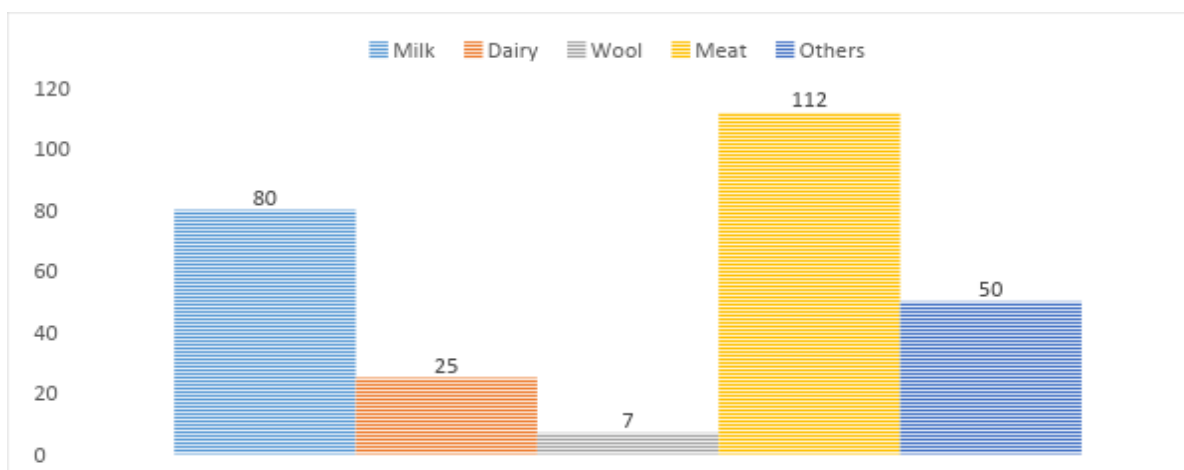
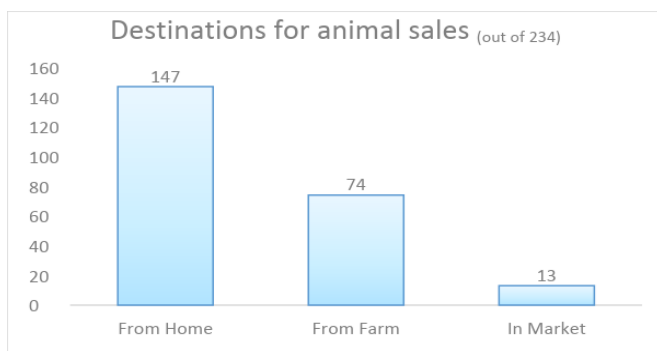


Figure 38. Livestock related products sold by farmers



Among 255 farmers, the vast majority (92 percent) sell animals, with the majority of them selling them from home. Most do not have an area designated as farm, while 74 farmers sell livestock from their designated farms and 13 take animals to the market area to sell.

Figure 39. Destination for animals sales (out of 234)



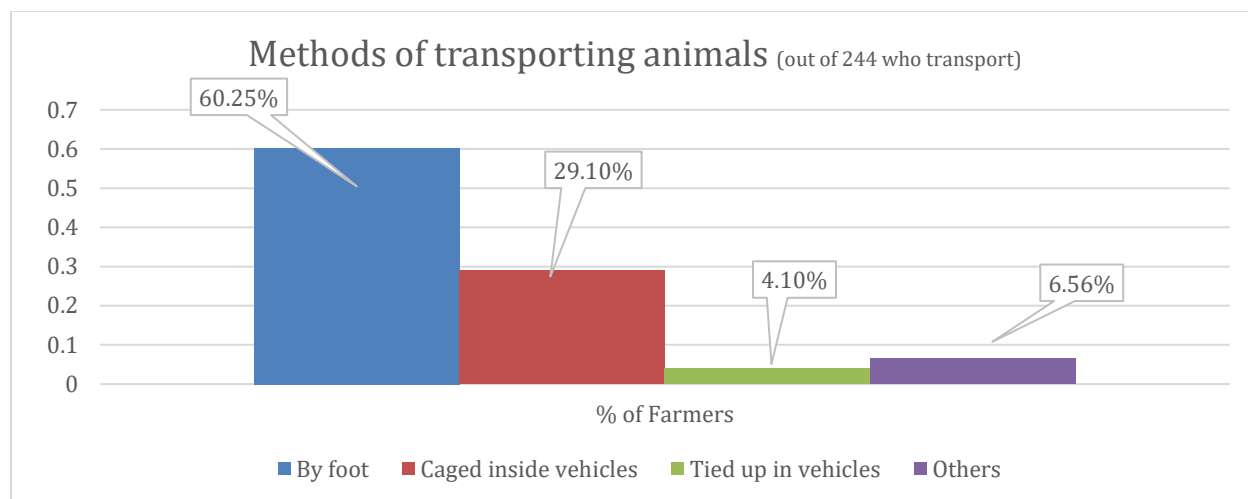


Figure 40. Methods of transporting animals (out of 244 who transport)

The vast majority of farmers (244 out of 255) transport animals and among them 60 percent walks their animals, mainly because they are located in rural areas and do not need to go far to reach the market. Some 29 percent of farmers uses vehicles in which the animals are caged or tied up the animals and 4 percent uses vehicles without restraining methods. 6.56 percent of farmers use bicycles and motorcycles to transport their animals

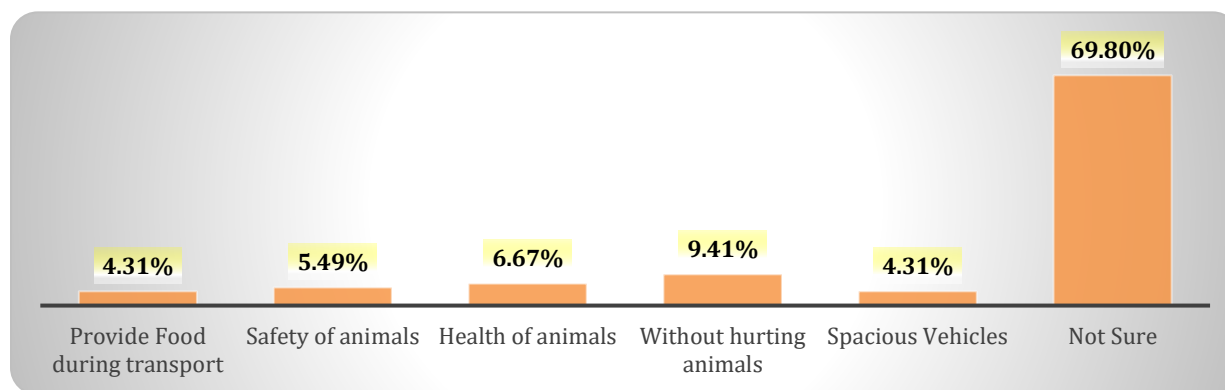


Figure 41. Consideration of farmers during transporting animals

Talking about the considerations taken during transportation of animals, two third of respondents transported the animals in whatever way possible. Less than ten percent chooses not to hurt animals while transporting and 4.31 percent takes extra care by providing food and a spacious vehicle. The safety and health of the animals are prioritized respectively by 5.49 percent and 6.67 percent of farmers.

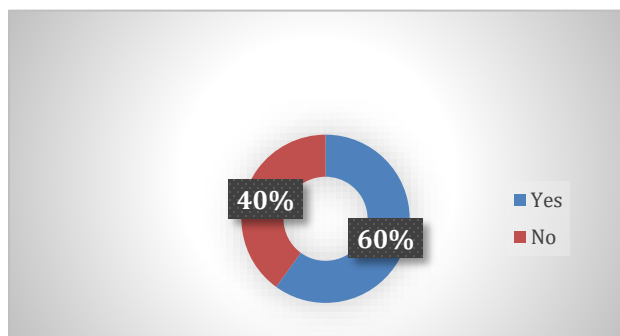


Figure 4 Knowledge about quarantine process while transporting livestock

60% of farmers are aware of the quarantine process but have no firsthand experience with it.

Among many breeding methods, most farmers use natural methods. 10.2 percent practices Artificial Insemination (AI). A small percentage (1.57 percent) uses both natural and artificial breeding and 3.92 percent does buys young animals. Among the 30 farmers who practice

AI, nine have been doing so for over five years now and the others started it more recently.

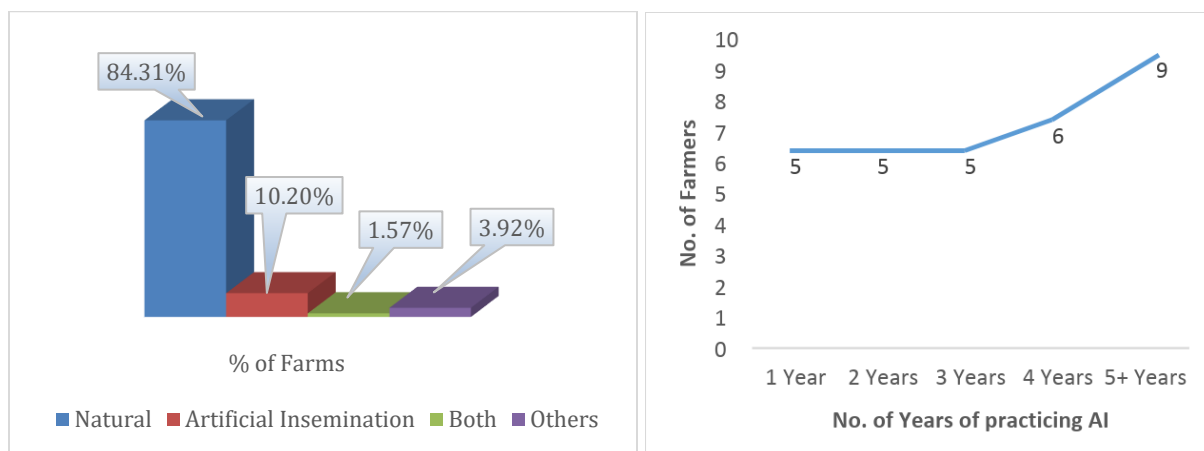


Figure 43. Breeding methods practiced by livestock farmers and years of practice

When asked if the farmers know about 'Sperm Sorting' techniques, a means of choosing what type of sperm cell is to fertilize the egg cell, 86 percent said they were unaware of it. Increased knowledge of and access to sperm sorting might address the issue of widespread abandonment of male calves and oxen.

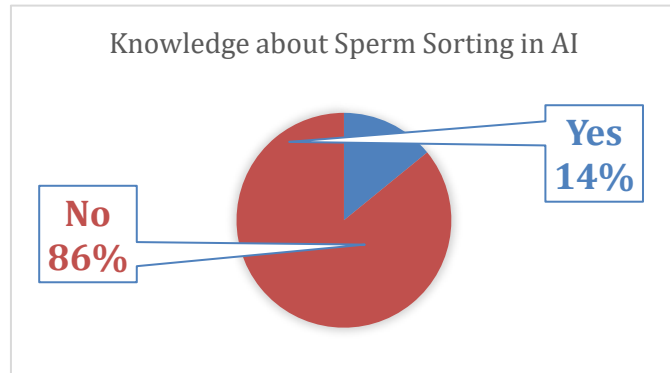


Figure 5 Knowledge about Sperm Sorting

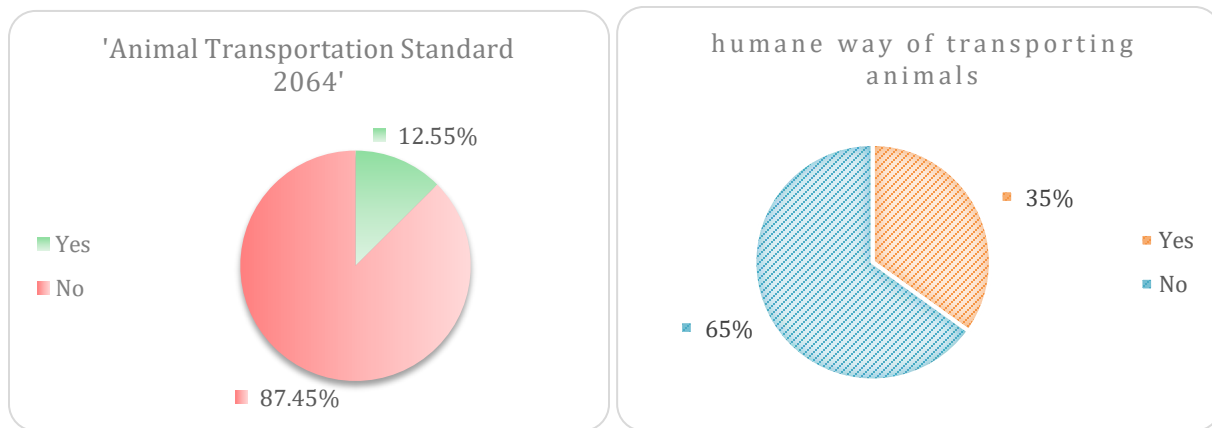


Figure 45. Knowledge of Animal Transportation Standard and humane way of transporting

The charts above show the awareness levels of farmers regarding the humane treatment of animals during transportation. While only 12.55 percent of farmers are informed about the Animal Transportation Standard, and 65 percent is unaware of the concept of humane transportation.

A relatively high percentage of farmers (87.06 percent) has access to veterinary services. Regarding the frequency of health checkups, the majority (83.53 percent) performs checkups only if the animals are sick or injured. A small percentage (0.78 percent) of large scale farmers

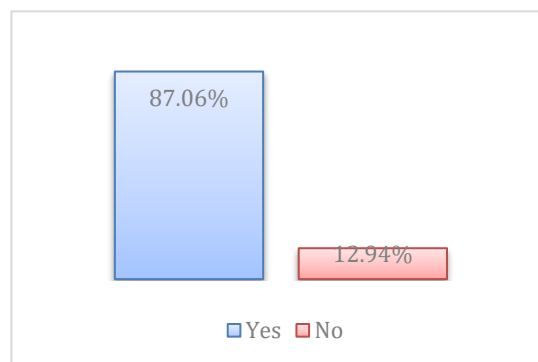


Figure 6 Availability of Veterinary/ animals hospitals nearby

opts for monthly checkups, 10.98 percent for annual checkups and 3.53 percent for bi-annual checkups. The outcomes suggest that regular health checks up are a feature at large farms but a neglected practice at smaller farms.

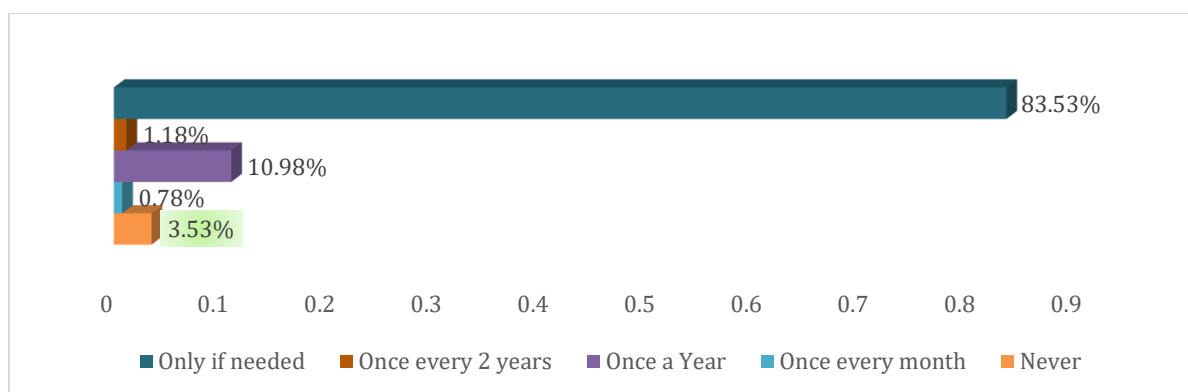


Figure 47.Frequency of livestock health checkup

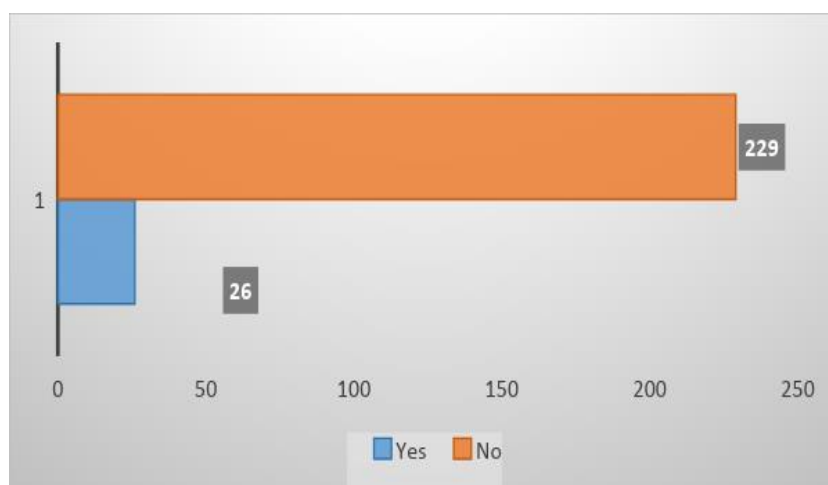


Figure 48.Affiliation with livestock development

When asked if they affiliated with any kind of organization related to animal and livestock development, only 26 out of 255 interviewed farmers responded positively. This suggests that few farmers are regularly informed about and trained in issues related to livestock development and welfare.

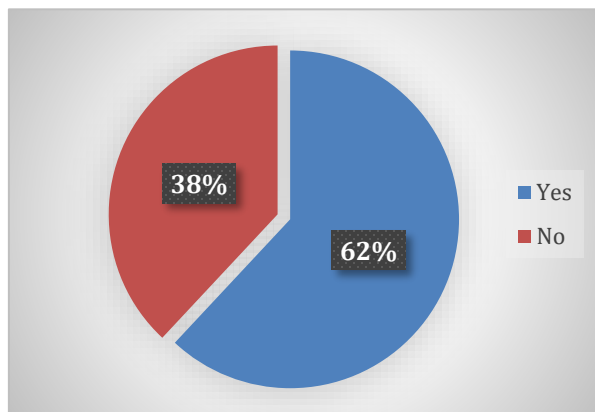


Figure 7 Animal Slaughtering practice by farmers

When asked if they slaughter animals for meat production, 158 out of 255 farmers (62 percent) said yes. The chart below shows that most farmers prefer traditional slaughtering practice, i.e. using a sharp object to decapitate the animal in one blow, known as '*Maar Hanne*' in Nepali.. Some eight percent of farmers stab the animals to death, a practice that is generally found pigs'

hearts are pierced with a sharp object. A small percentage (3.8 percent) use a hammer to hit the animal on the forehead, mostly practiced on buffaloes and pigs. . Only two farms (Yeti Livestock and Ostrich Farm) have introduced stunning as their slaughtering system. One in ten farmers stated that they extract the heart from the animals or slowly cut their throat (*Retnu* in Nepali). Both of these 'Other' techniques are used for Yak/Nak and Himalayan Goats.

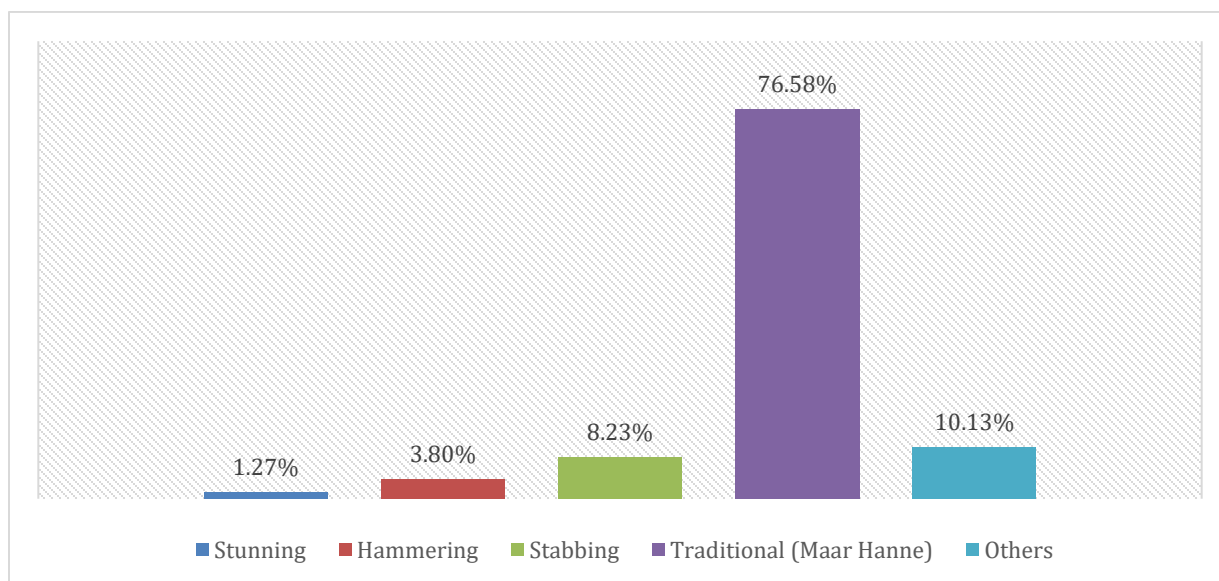
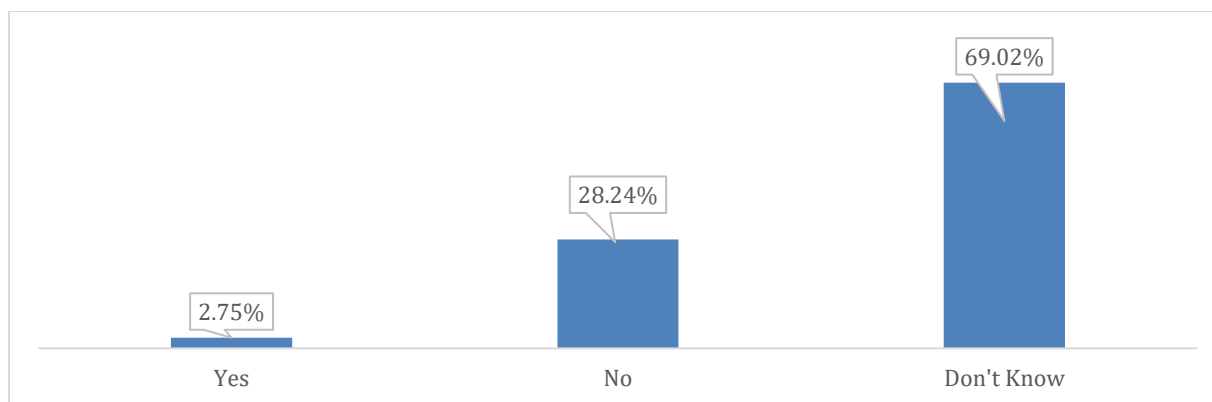


Figure 50. Ways of slaughtering animals by farmers (out of 158)



*Figure 51. Perception of farmers about whether slaughter methods are in line with Meat Act*

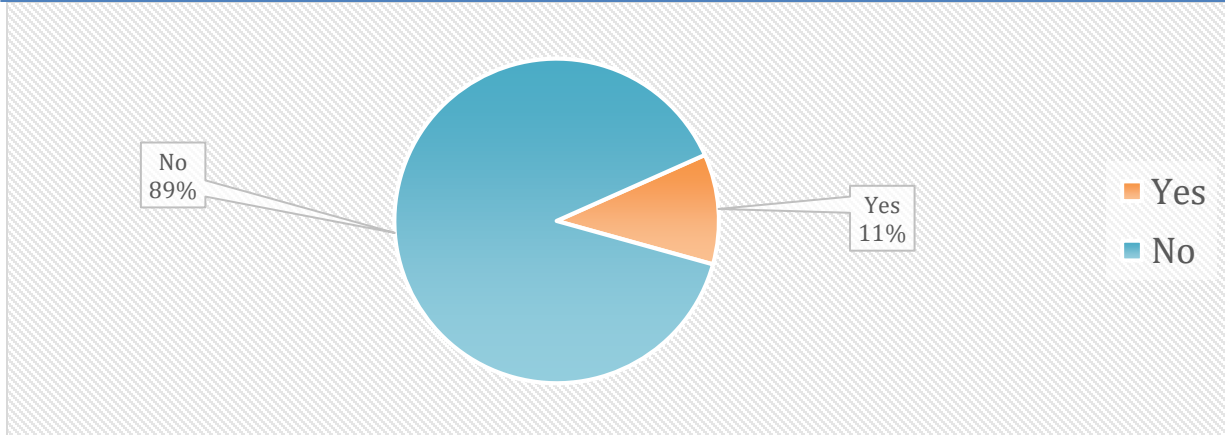
To find out if farmers are aware of provisions in the Animal Slaughtering and Meat Inspection Act, they were asked if their slaughtering practices are in line with the act or not. Seven out of ten said they didn't know while 28.24 percent agree that their methods are not in line with the Act. This outcome shows the low level of awareness on acts and policies of farmers as well as the lack of implementation among those who are informed.

*Case Study: Well managed Ostrich Farm in Rupandehi*



**Ostrich Nepal** is a private company which started ostrich farming in 2008. Located at Tilotamma municipality, Rupandehi district, and covering an area of twenty two bigha, it is believed to be the largest ostrich farm in Asia. Ostrich Nepal started with an initial investment of NPR 300 million. Aiming to launch different varieties of ostrich products in the Nepalese market, the founder, Mr CP Sharma, at first imported ostriches from Australia and South Africa. By now the company breeds ostriches at the farm and employs 156 people. The farm receives many visitors, who come to see the new bird species and the outline of the farm.

According to Mr Sharma, the company follows the rules and policies regarding animal welfare. The diet of the ostriches consists mainly of plant matters such as seeds, shrubs, grasses, etc. and invertebrates like insects. Observation learns that facilities for water, food and space are sufficient. To conduct the rearing, breeding and slaughtering of the birds in a scientific way, a veterinarian has been employed. The company has introduced stunning facilities in its slaughterhouse, which is operated by experienced and dedicated staff. Ostrich products like meat and eggs are marketed locally and internationally. Ostrich meat costs NPR 3/4000 per kg, while eggs are sold for NPR 2,000 per piece.



*Figure 52. Knowledge about animal related acts and policies among farmers*

Among the 255 surveyed farmers, only 11 percent is aware of policies and acts related to animals and welfare. Among the 28 farmers who are informed about the acts and policies, 32.61

percent know about the Animal Transportation Standard followed by the Animal Health and Livestock Services Act and the National Dairy Development Board Act. One of the most important acts related to consumer health and animal welfare, the Animal Slaughtering and Meat Inspection Act, is least known among farmers.

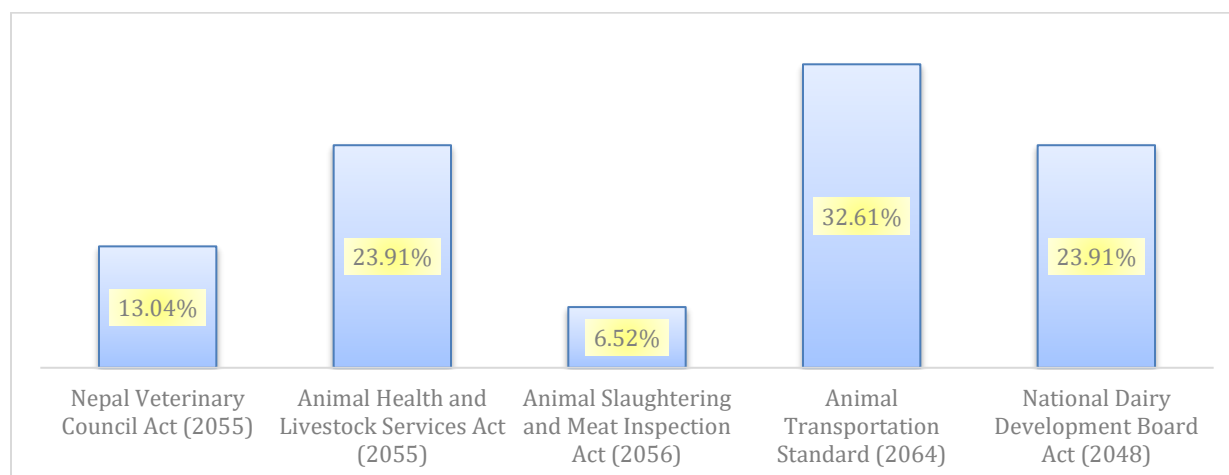


Figure 53. Acts and policies known by farmers (out of 28 people)

Although most farmers are involved in livestock business for more than a decade (Fig 28), only 40 percent are aware about the livestock insurance services provided by the Government of Nepal and only 12.16 percent of farmers have insured their animals. This outcomes again confirms that not only consumers but also farmers remain uninformed about services provided by the government; even when they are aware, only few farmers use the services.

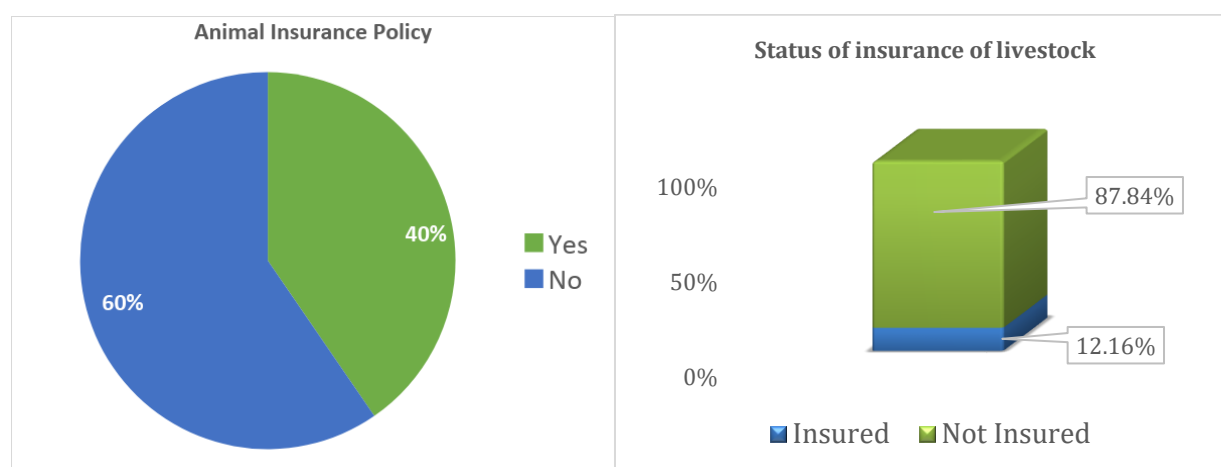


Figure 54. Knowledge about animal insurance policy of Gov. and status of insurance of livestock among farmers



Among the 31 farmers who have insured their animals, 20 have already claimed refunds for livestock deaths. Close to half of respondents say it is fairly easy to get reimbursements while 30 percent claim it is difficult. 15 percent feels it is very difficult and 10 percent considers it easy to get reimbursed. Those considering the process easy say all they need to do is provide the concerned authorities with pictures of the dead animals with their tracking ID, after they get reimbursed within days. Those struggling explain that concerned authorities demand countless documents and keep the applicants waiting for months.

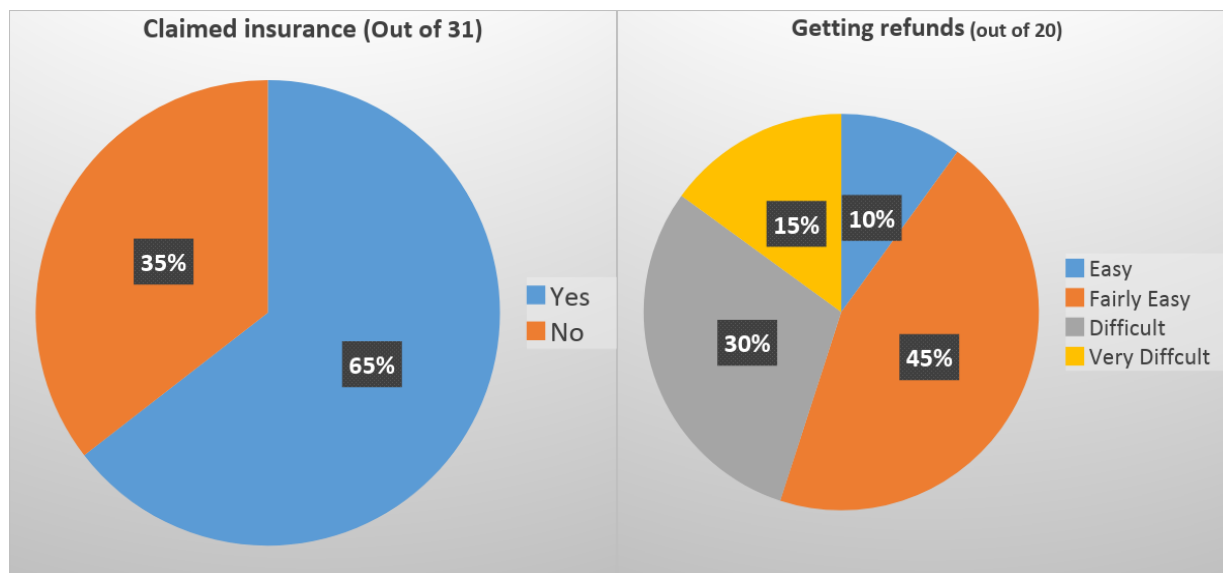


Figure 55. Percentage of farmers who have claimed insurance (out of 31) and their experience in getting refund (out of 20)

The farmers were further asked if they consider turning vegetarian. Three fourth of respondents replied negatively, and 23.53 percent positively.

Almost half of those who will not turn vegetarian explain that they simply like the taste of meat. Close to one in five say they have eaten meat since childhood and lack the willpower to give it up. Close to 18 percent argues

meat is good for their health while 9.2 percent has no reason. Interestingly,

the reasons for eating meat are very different among consumers and farmers. Most consumers

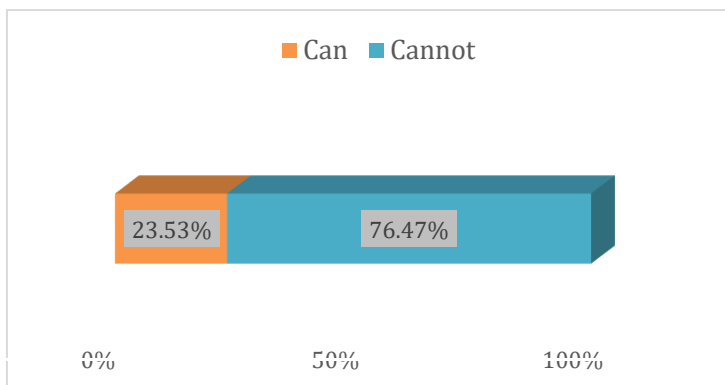
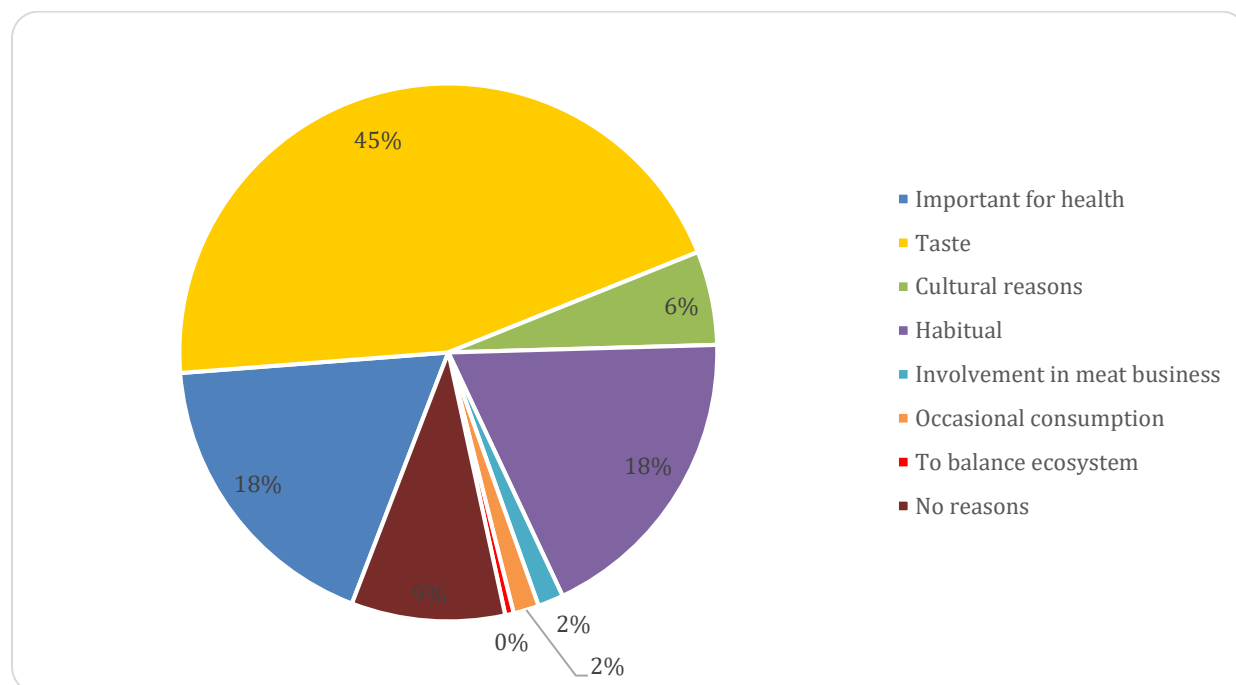


Figure 8 Perception of farmers about turning into vegetarian

are non-vegetarians because of cultural and religious reasons, while most farmers eat meat simply because they like the taste. Close to 20 percent of farmers is vegetarian.



*Figure 57. Reasons for not being a vegetarian among farmers (out of 195)*

When we ask the 60 out of 255 farmers who are willing to be vegetarians about their rationale, one in three say meat is unhealthy and unhygienic. Close to 20 percent say they do not like meat while 10 percent does not consider meat important for their diet. A small percentage (3.33 percent) argues that their culture and religion does not allow them to eat meat and 6.67 percent does not have any reason and can turn vegetarian if they want to. Only 1.67 percent of farmers are ready to be vegetarians because they love animals and believe they have the right to live.

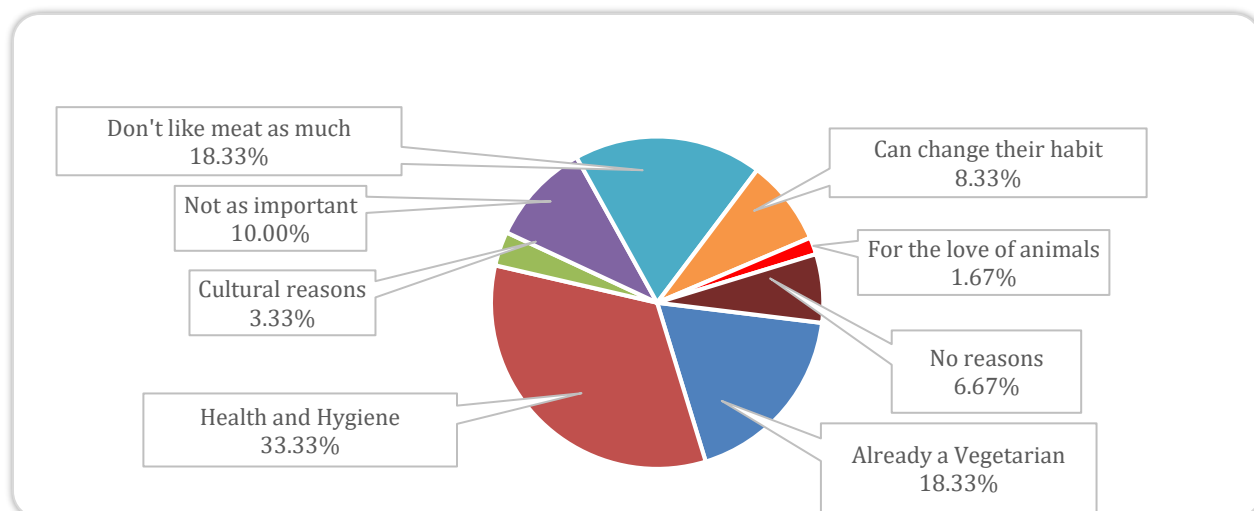


Figure 58. Reasons for considering being a vegetarian among farmers (out of 60)

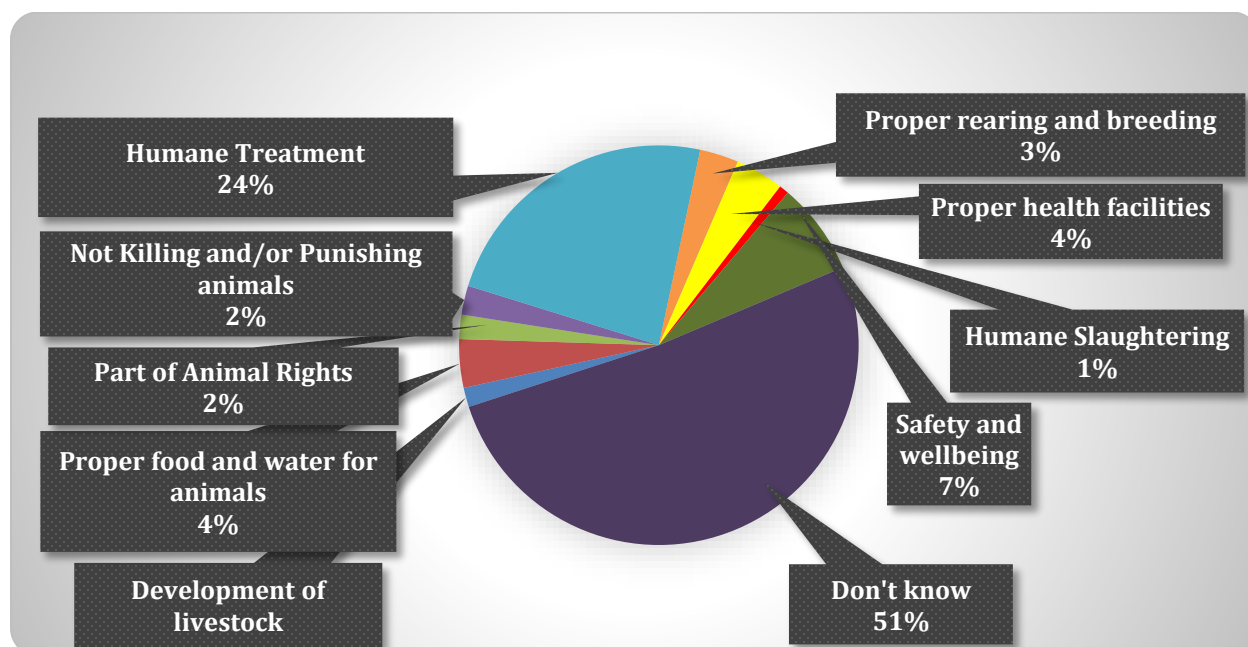
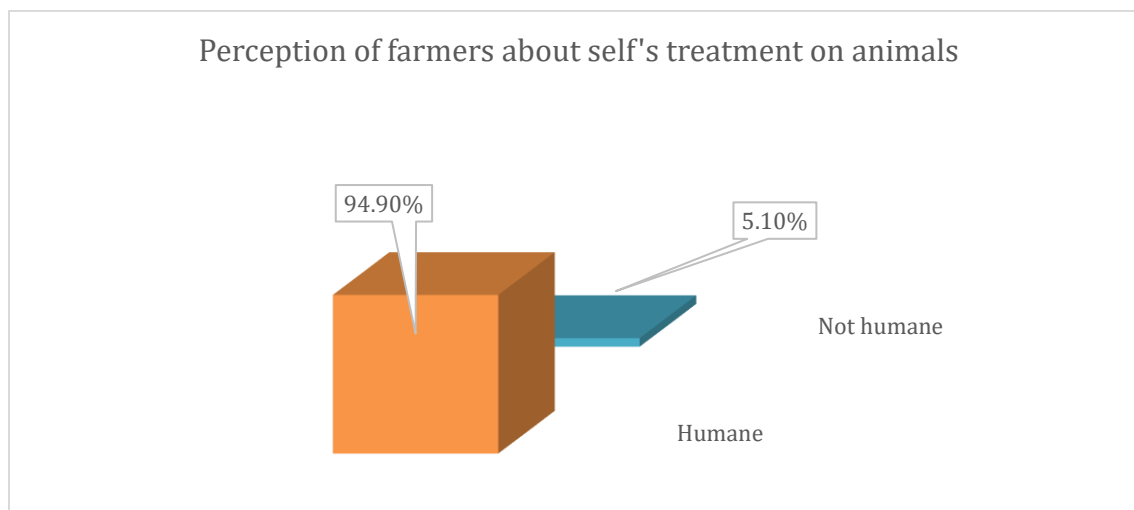


Figure 59. Perception of farmers about animal welfare

It is not surprising that more than half of farmers do not know what the concept of animal welfare is. One fourth assumes animal welfare is related to treating animals in a humane way. 4 percent relates it to proper food and water and 2 percent believes it is part of animal rights and animals should not be killed or punished. Only 1 percent relates animal welfare to humane slaughter. Overall, it can be said that people are confused about the actual meaning of animal

welfare and animal rights. This calls for the need of education among the general public, including farmers and entrepreneurs involved in livestock sector.

To find out farmers' perception of the humane treatment of animals, the overwhelming majority (94.9 percent) believes they treat their livestock in a humane manner. This perception contradicts the present reality, in which livestock face inhumane practices when being reared, transported and slaughtered.



*Figure 60. Perception of farmers about their treatment of animals*

At the same time, almost all responding farmers believe that animals are sentient beings and experience pain and suffering like human beings. As they lack awareness about animal welfare and the rules and regulations, it appears that ignorance and in some cases greed leads to the inhumane treatment to animals in the livestock sector. After explaining the concept of animal welfare, 85 percent of farmers said it is an important issue.

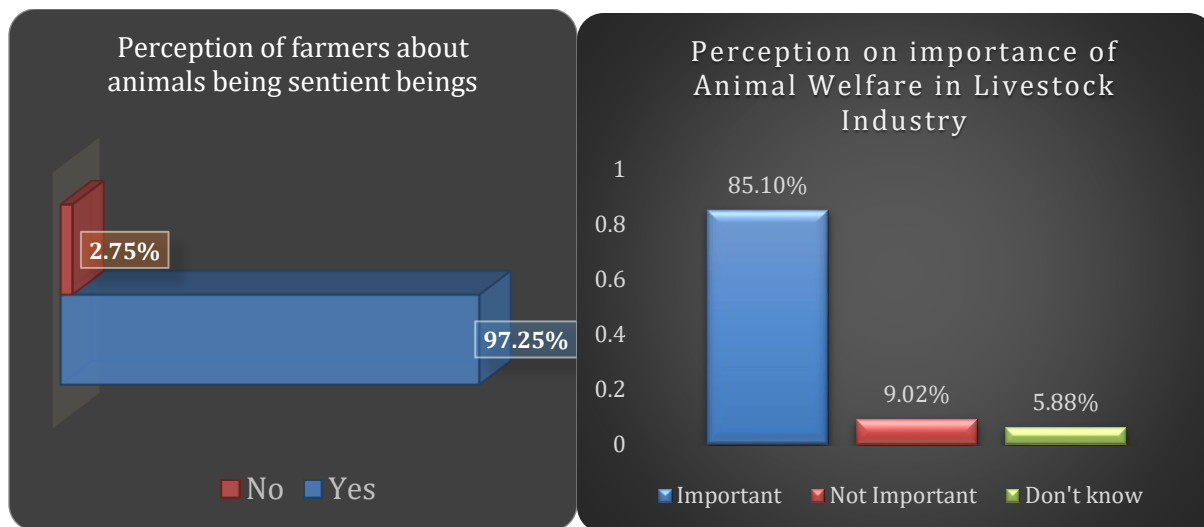


Figure 61. Perception of farmers about animals being sentient beings and importance of animal welfare in livestock industry

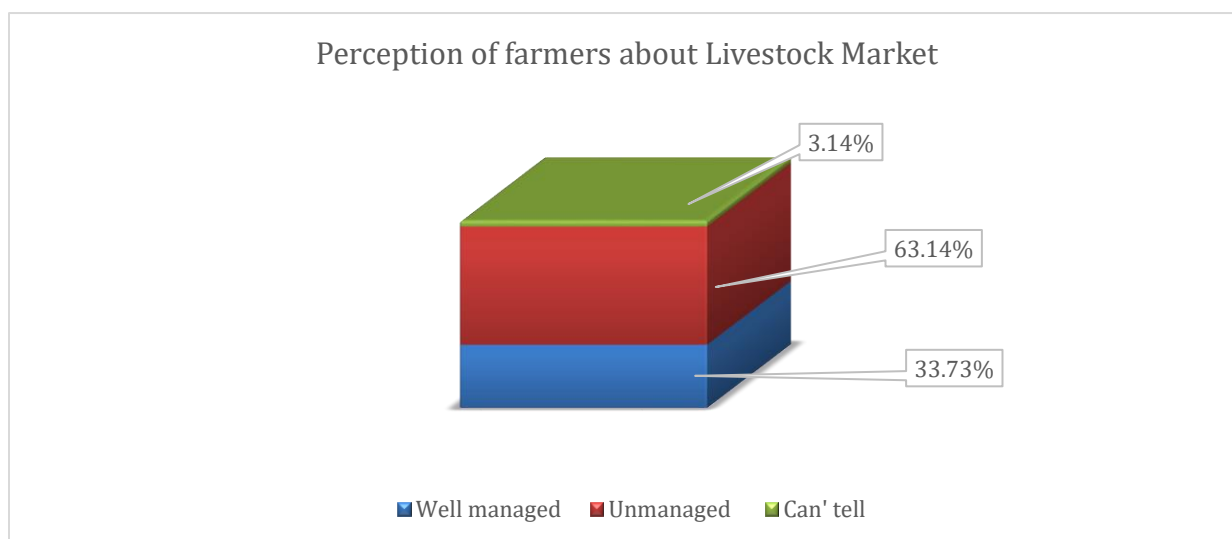


Figure 62. Perception of farmers about management of livestock market

### 4.3.3 Meat Industry/Butchers

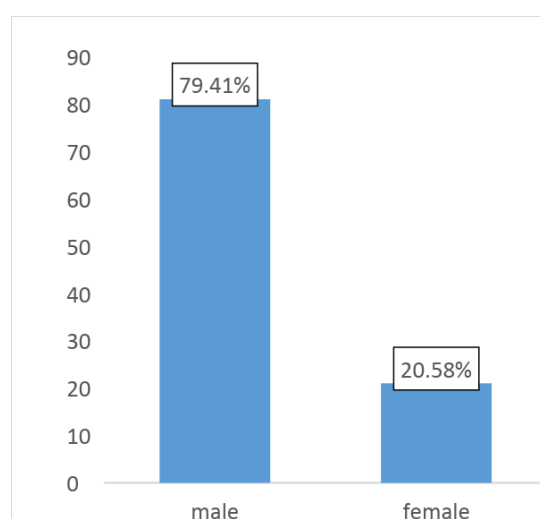
In order to get an in depth understanding of perceptions among representatives from the meat industry we included both large scale meat producers as well as butchers operating small meat shops. As Nepal lacks large scale meat industries, most respondents consisted of small scale meat suppliers and local butchers. In Nepal, there are only eight registered slaughterhouses (slabs), most of which are not operating.

*Table 7 List of registered slaughterhouses in Nepal*

S.N	Name of Slaughter house	Location	Established year	Animals
1	Shangrila International Food Pvt. Ltd	Dubahi-1, Sunsari	2066	Buffalo
2	C-Max Food Pvt. Ltd.	Nursing Tole 1, Sunsari	2065	Buffalo
3	Kriti Meat Production Pvt. Ltd.	Dhalkebar	2063	Buffalo
4	Buffalo Quality Food Pvt. Ltd.	Hetauda industrial Area	2028	Buffalo
5	Himalayan International Food Pvt. Ltd.	Parwanipur, Parsa	2071	Buffalo
6	Hero Food Pvt. Ltd.	Birgunj Parsa	2016	Buffalo
7	China Food Pvt. Ltd.	Gulariya Bardiya	2068	Buffalo
8	Sanding Food Pvt. Ltd.	Gulariya Bardiya	2068	Buffalo

Source: Livestock Market Promotion Directive Inventory (2073/074)

A total of 102 meat producers were surveyed among which 79.41% were male and 20.58% female. Among them, almost 40% have been selling meat for more than four years with 28.43%



doing it as a family business. Only 15.68% of meat producers have received trainings before or after being involved in the meat producing business. This questions the implementation and effectiveness of the Animal Slaughtering and Meat Inspection Act.

*Figure 63. Gender distribution of meat producer respondents*

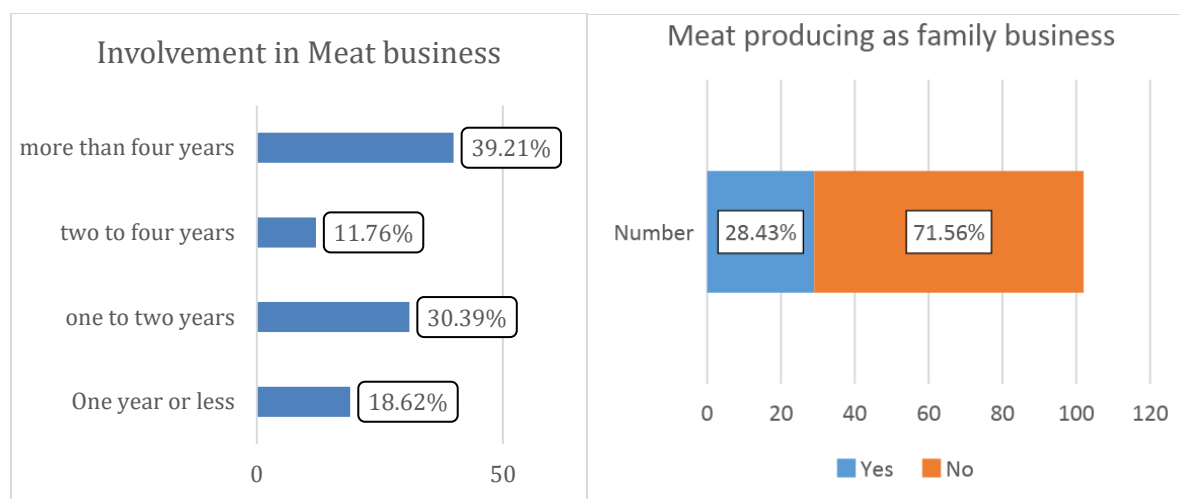


Figure 64. Respondents' involvement in meat business and business type

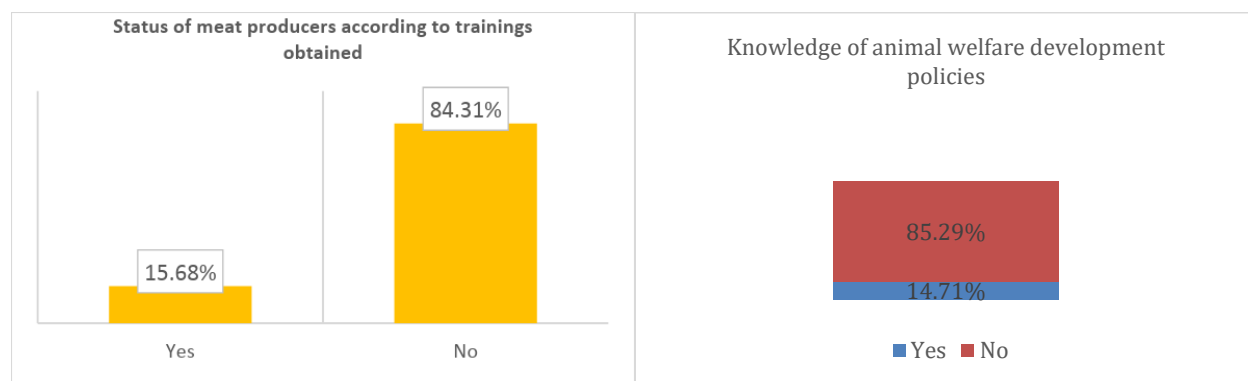


Figure 65. Trainings obtained by producers and knowledge of animal welfare policies

Among the 102 businesses, only half are legally registered, which questions the monitoring mechanism of the concerned authorities. Around one in five of meat industries have employees, while the others are run by an individual or helped by family members. Only 14.17 percent of meat producers have knowledgeable about policies related to meat production and animal welfare. Observation showed that those who do know about the policies fail to implement them.

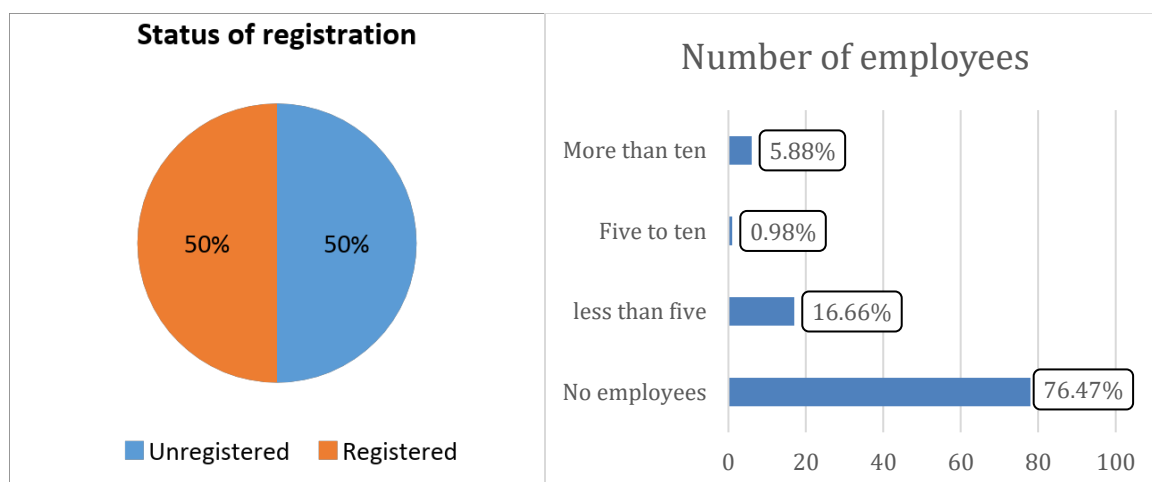


Figure 66. Status of business registration and number of employees

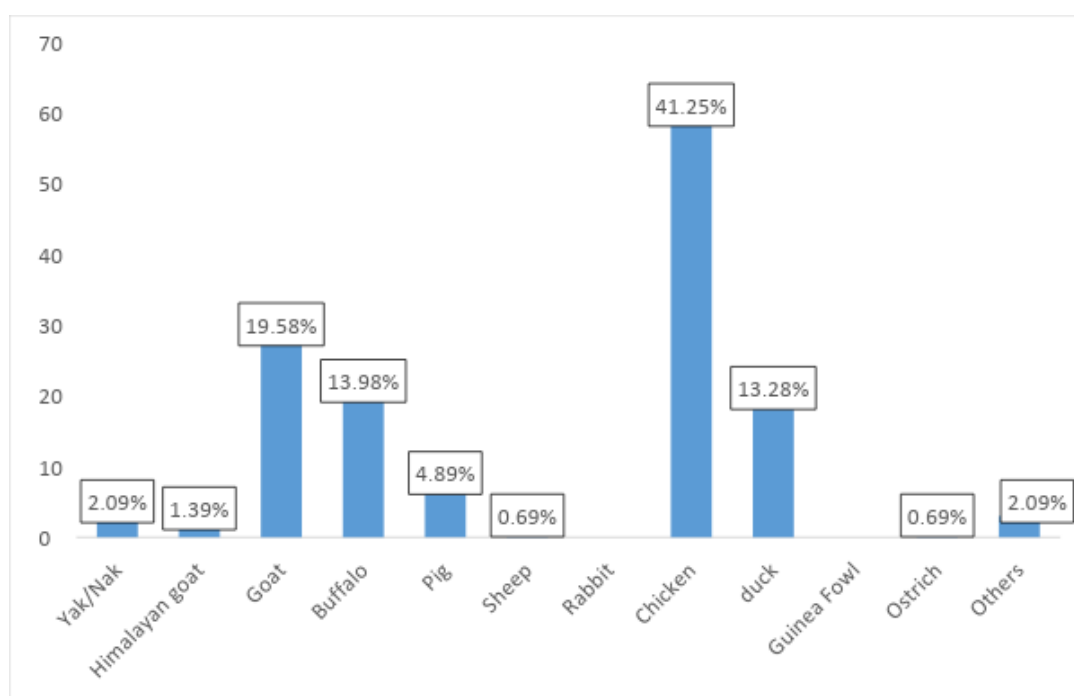


Figure 67. Types of animal meat produced by businesses

Most entrepreneurs are involved in selling chicken meat (41.25 percent) followed by goat meat (19.58 percent). Buffalo meat is produced by 13.98 percent, especially in the Hill region. Yak and Himalayan goat meat are produced by 2.09 percent and 1.39 percent respectively. A small percentage (2.09 percent) produce 'Other' meat products like fish and ostrich.



Most businesses produce less than 50 kgs of meat per day while only three meat producers (Machhapuchhre Cold Store and Pokhara Himalayan Meats in Pokhara and Choudhary Meat Shop in Ghorahi) produce above 300 kgs of meat.

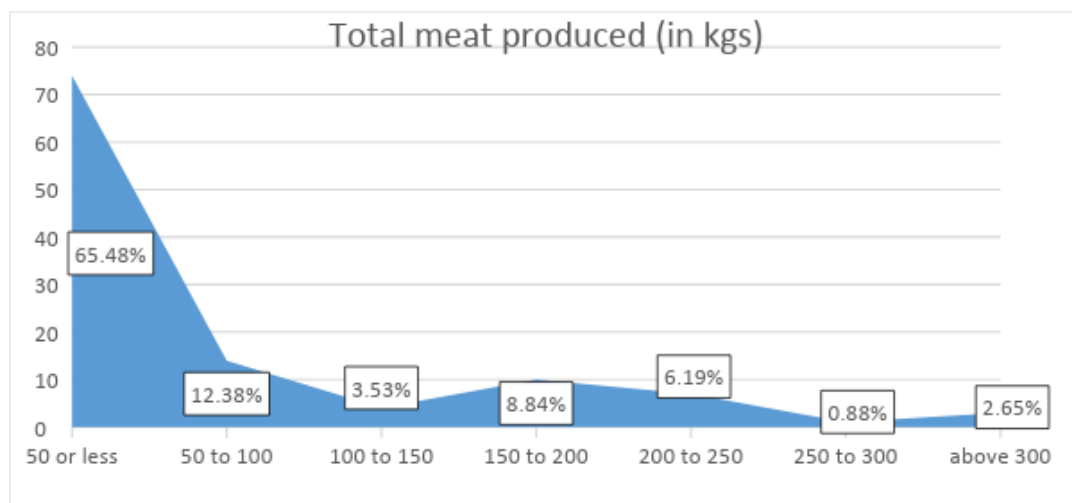


Figure 68. Total range of meat produced by businesses

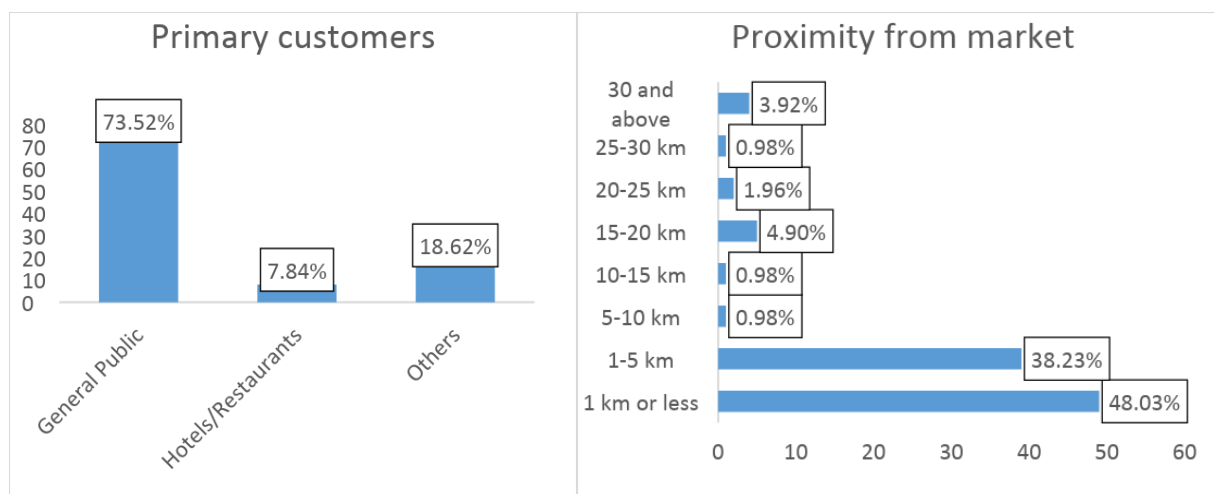


Figure 69. Type of primary customers and businesses' proximity to market

The primary customers of meat producers are the general public (73.52 percent) and hotels and restaurants (7.84 percent). About one in five producers sell meat to other meat shops. Most butchers have a nearby local market nearby. 48.03 percent of shops are located within 1 km distance, while only 3.92 percent are more than 30 km away from the market.

Most of the entrepreneurs slaughter animals themselves (82.35 percent) while 12.74 percent buys meat from other places. Around five percent does both, depending on the demand from

the customers. Out of 89 producers who slaughter animals, half buys them from within the village, while the other half relies on the local market for purchase. Only 4.49 percent buys animals directly from farms.

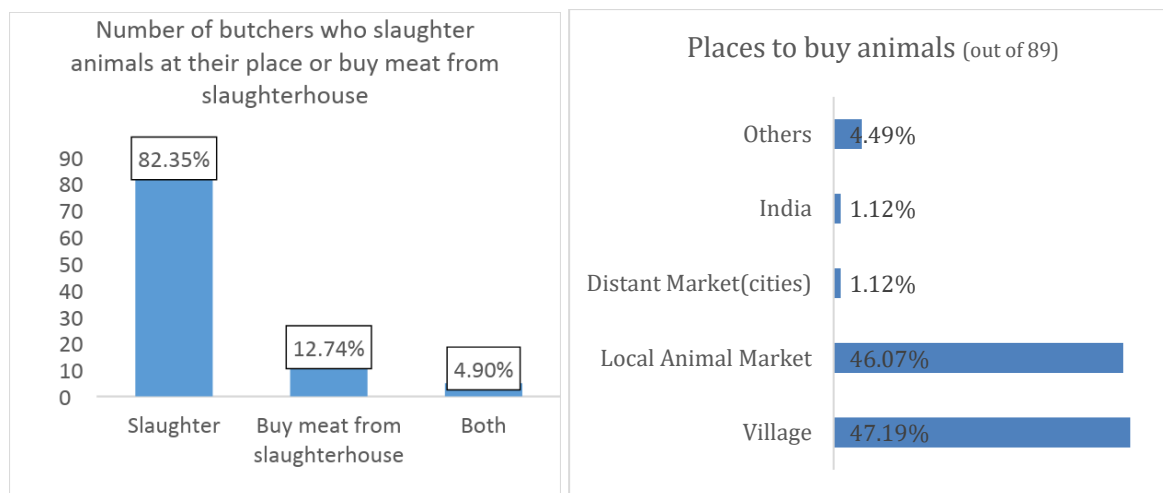


Figure 70. Slaughtering practices of businesses and places for buying animals

The most popular way of transporting animals for meat production, according to meat producers, is to cage them in vehicles followed by 'Other' methods which include hanging chicken from bicycles and motorcycles or carrying them. 6.74 percent ties them up in vehicles other than motorcycles.

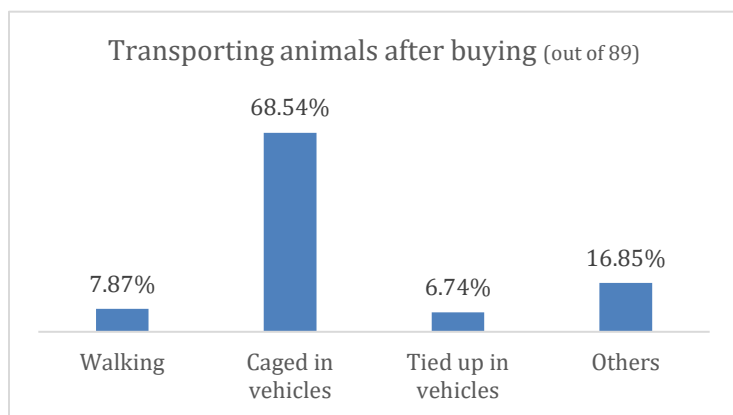


Figure 71. Methods of transporting animals for slaughter

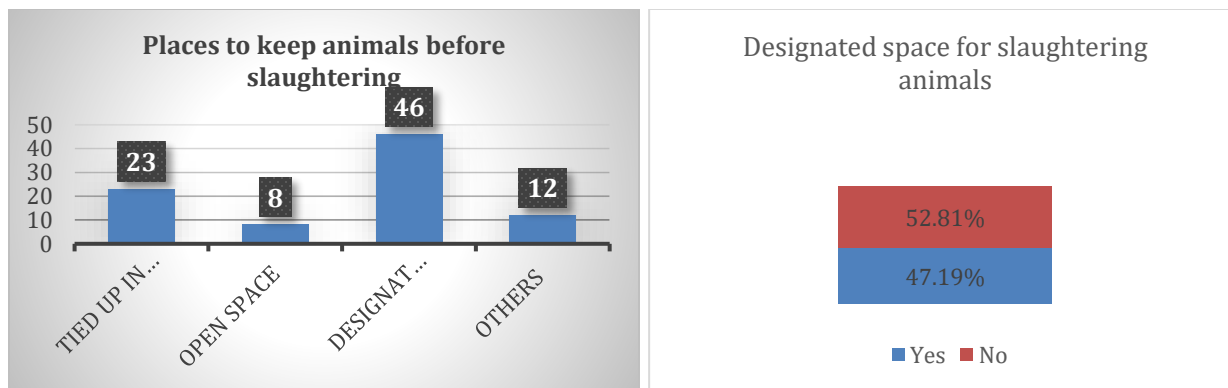


Figure 72.Places to keep animals before slaughter and status of designated space for slaughtering

When asked where the producers keep their animals before slaughtering, a little more than half say they have a designated space for these animals. However, observation learned that the designated place is just an open space beside their shops. 26 percent of butchers tie the animals up in their shop premises while 9 percent provides them an open space.

The data below shows that most butchers believe that animals are sentient beings which indicates that they know how to slaughter an animal without causing unnecessary pain. In reality inhumane slaughter techniques are widespread, with only 1 percent of animals killed using stun guns. When asked about the reasons for using traditional slaughtering techniques, most said to save costs while others consider them as religious, rendering the meat 'pure'.

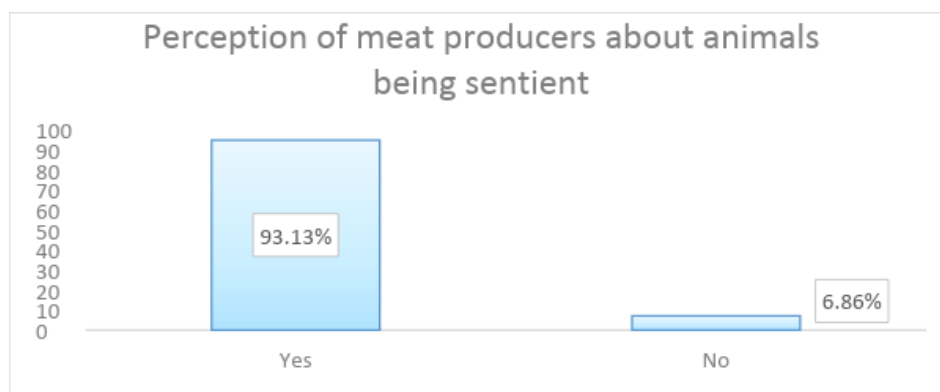
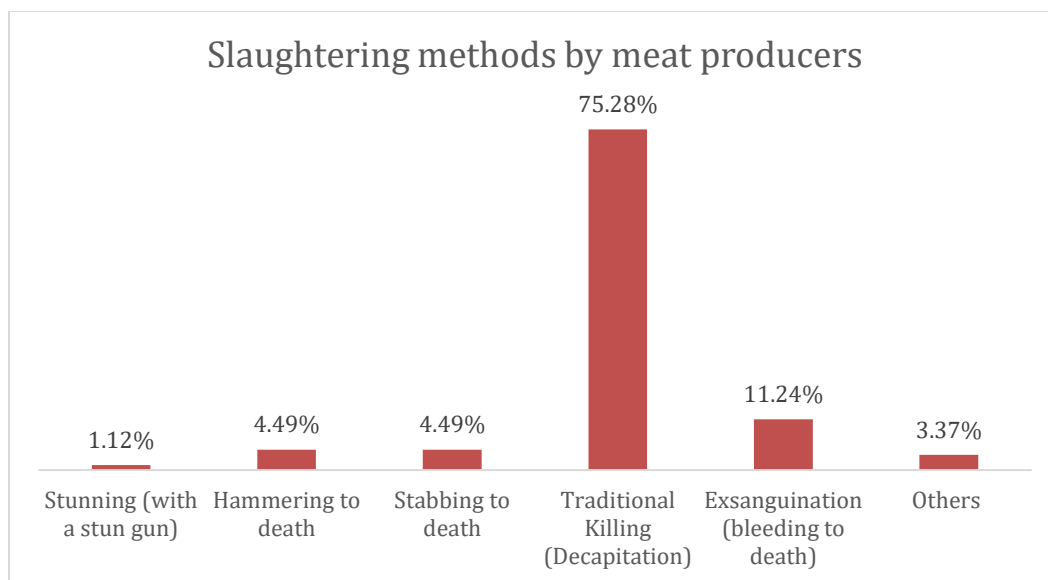


Figure 73.Perception of meat producers on animals being sentient beings



*Figure 74. Slaughtering methods practiced by meat producers*

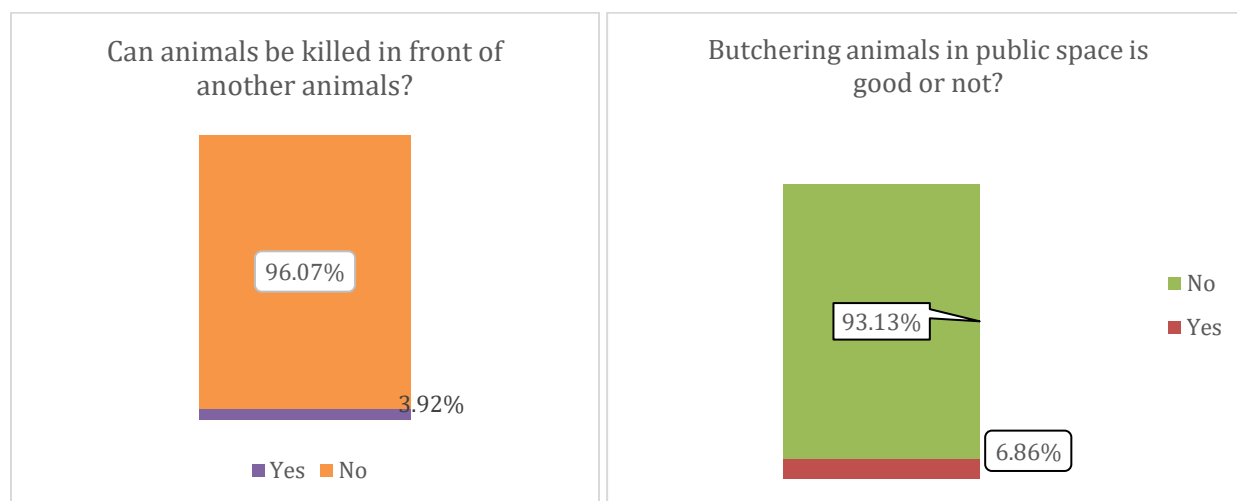
The chart shows that the most popular form of slaughtering animals is decapitating animals (75.28 percent), usually used for goats and chicken, by decapitating the animal in one blow. The second popular method is the ‘Halal’ exsanguination (extracting blood), generally used by the Muslim community. Here a certain nerve in its throat is cut halfway and the animal is left to bleed until death. ‘Other’ form of slaughtering includes slowly cutting the animals’ throat, also known as ‘*Retnu*’ in Nepali. Stabbing is generally used for pigs, by piercing its heart. Buffaloes are slaughtered through hammering it on the head. The most humane way, stunning, is used by only one meat producer, Machhapuchhre Cold Store and Meat Supplier in Pokhara.

### *Case Study: Slaughterhouse in Pokhara*

*Machhapuchhre Cold Store and Meat Supplier is one of the four 'slaughter slabs' in Pokhara which is partially funded by the government and one of the only two operating slaughterhouses in Nepal. The company started less than a year ago with a joint investment from four partners. The slaughter slab uses new technology and follows the provisions for animal welfare. The supplier deals with chicken only. The animals are stunned with electricity, rendering them unconscious, after which their necks are cut manually.*

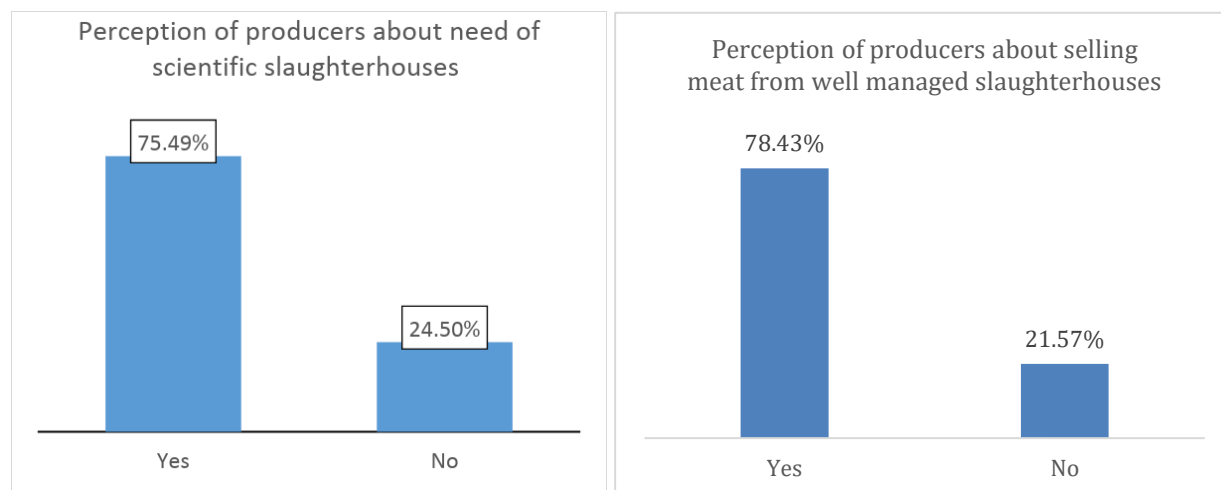
*The total investment for the project is 4 crores out of which 35 lakhs are provided by the government. Nearly 800-1000 chickens are slaughtered per hour and sent directly to the market. The new equipment consist of hanging machine, stunning machine and cleaning machine. The owner emphasizes the need to establish more slaughterhouses in Nepal so that open slaughtering is minimized. He notes that this type of slaughterhouse is profitable to both farmers and sellers and that the meat produced is clean and hygienic. The slaughterhouse only runs for an hour or two each day because many people still do not know about the place. They company contacts farmers directly and provides slaughtering services to them if required. The management lobbies with the government to implement laws to make slaughterhouses mandatory, supporting clean and healthy the cities. cities. The company aims to establish cold stores and is interested in trainings in packing and frozen meats. They said that if the training takes place, they can bring in new vehicles with cold chambers for market If successful, the management plans to buy a vehicle with refrigeration unit to maintain the cold chain. The slaughterhouse runs according to government standards.*

Two of the inhumane practices while slaughtering animals are killing them in front of other animals and doing so in public places. It is remarkable to see that almost all meat producers agree that both are incorrect. The respondents however do not practice what they preach, as killing generally takes place in full view of customers and other animals.



*Figure 75. Perception of meat producers on killing animals in front of other animals and in public places*

When asked if they think there is a need for proper, scientifically operated slaughterhouses, most meat producers (78 percent) replied positively and agreed to buy the 'healthy' meat produced by such operations.



*Figure 76. Perception of meat producers on need of slaughterhouses and selling meat from such slaughterhouses*

Out of 102 meat producers, only half use a refrigerator/freezer to store the meat. None of the sellers has equipment to vacuum pack the meat. Among those without fridge or freezer, 28.43 percent tries to sell the meat on the day of slaughter and 23.53 percent simply keeps the meat out in the open.

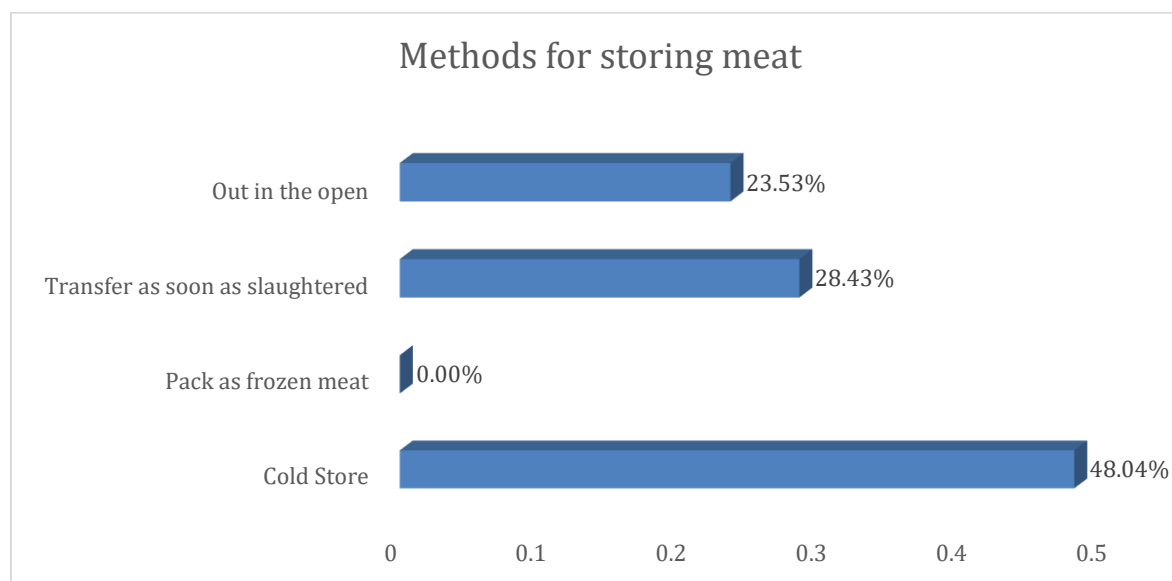
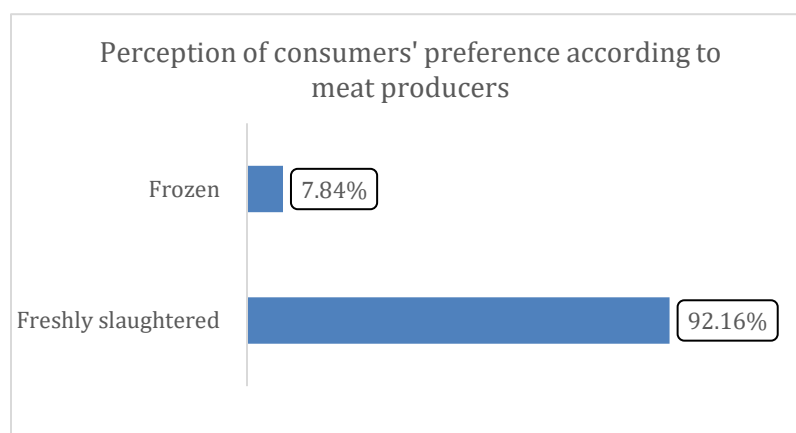


Figure 77. Methods used by meat producers for meat storage



When asked about the demand of frozen meat, 92.16 percent of producers say that most of their consumers want fresh (unfrozen) meat. Only 7.84 percent believes that their customers prefer frozen meat.

Figure 78. Preference of consumers' preference of meat according to meat producers

The majority of meat producers have no access to modern equipment. Only one meat producer uses stunning equipment, while 4.90 percent of producers have hair removal machine, used for chicken and 2.94 percent purchased a large size freezer.

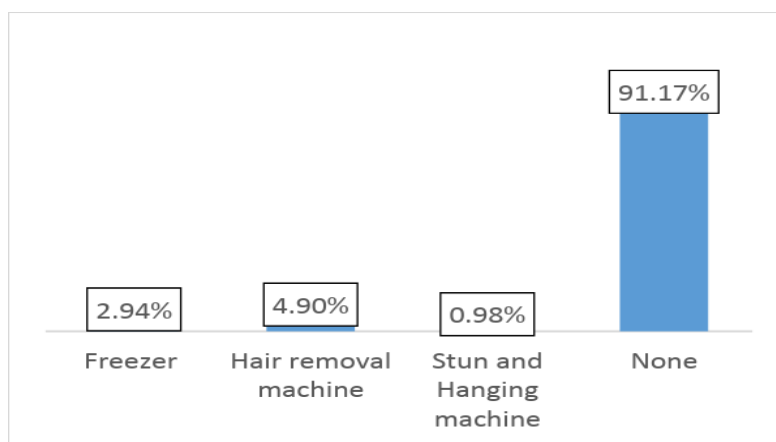


Figure 79. Types of modern equipment used by meat producers

Only few meat producers transport meat, as they sell it from their premises. Among those who do, most use rickshaws, bicycles and motorbikes, while a few use vehicles like trucks and tractors.

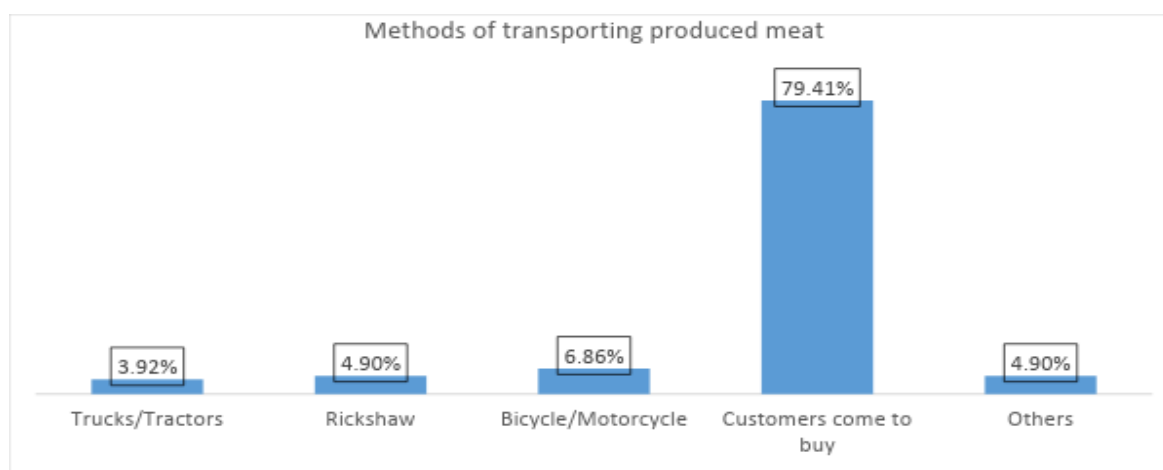
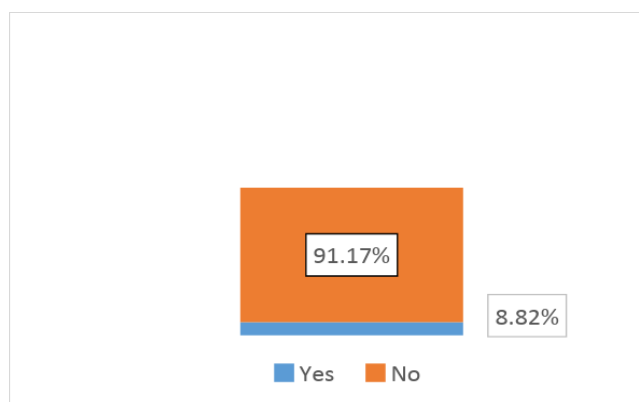


Figure 80. Methods of transporting produced meat

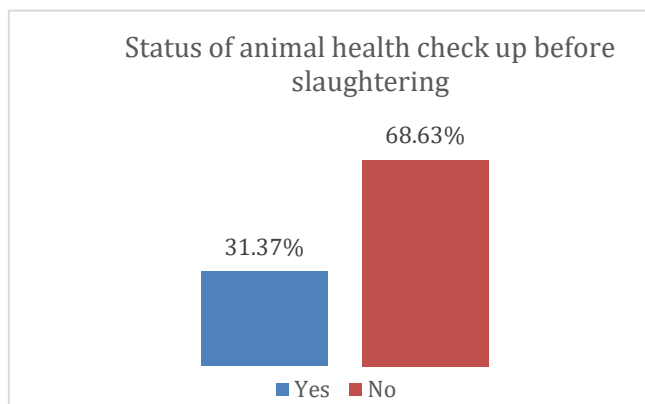
The vast majority of meat producers (91.17 percent) are unaware of policies regarding livestock/ meat and/or transportation.

Figure 81. Knowledge about policies acts on transportation of meat



and





Close to 70 percent of producers fails to conduct a health checkup of animals before slaughtering them.

Figure 82. Status of animal health checkup before slaughtering

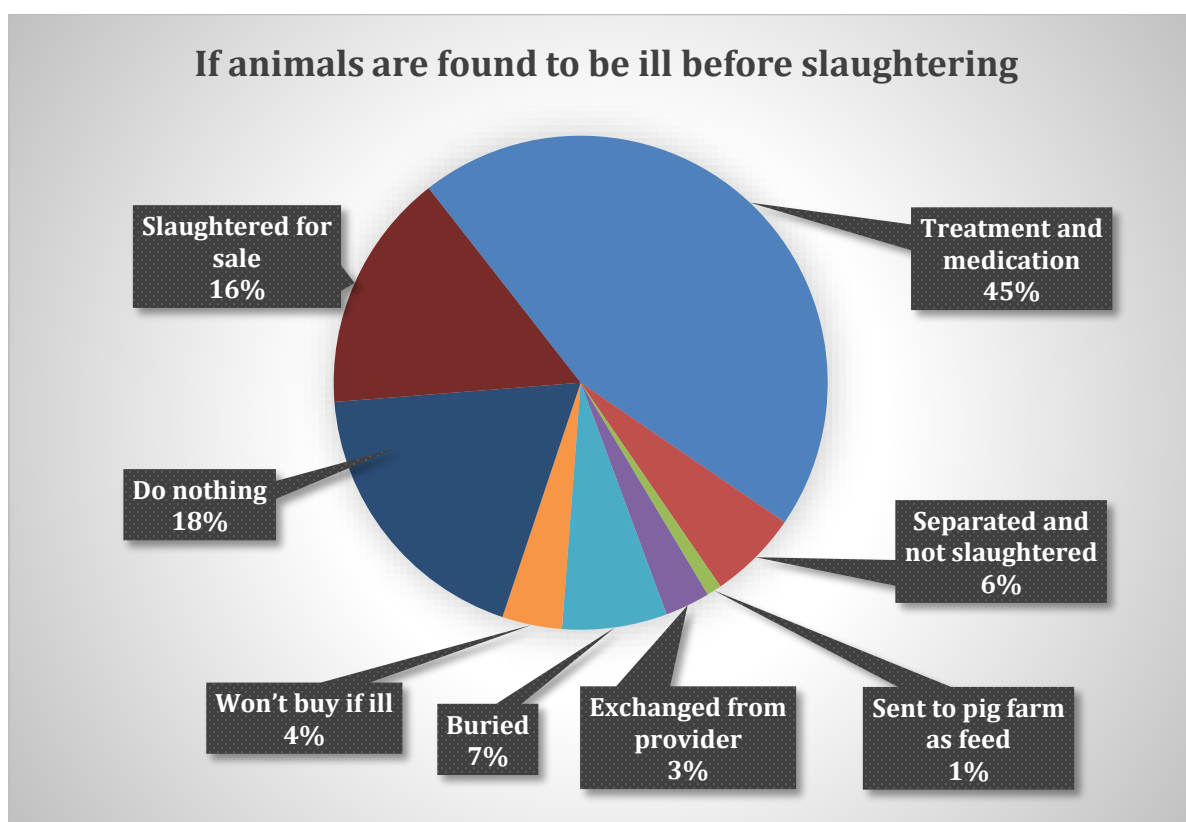


Figure 83. Response about if animals are found to be ill before slaughtering

When animals are found to be ill before slaughtering, 45 percent of producers say they will treat the animals. 16 percent say they will slaughter the animal and sell the meat while 18 percent say they will not take action, which means that they kill the animals.

When asked if they are ready to turn vegetarian, 90.19 percent of producers replies negatively.

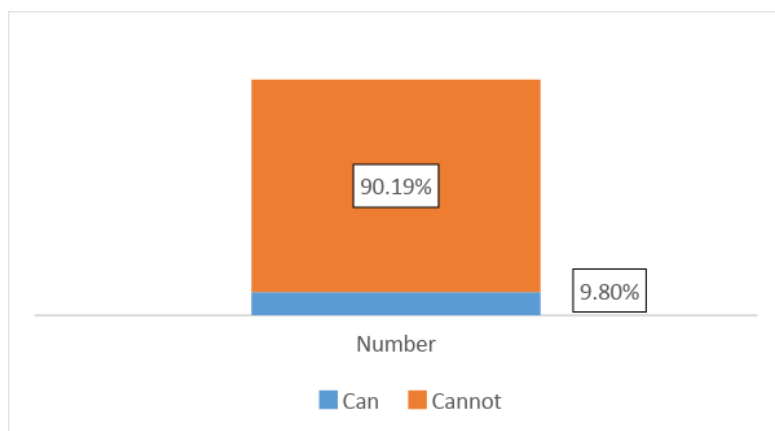


Figure 84. Perception of meat producers on becoming vegetarian

When asked for their reasons, most say they like meat and meat products, 28 say they cannot stop eating meat and 10 believe it is healthy. Only two producers eat meat for religious/cultural reasons. When asked about the reasons why they consider being a vegetarian, 5 among the 9.8 percent who replied positively say because it is healthier.

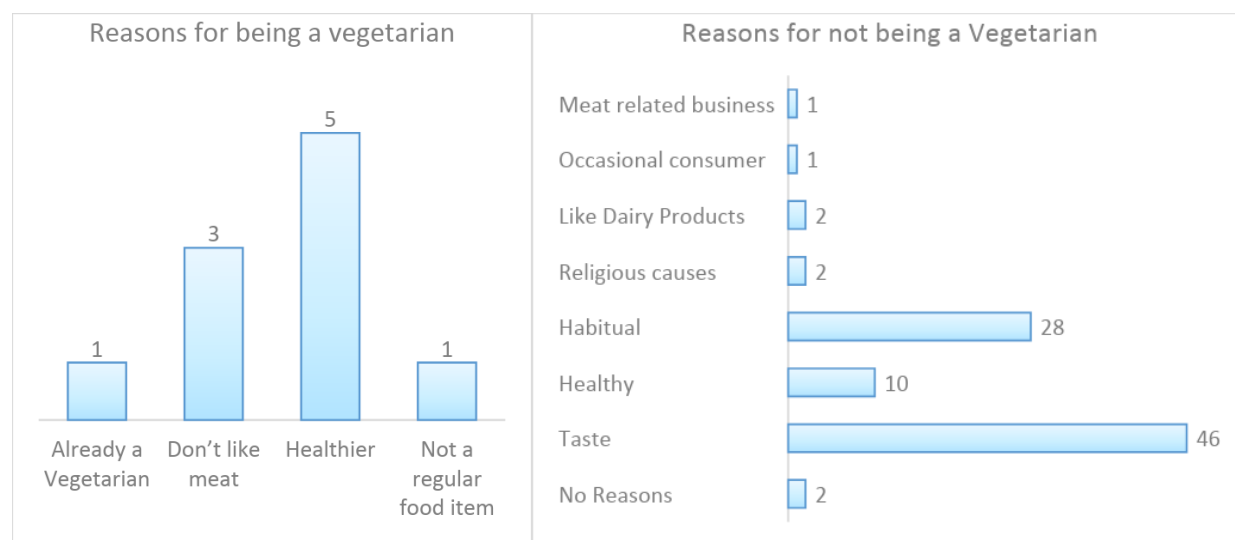


Figure 85. Reasons for being a vegetarian and not being a vegetarian

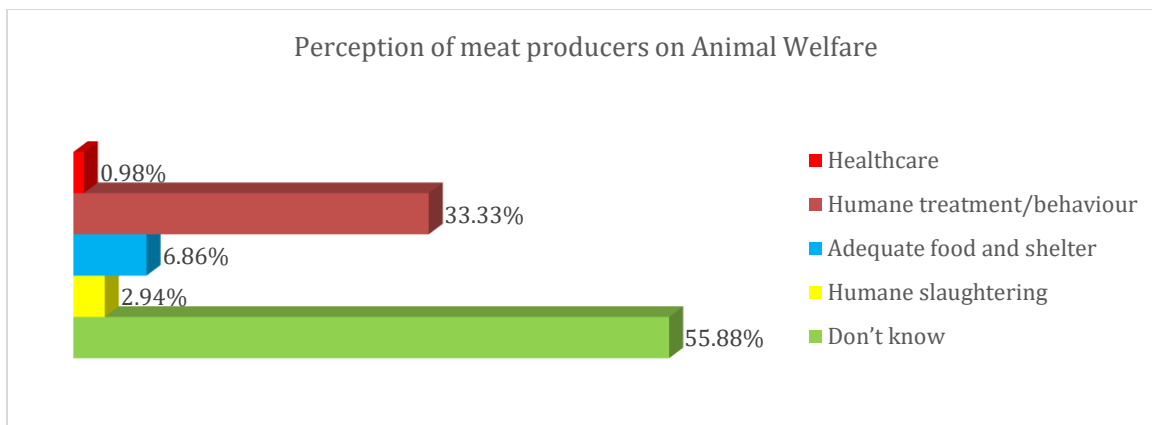
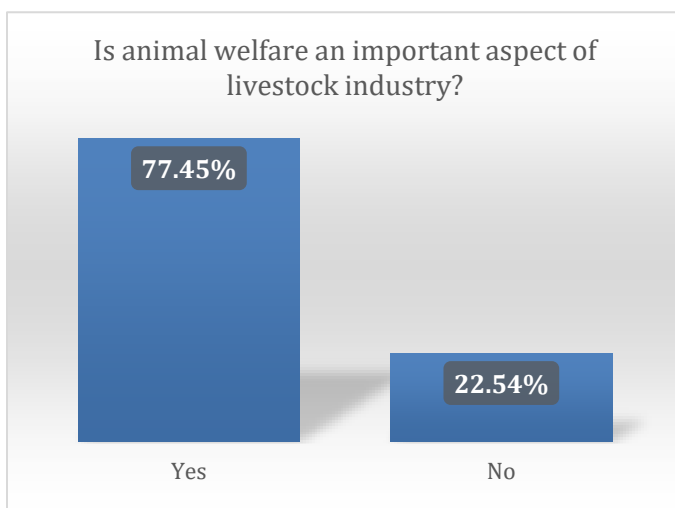


Figure 87. Perception of meat producer on animal welfare

The chart above shows the perception of meat producers on animal welfare. Over half (55.88



percent) do not know what animal welfare is. One in three interviews give different examples of showing humane behavior towards animals. 6.86 percent says animal welfare means adequate food and shelter, while 2.94 percent equals it to humane slaughtering. When asked if animal welfare is an important aspect of the livestock industry, the majority 77.45 percent) agreed that it is important.

Figure 88. Views of animal welfare an important aspect of livestock industry

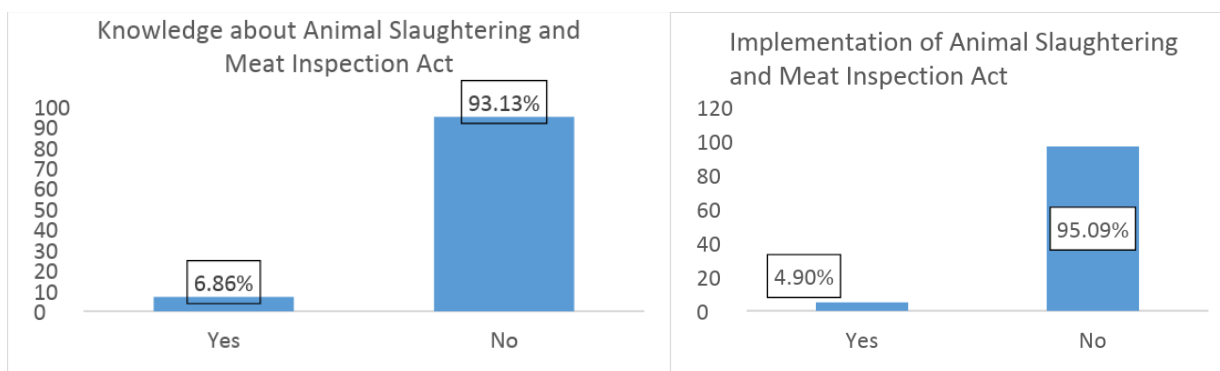


Figure 89. Knowledge and implementation of animal slaughtering and Meat inspection Act

The vast majority of interviewees (93.13 percent) is unaware of the Animal Slaughtering and Meat Inspection Act. Only 4.90 percent believes they have been implementing the act in their business.

Among the ones who implemented the rules, 42.86 percent say that they have a separate space for killing animals, 28.57 percent has proper freezing facilities, 14.29 percent adequate water facilities and 14.29 percent registered their business.

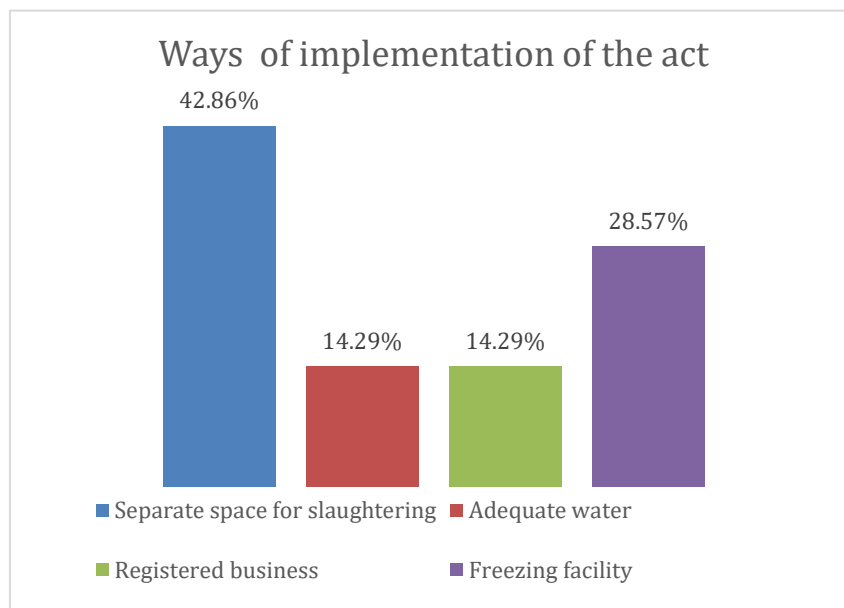


Figure 90. Ways of implementation of the act

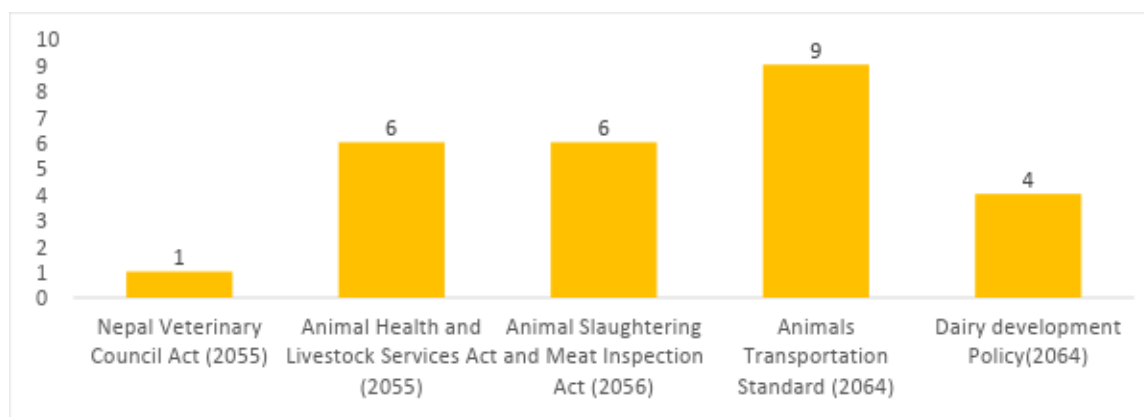


Figure 91. Awareness of different policies on animal welfare and development

21 out of 102 meat producers also rear animals for meat production. 52.38 percent of producers raise chicken while 28.57 percent rear pigs.

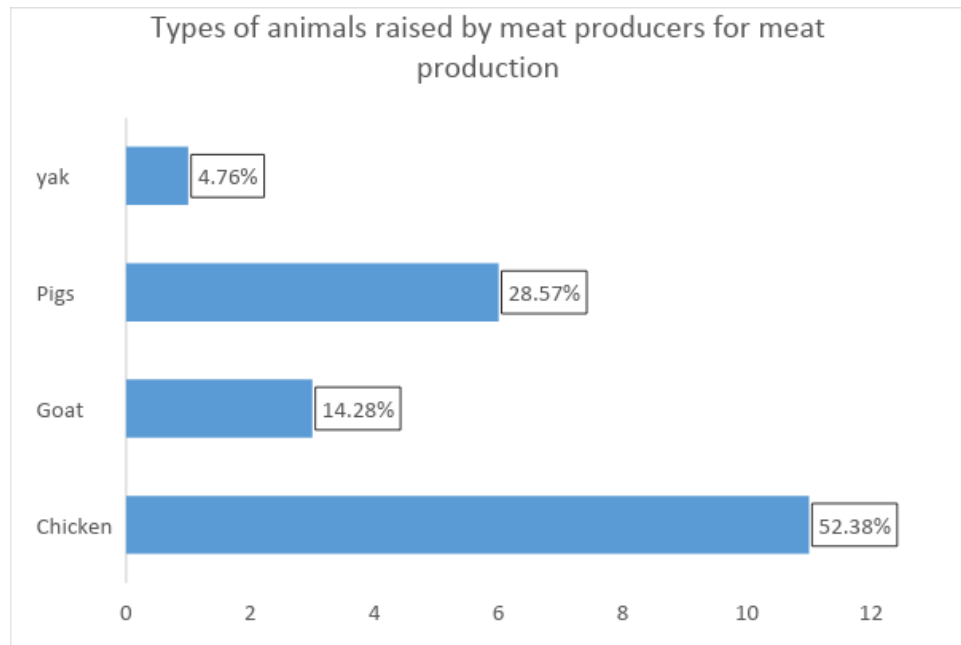


Figure 92. Types of animals raised by meat producers for meat production

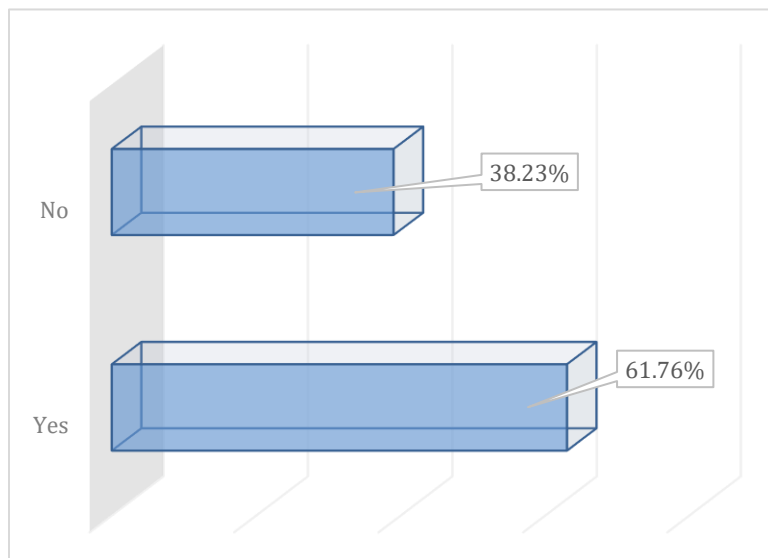
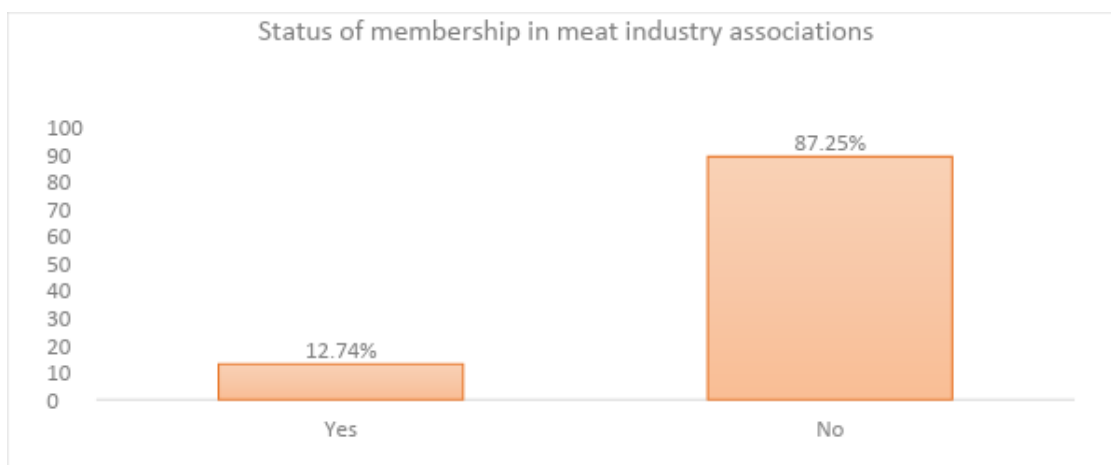


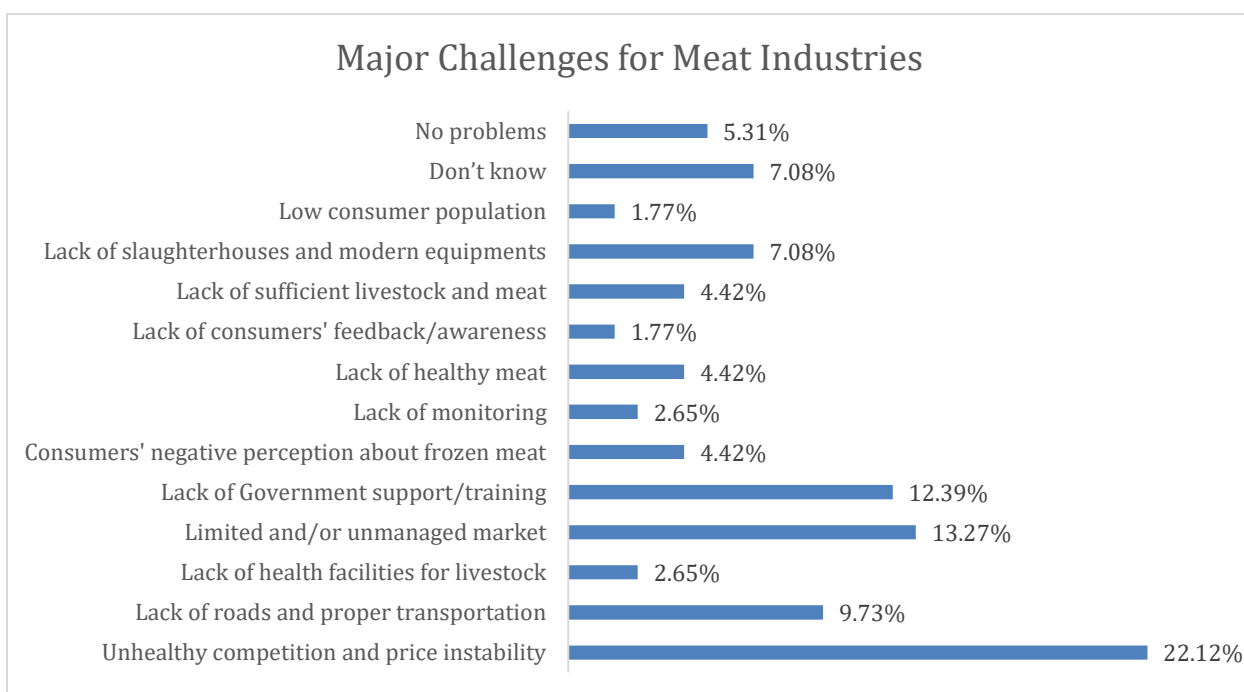
Figure 93. Status of regular inspection from Govt. and /or other organizations

When asked if there have been regular inspections of their businesses by either government authorities or other related organizations, 61.76 percent replied positively. This points to the fact that although the concerned authorities monitor the meat business, they are unable to implement the acts and policies in the industry.



*Figure 94. Status of membership in meat industry associations*

12.74 percent among the respondents are associated with some kind of meat industry organization or association.



*Figure 95. Major challenges for Meat industries*

Talking about challenges in the meat industry, one in five regard unhealthy competition and price instability as a major challenge. Second most talked about challenge is limited and/or unmanaged market (13.27 percent) with haphazard slaughtering and selling of meat without any implementation of the rules.

When asked about suggestions to improve the current meat industry, the respondents gave the following feedback:

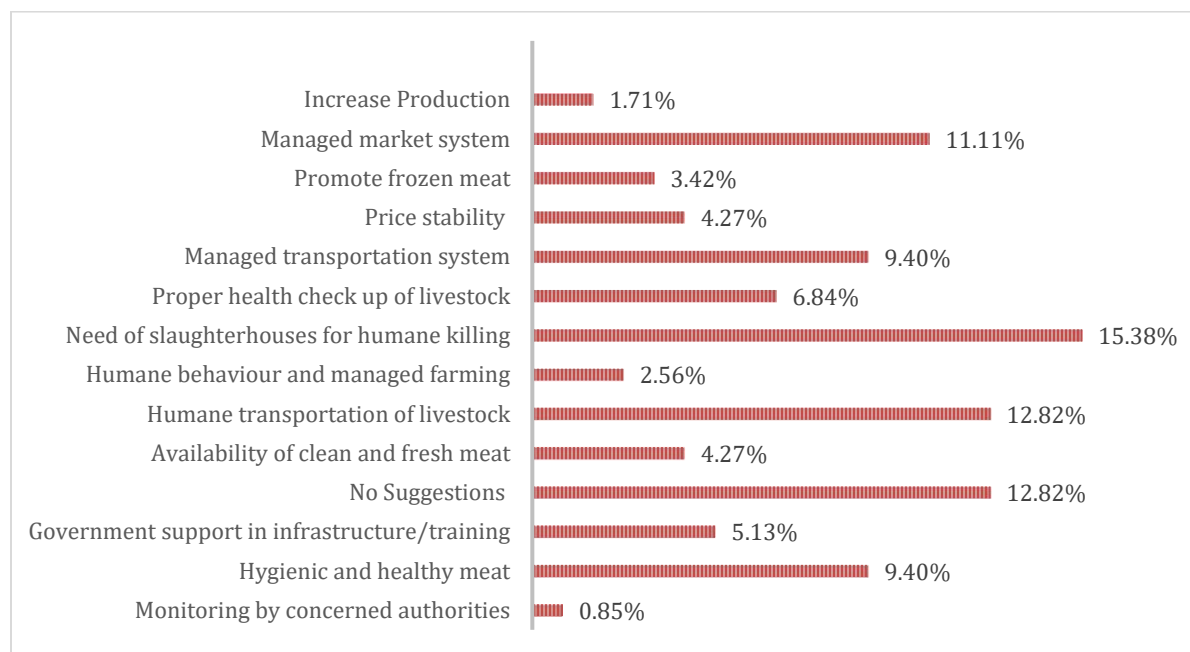


Figure 96. Suggestions from meat producers for industry management

Surprisingly, 15.38 percent of the producers mention the need of proper slaughterhouses and humane slaughtering of animals. 12.82 percent say that transportation of animals should be humane while 11.11 percent wants a well-managed market system and 9.40 percent a well-managed transportation system. Another 9.40 percent sees a need of healthy and hygienic meat in the market. Humane farming system comes at 2.56 percent and price stability of meat came at 4.27 percent.

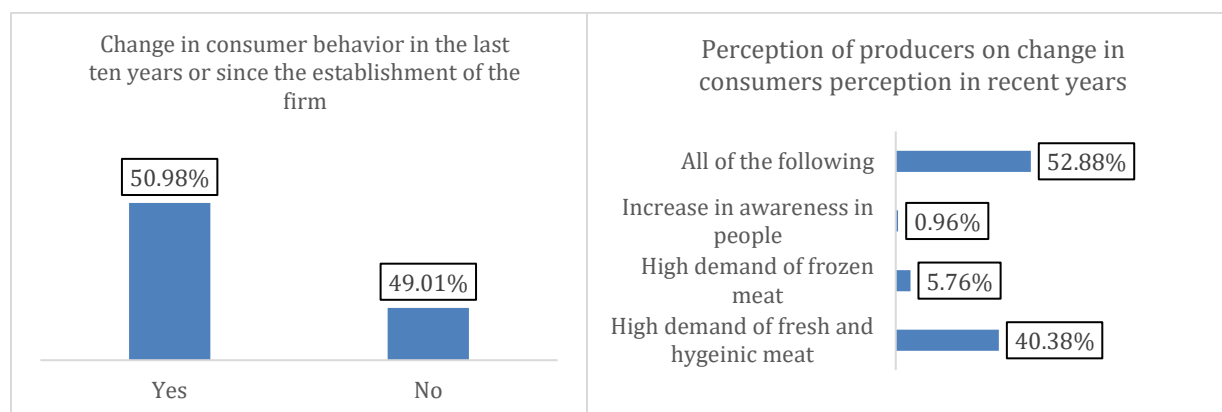


Figure 97. Consumer behavior of change in last 10 years and the perception of producers

Half of the producers feel that there has been a change in consumers' awareness or preference over the past ten years. 40.38 percent thinks there has been an increase in the demand of fresh and hygienic meat. 5.76 percent believes frozen meat is gaining popularity.

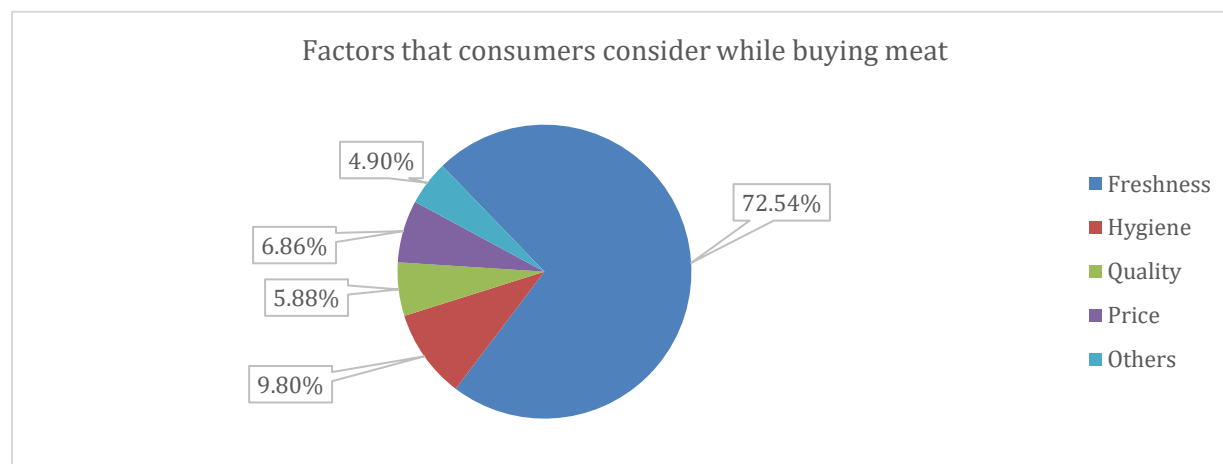


Figure 98. Factors that consumers consider while buying meat

Among the factors considered by consumers when buying meat, 72.54 percent of producers believe the highest priority is the freshness of meat. 9.80 percent say the consumers look for a clean environment. Price of the meat comes third and the quality of meat fourth. This shows that the consumers will buy cheap meat even if they have to compromise in its quality.

#### **Case Study: Yaseen Fresh House - Saptari**

50 year old Mohammed Yaseen has been in the meat business for more than a decade. Located at ward no. 3 of Rajbiraj in Saptari district, Mr Yaseen sells an average of 60 kg of meat every day. He registered his business only two years ago. The meat seller handles all the aspects of his business on his own, including buying chicken, slaughtering, cleaning and selling.

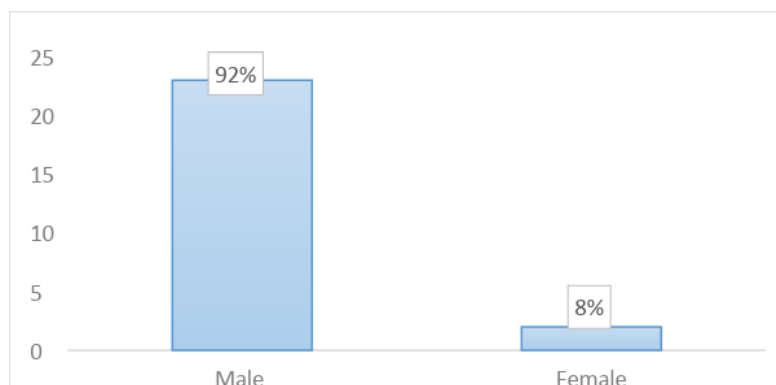
Mr Yaseen has a small farm where he rears chicken. He transports the chicken with his bicycle every day. Being a Muslim, the meat seller uses the 'Halal' method while slaughtering the chicken. Though he thinks that modern technology is important in every aspect of the industry, Mr Yaseen is not ready to sell meat which is not Halal. He further says that the Muslim community is very fond of eating meat, which plays an important role in functions and cultural programs.

Like most other meat shops in the area, Mr Yaseen's shop is a small one with no separate space for storing and slaughtering chicken. He keeps the chicken right besides the place where he slaughters them and displays the meat outside the shop with no attention to cleanliness and hygiene. During our visit, several customers bought meat from the shop but complained about the swarming flies or the foul smell in the shop. When asked if the government officials monitor the meat shops, the owner responded with a yes, although not regularly. Yaseen further added, "All the customers need is inexpensive meat. The ones who care about hygiene do not come to my place to buy meat".



#### 4.2.4 Government Authorities

In the course of the survey, we interviewed 25 government representatives, the majority of whom are from the local and provincial levels of Government. Only two percent were female,



indicating the low involvement of females in the activity of policy making and its implementation.

When asked about the majority animals reared in their area, 22.22 percent say buffalo, followed by cow, chicken, pig and sheep.

Figure 99. Gender distribution of policy makers

The preference for rearing animals is determined on the basis of food availability, climatic adaptability, space allocation and dietary preferences. For instance, in the Himalayan region like Mustang, Yak, Nak, and Himalayan goat is chosen for animal husbandry. The proportion of animals in the following section is calculated from the aggregate number of animals reared in all the districts.

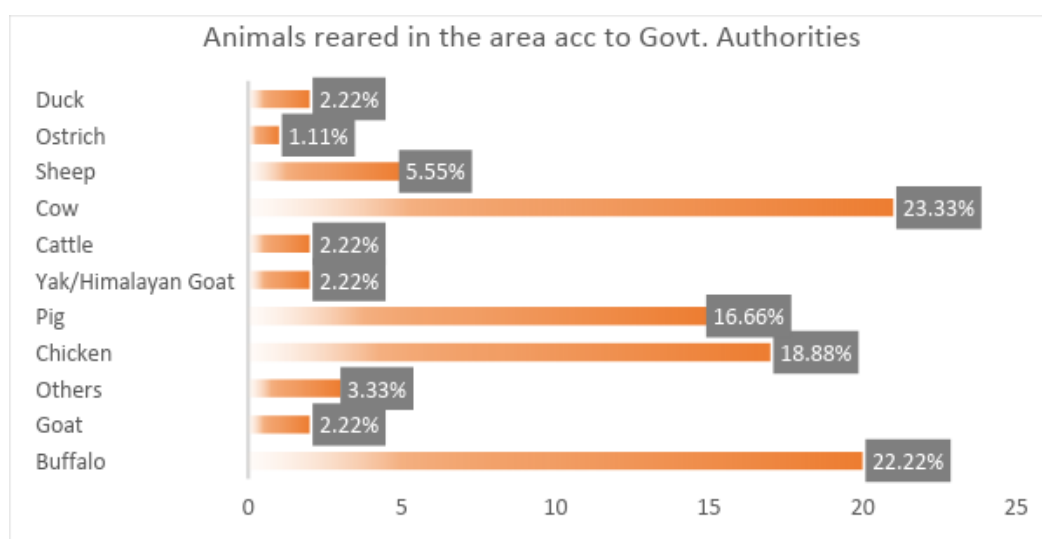


Figure 100. Animal reared in the area according to policy makers

According to the authorities, most farmers follow semi-traditional culture followed by mixed system, traditional and modern with 44 percent, 36 percent, 16 percent and 4 percent respectively.

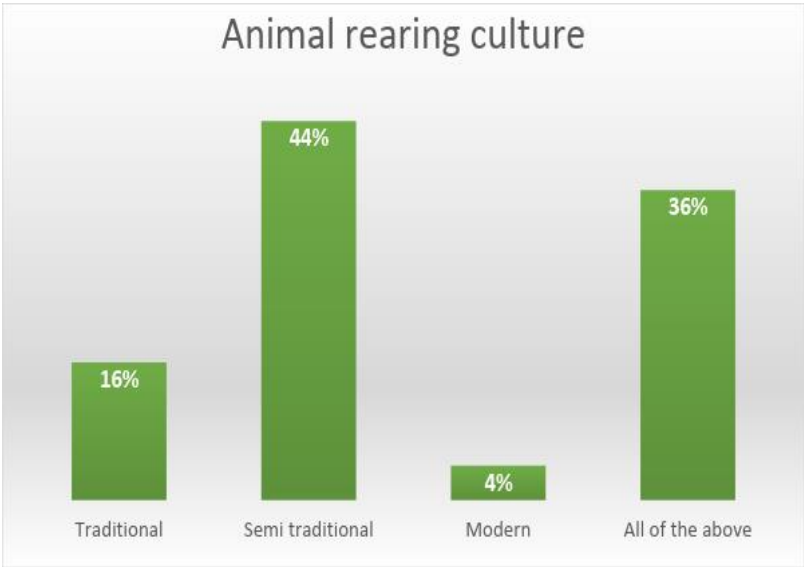


Figure 9 Animal rearing culture

While traditional farming style is still prevalent in most areas, farmers are gradually inclined towards adopting semi-traditional methods of farming.

60 percent of policy makers who are responsible for the timely inspection of the animal farms, conduct monthly inspections, while 36 percent inspect thrice a year and 4 percent twice a year.

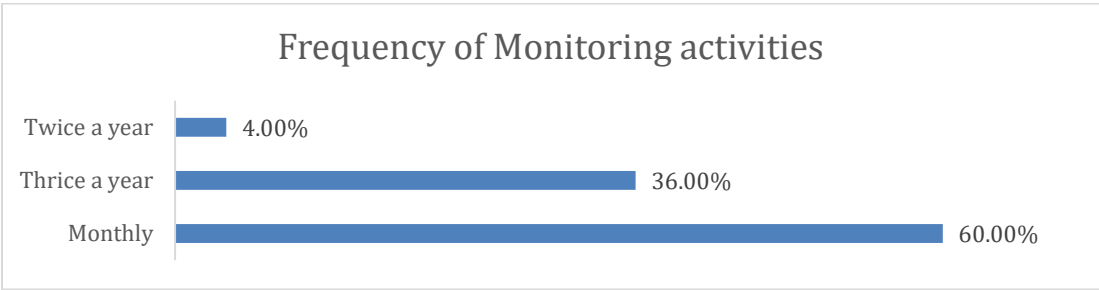


Figure 102.Frequency of monitoring activities

The policymakers show a positive response towards the adoption of modern and scientific methods and technologies for livestock development with 80 percent showing their support. According to the respondents, the main area where such modern and scientific methods are used are Training and Health Services in which farmers are trained about different aspects of livestock development and health services are provided according to the needs of the farmers. Besides, 27 percent of government authorities indicated awareness programs as an area where modern technologies are adopted, 18 percent financially supports farmers who wish to embrace newer technologies and 12 percent supports large scale farming.

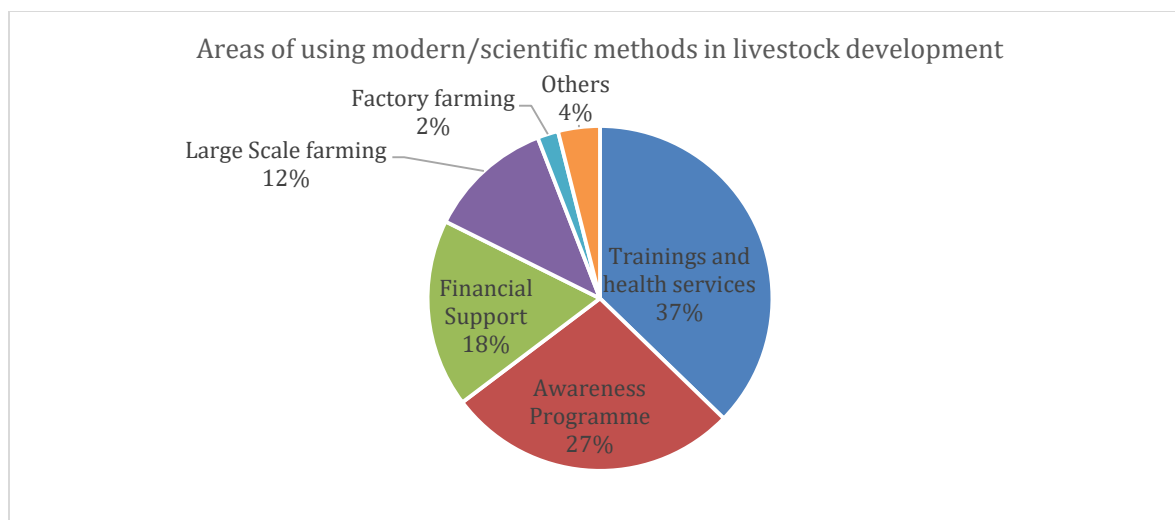


Figure 103.Areas of modern scientific methods in livestock development

When asked if animal welfare is addressed while implementing modern technologies, 76 percent responded positively.

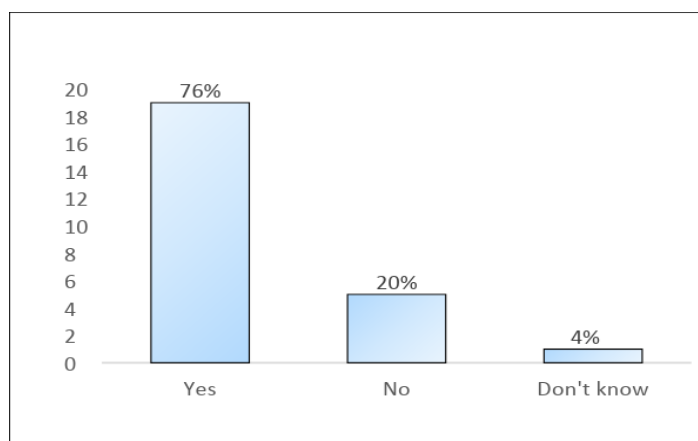
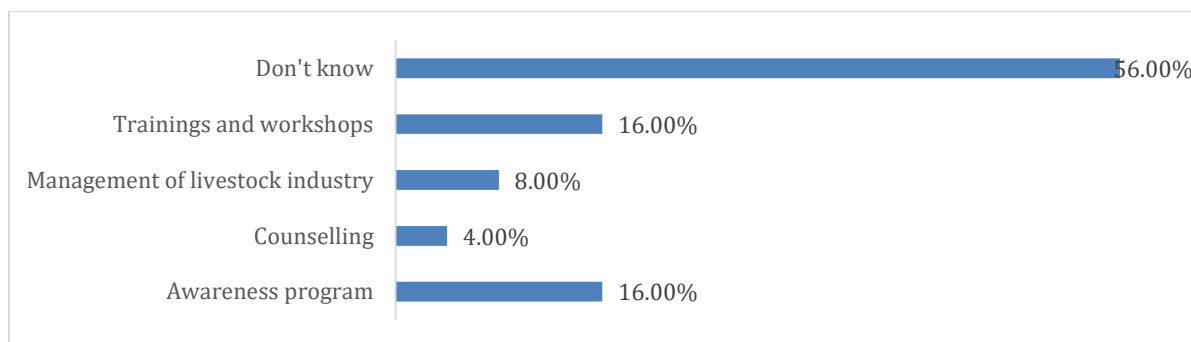


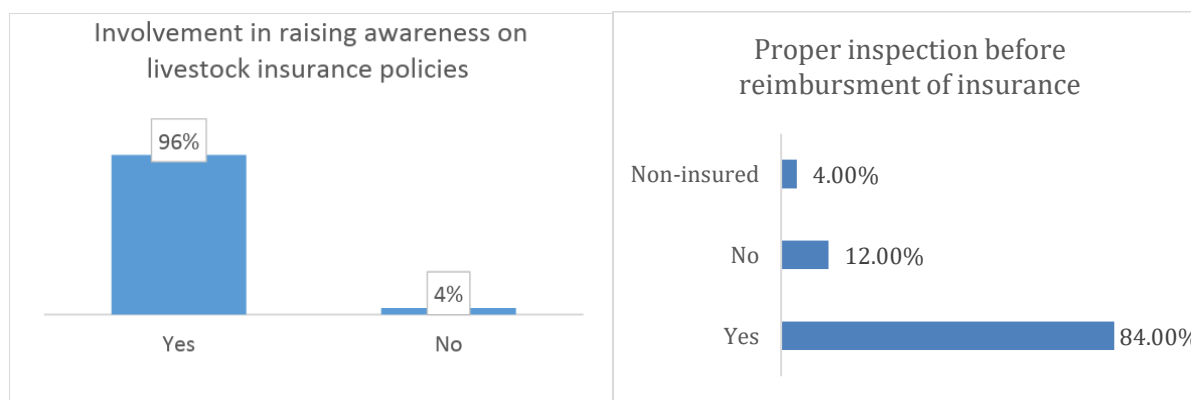
Figure 104.Status of animal welfare issue being raised

Policy makers are well aware and empathetic towards the issue of animal welfare. The majority commented that animals are subject to cruelty and need immediate relief and rescue from such inhumane activities. The policy makers further state that viewing animal husbandry merely from an economic viewpoint often leads to negligence of animal welfare. This indicates that local level policymakers are ready to improve animal welfare conditions provided they are fully aware of the policies and receive effective training.

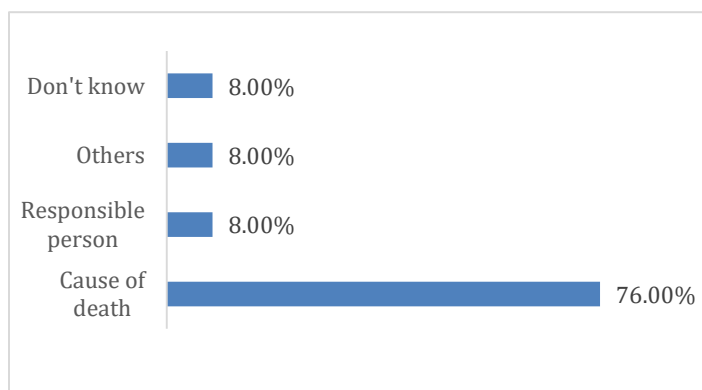


*Figure 105. Approaches to animal welfare in introducing new technologies*

When asked about how Animal Welfare has been implemented, the government authorities replied with 56% saying that they do not have any idea, 16% each said through trainings and workshops and Awareness Programs, 8% said they're helping manage the livestock industry and another 4% said they were counseling farmers on issues of Animal Welfare.



*Figure 106. Involvement in raising awareness on livestock insurance policies and proper inspection before reimbursement of insurance*



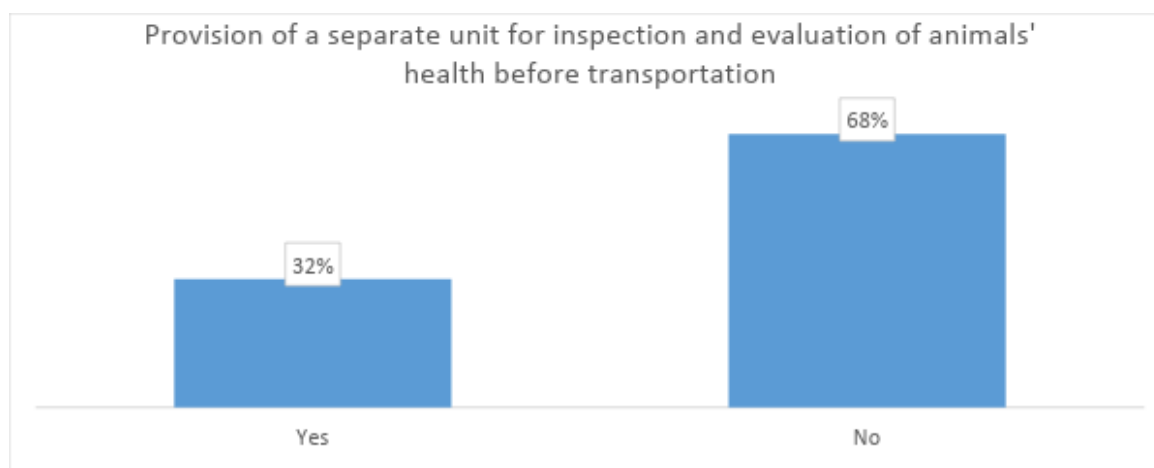
Another major government facility for farmers is the insurance policy. When asked if they have been regularly informing farmers about the policy, 96% said they have. 84% of them said that they go through vigorous process to reimburse the insurance claim while 12% of them said that no much inspection is done. One Animal

*Figure 10. Consideration to take during inspection*

Development Office in Kaski said that there are no animals insured in the area till date.

Major things taken into consideration included cause of death with 76 percent, responsible person with 8%, others with 8% and 8% did not know.

Similarly, about the provision of a separate department of inspection and evaluation of animals' health before transportation for meat production, 32 percent responded with a yes and 68 percent with a no. There is a huge gap in this aspect of policy making and implementing. Without the provision of a separate department for inspection, it is definitely difficult to implement policies in order to generate effective results.



*Figure 108. Provision of a separate unit for inspection and evaluation of animals' health before transportation*

Upon asked whether the inspection activity is fully functional or not, 44 percent responded with a yes, 28 percent with a no, and 28 percent with don't know. It shows that policy makers need to be more serious about the situation as well as develop more approaches towards livestock development and animal welfare.

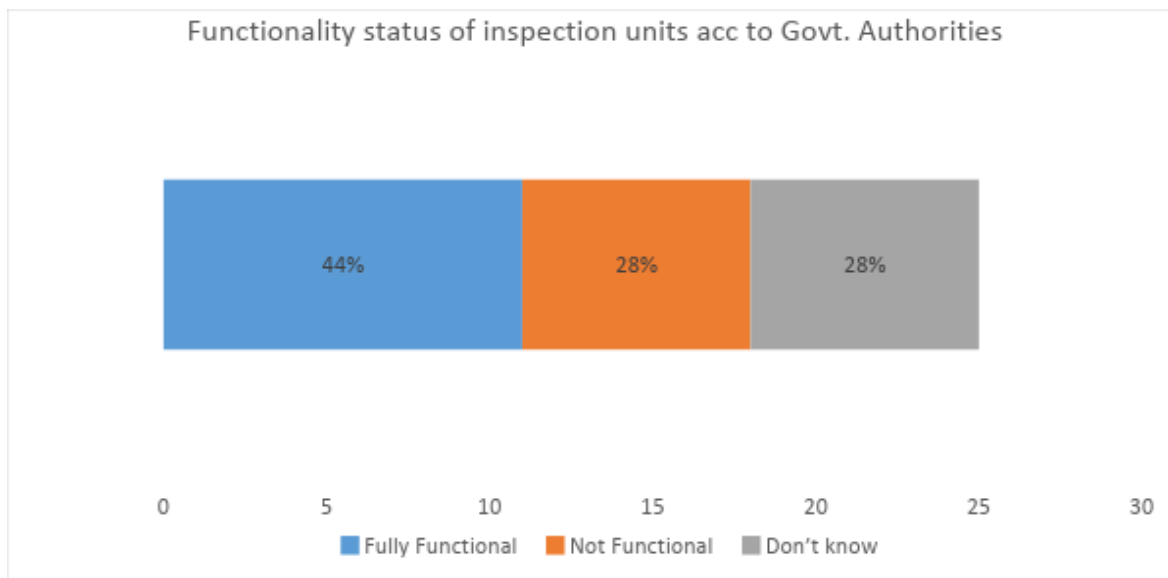


Figure 109. Functionality status of inspection units according to Govt. authorities

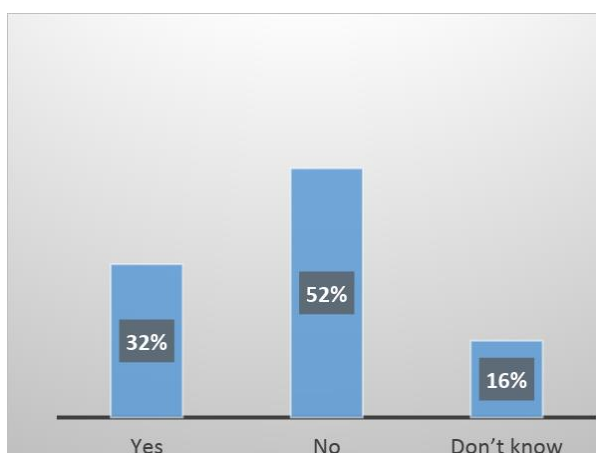


Figure 110. Situation of animal health and use of livestock services act

The standard procedure for Animal Health and Livestock Services Act(2000), has been followed by 32 percent of the responding policymakers , not followed by 52 percent of them and 16 percent aren't aware of the act. This indicates a relatively lower implementation even though a majority are aware of the act.

Similarly, 36 percent follow Animal Transportation Standard, 2064, 56 percent do not follow nor implement and 8 percent are not aware about the Standard. There is a disarray in the knowledge and implementation of the Standard.

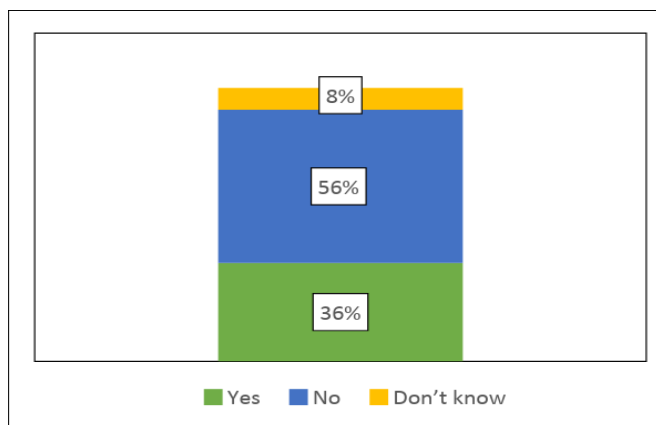


Figure 111. Animal Transportation standard is being followed

*“There is lack of proper human resource in the areas of quarantine and transportation of livestock sector. During my stay in the Indian Border area of Nepal, I have even seen that the agents in the buffalo transportation sector were runaway criminals from India. No one could speak when the animal welfare rules were broken because they were afraid. And we had no proper security forces to be able to confront him. We were helpless.*

*- Government Authority (Department of Livestock)*

Regular inspection and monitoring of slaughterhouse has been done by 46.15 percent of the policymakers, and not done by 50 percent of them. These aspects of slaughterhouses comprise of cleanliness, meat production (quantity), meat production (quality) and animal health.

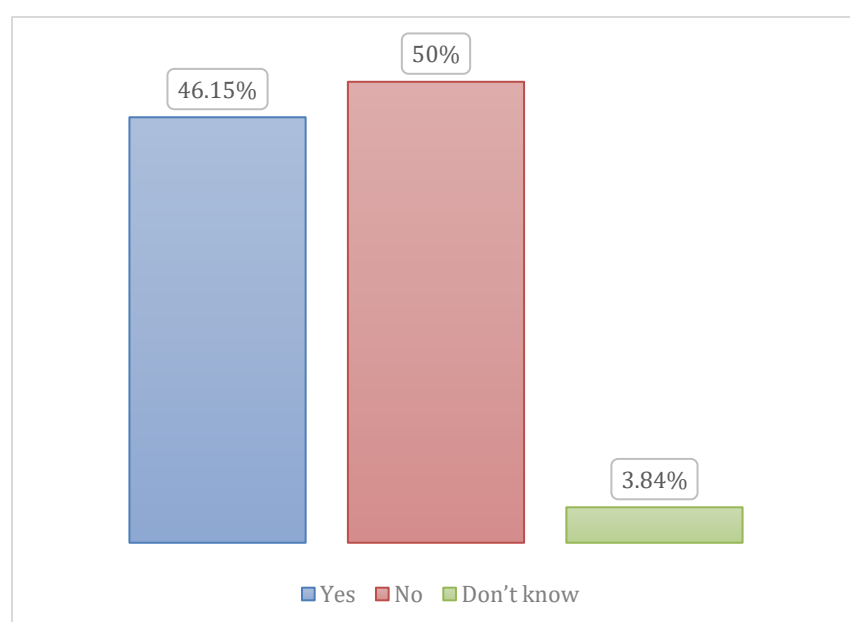
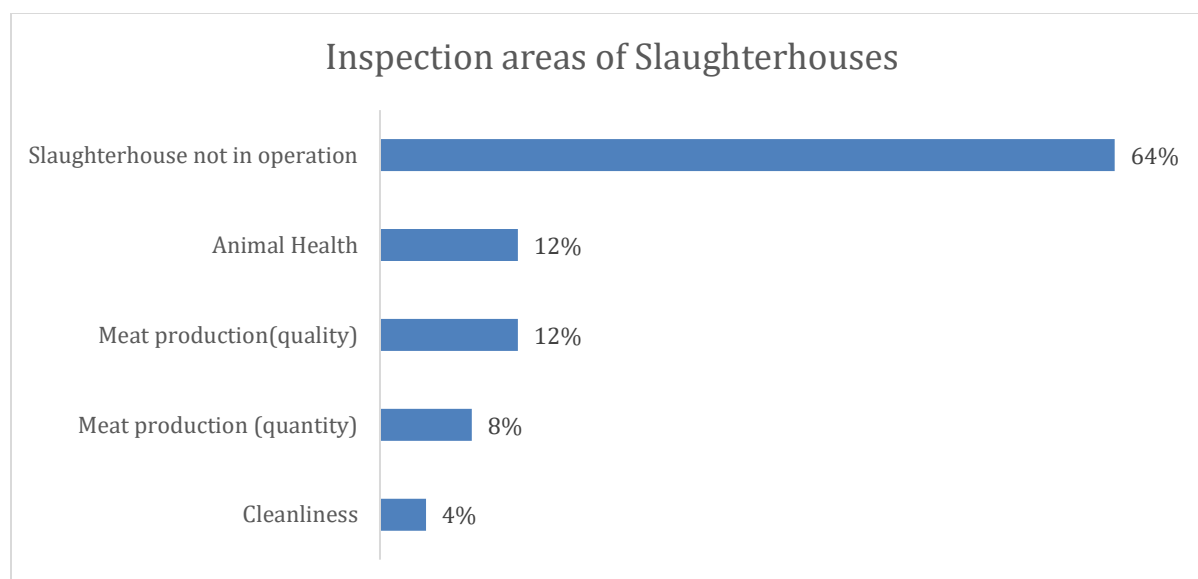
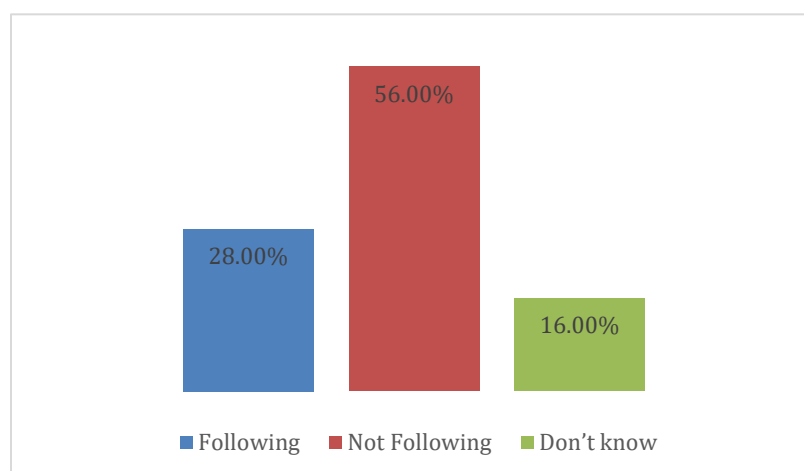


Figure 112. Regular monitoring of slaughterhouse is being done



*Figure 113. Inspection areas of Slaughterhouses*

Among them, 64 percent replied that slaughterhouses are not in operation, 12 percent focused on the quality of meat as well as animal health each, 8 percent on the quantity of meat produced, and 4 percent on the hygiene and cleanliness of meat. However, rather than a general inspection a more scrutinous examination of animal rearing culture, practices and policies is necessary.



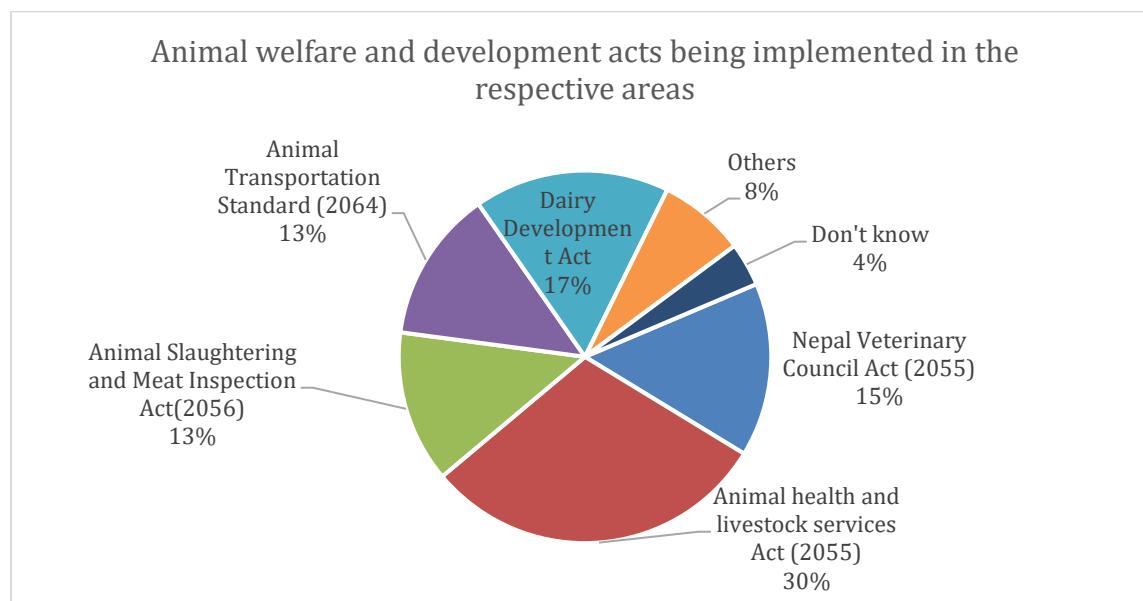
When asked about whether the slaughterhouses follow the Slaughterhouse and Meat inspection Act or not, only 28 percent answered a yes and the rest 14 percent and 4 percent with a no and don't know.

*Figure 114. Perception of Govt Authorities on Slaughterhouses following the Slaughterhouse Act*

Among the various acts being formulated, Animal Health and Livestock Services Act (2055) has been implemented by 30 percent, Nepal Veterinary Council Act (2055) by 15 percent of the



policy makers, Animal slaughtering and meat inspection act (2056) by 13 percent only, Dairy Development Board Act by 17% and Animal Transportation Standard (2064) by 13%. 4% of them said they did not know about what policies are being implemented and 8% said others. It is vivid that the policy makers need to be updated about policies and acts so that they can implement them properly and form a culture of being accountable for their actions.



*Figure 115. Animal welfare and development acts being implemented in the respective areas*

Scientific breeding practices is another necessary aspect for livestock development. In this context, 96 percent of the policy makers responded that there has been efforts to promote scientific breeding practices such as: animal food facility by 8 percent, animal insurance provision by 8 percent, medical facility by 12 percent, animal shelter management by 12 percent, counselling and motivation rendered by 8 percent, technical assistance by 12 percent, and skill-oriented programs and trainings by 28 percent of the total respondents i.e. policy makers.

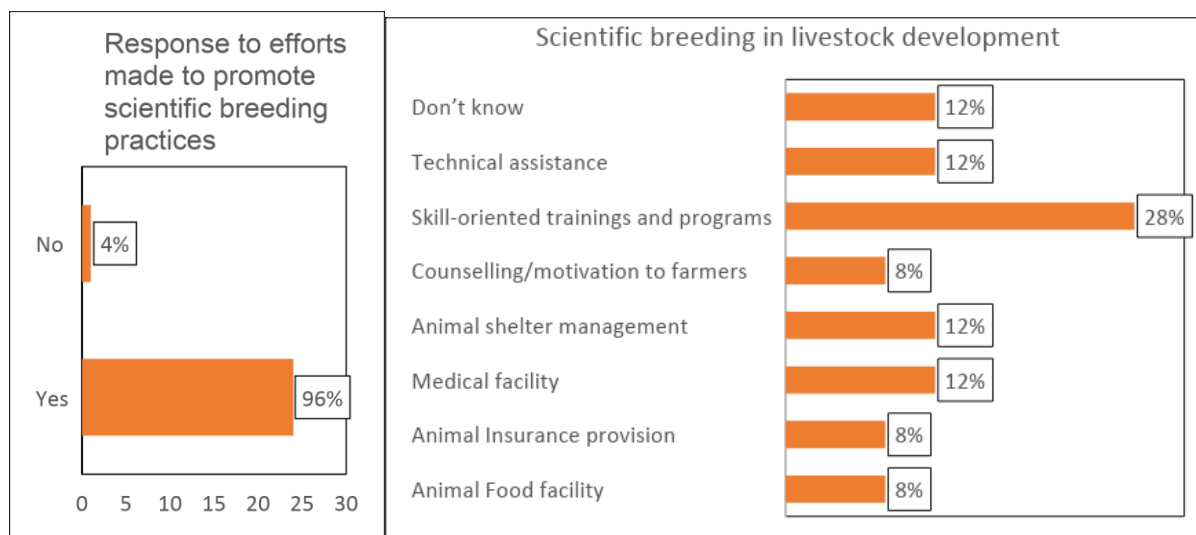


Figure 116. Response to efforts made to promote scientific breeding practices and practice of scientific breeding in livestock development

68 percent of the respondents replied that animals have been treated humanely in their area and 32 percent do not think so. While policymakers are themselves aware and empathetic about the existing situation of animals, they are ardent to spread their opinions to the other stakeholders. This signifies a need to put efforts for proper communication and information dissemination.

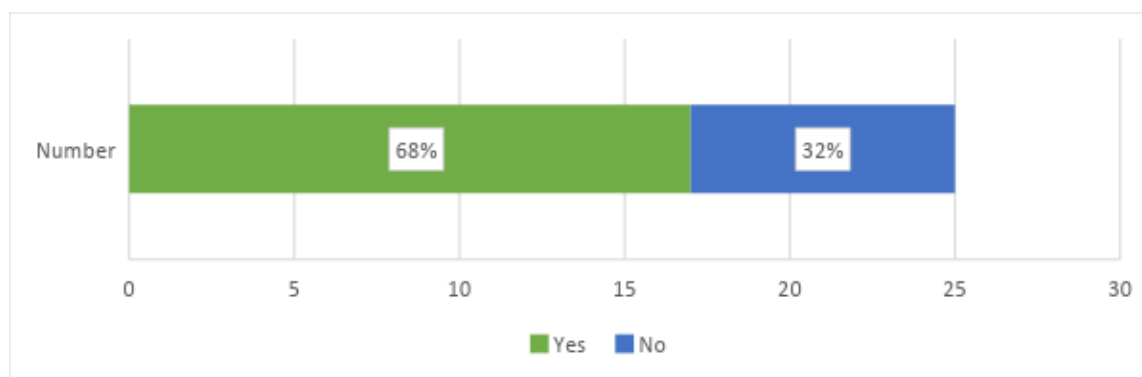


Figure 117. Response to whether animals are treated humanely

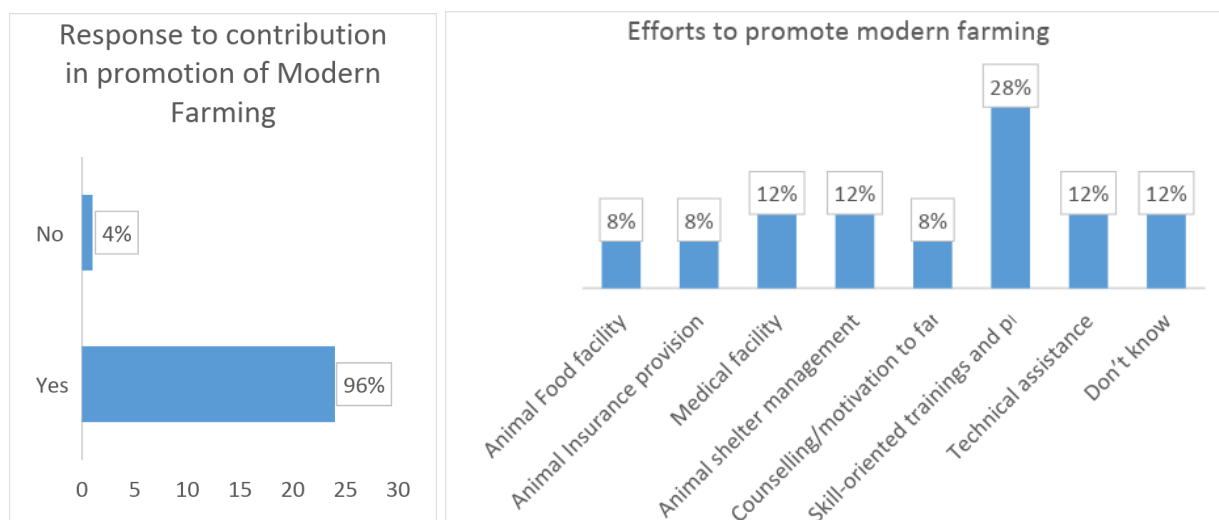
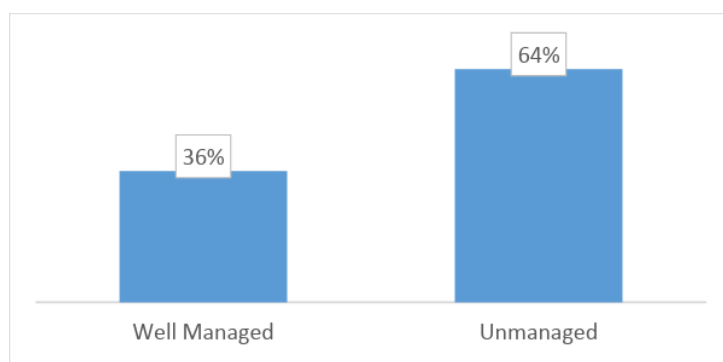


Figure 118. Response to contribution in promotion of Modern Farming and efforts to promote modern farming

When asked if the government authorities have been promoting modern farming in their respective districts, 96% of them said yes. Among the efforts made by them to promote such modern farming, 28% said they were doing so by conducting Skill Oriented Trainings and Programs. Medical facilities, technical assistance, animal shelter management all come in 12% each. Animal food facilities, animal insurance and counselling to farmers on different topics come at 8% each. 12% responded with a 'don't know'.



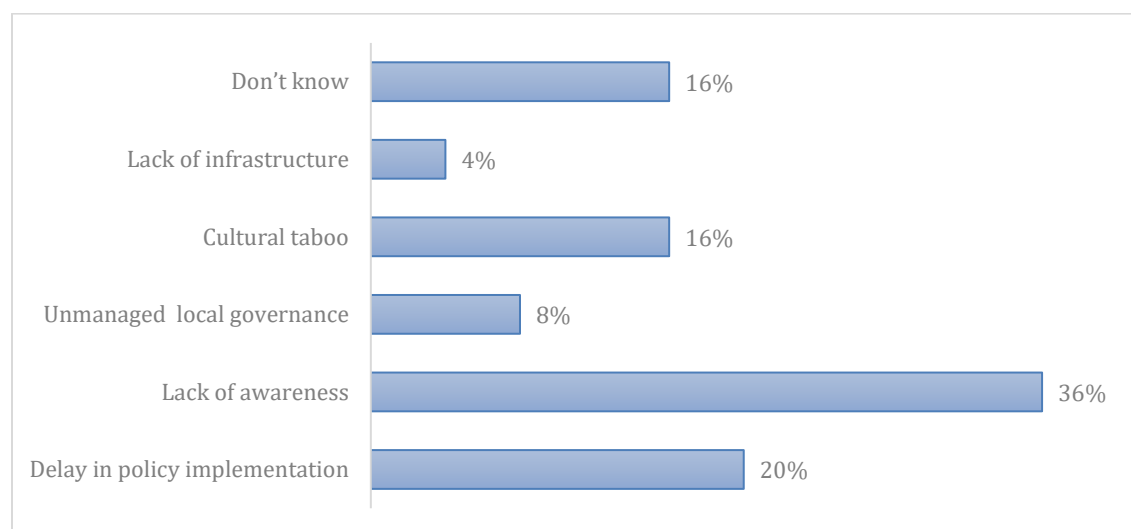
It wasn't a surprise that 64% of the government authorities think the livestock market is not well managed and has a lot of gaps to be fulfilled. This also shows that they realize the fact that a lot has to be done to improve the livestock sector here in Nepal.

Figure 119. Perspective of Govt Authorities on Livestock Market

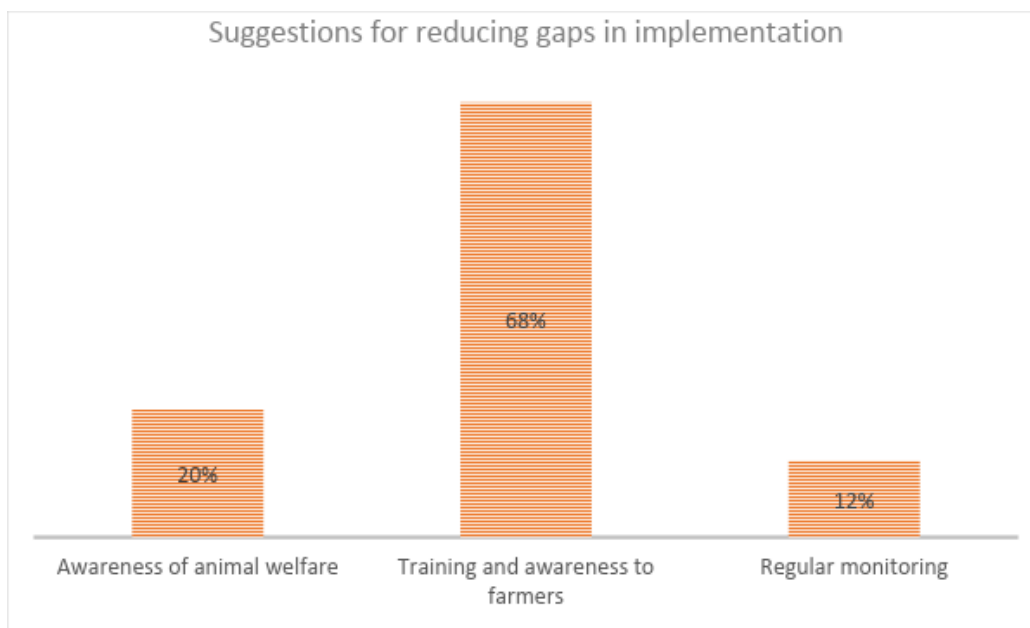
A total of five cases related to livestock had been registered in the surveyed areas. The following table shows the type of cases:

S.N	District	No. of cases	Type	Actions taken
1	Kaski	2	Unhygienic meat shops	License cancelled
2	Jhapa	1	Stray Animals	N/A
3	Chitwan	2	N/A	N/A

Since the implementation of policies and acts have been a major weakness in almost all aspects of the country, the respondents were asked about that they think are the major policies and implementation gaps, which included: delay in policy implementation (responded by 20 percent), lack of awareness (by 36 percent), unmanaged local governance (by 8 percent), cultural taboo (by 16 percent), lack of infrastructure (by 4 percent) and the remaining had no idea about the possible gaps. While policy making and implementation are two different tasks, the identification of gaps between the actual implementation actually is a matter of concern to the policy makers who are in the local and the provincial level.



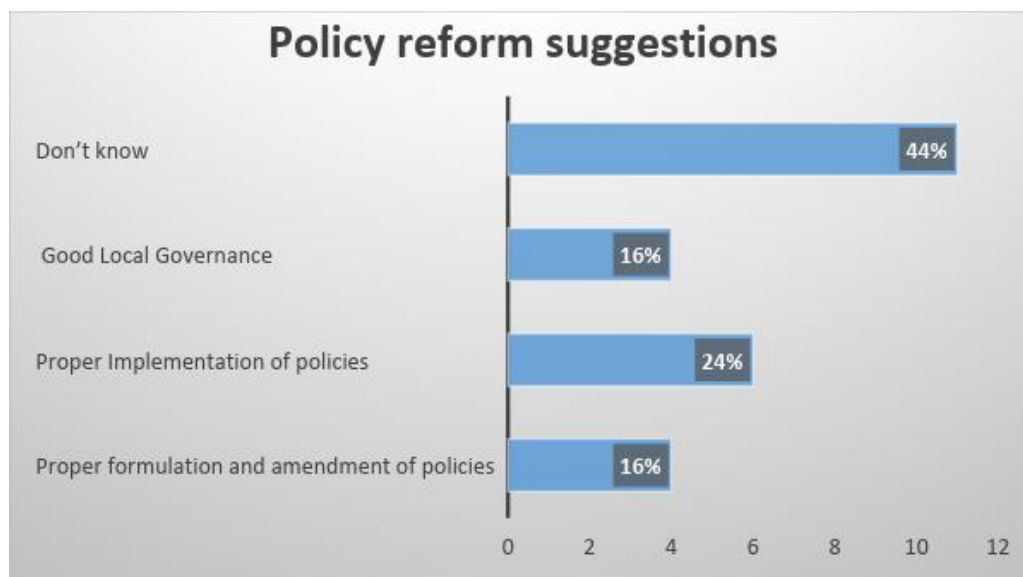
*Figure 120. Reasons for gaps in policy implementation*



*Figure 121. Suggestions for reducing gaps in implementation*

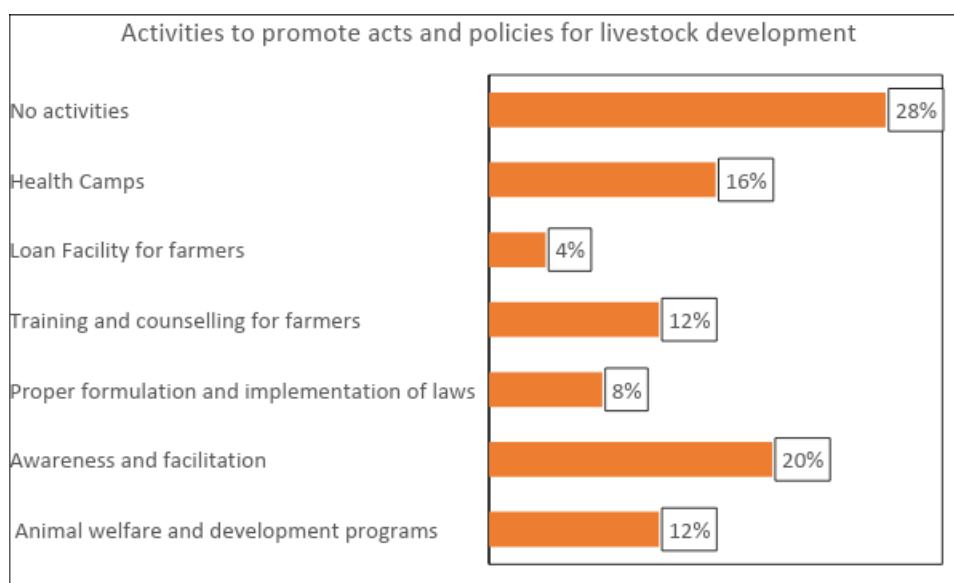
When asked if they have suggestions to reduce such implementation gaps, 68% responded that it is essential to train and aware farmers on all the acts and policies there are. 20% said it is necessary to aware people about issues of animal welfare and 12% stressed on regular monitoring from concerned authorities if the acts and policies are being implemented at the local level.

For policy reform suggestions, 16 percent suggested proper formulation and amendments of policies, 24 percent with proper implementation of policies, 16 percent with improvement in local governance and 44 percent did not forward their opinions. Identification of major loopholes is only achieved with constant supervision, interaction and a strong and responsive compliance mechanism. Channelizing a strong chain of command, along with practical illustrations to recognize the areas for improvement is limited in this aspect.



*Figure 122. Policy reform suggestions*

The major activities to promote policies and acts related to animal husbandry and development comprises of animal welfare and development programs, awareness and facilitation, proper formulation and implementation of laws, training and counselling for farmers, loan facility for farmers and health camps. There is a dire need to identify and incorporate further aspects of animal husbandry so as to improve productivity on one hand and on the other hand to develop a culture of recognizing and accepting animals as sentient beings behaviorally.



*Figure 123. Activities to promote acts and policies for livestock development*

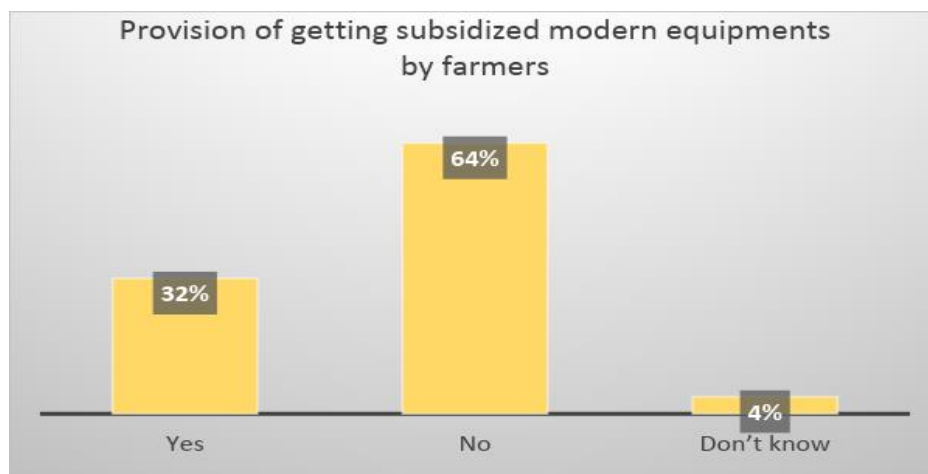


Figure 11 Provision of getting subsidized modern equipment by farmers

As policy makers occupy the central position in coordinating with various stakeholders, some important challenges have been identified. These include: lack of formulation and implementation of laws (identified by 12 percent) lack of effective programs (by 8 percent), lack of coordination between Government and other institutions (24 percent), lack of involvement of NGOs (by 4 percent), one window policy (by 4 percent), unstable Government (by 4 percent) and 44 percent of the respondents do not know about the challenges.

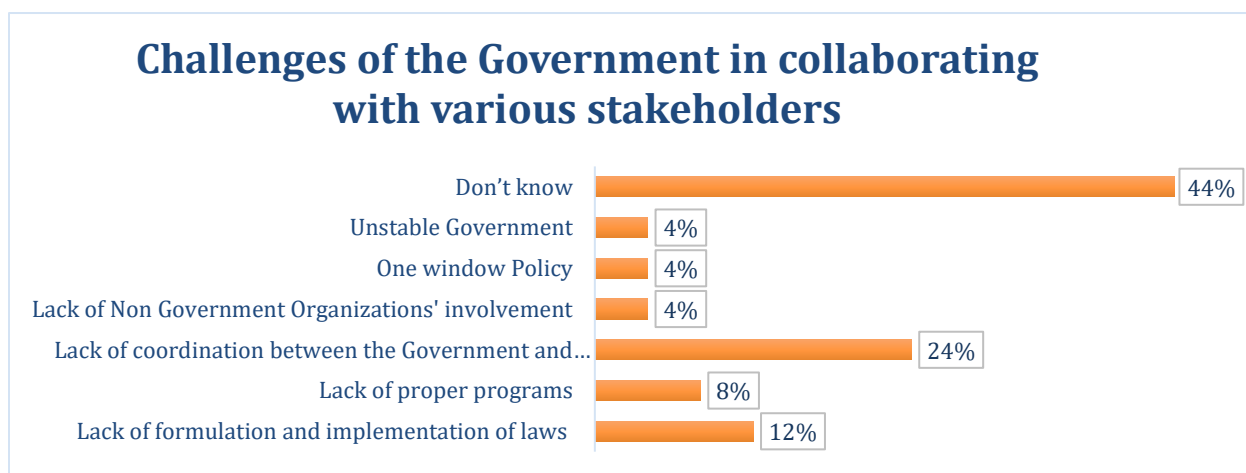
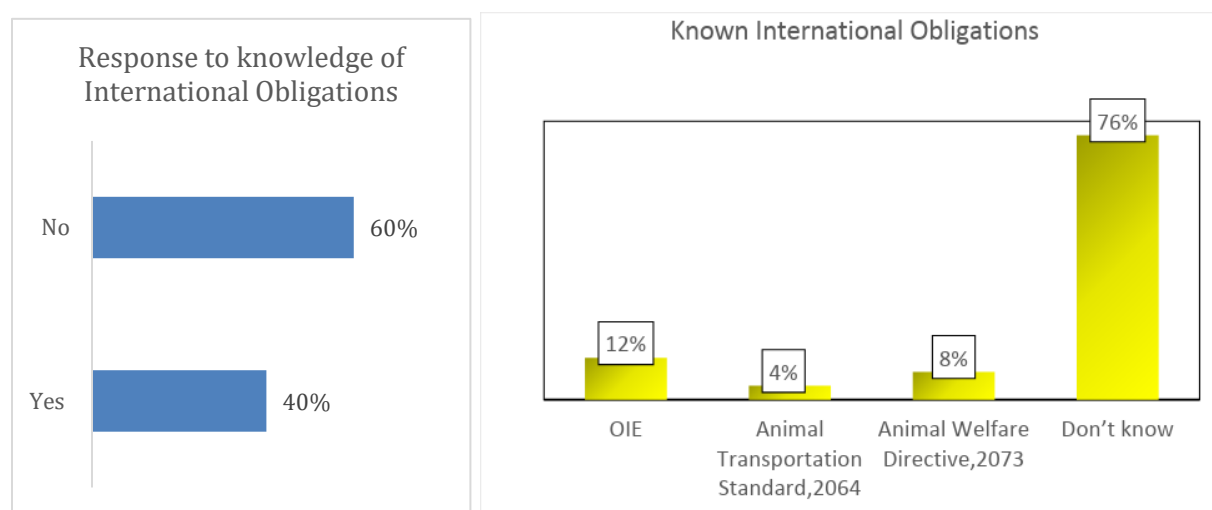


Figure 125. Challenges of the Government in collaborating with various stakeholders

Since there have been a lot of improvement in technologies over the years and many modern equipment have been introduced for better and efficient livestock farming, the respondents were asked if they knew about any type of subsidy provided by the government to farmers who cannot afford such modern equipment. 32% said that there have been such programs every now and then and 64% could not recall of any such programs. Providing free stun guns,

vaccination machines, feeding and milking machines etc. were some of the modern equipment provided by the government for interested farmers.

Regarding the international laws and obligations, there were only 40 percent of the total respondents knew about the international obligations that Nepalese need to fulfill regarding animal welfare and health. Among the important obligations comprised of OIE (responded by 12 percent), Animal Transportation Standard, 2064 (by 4 percent), Animal Welfare Directive, 2073 (by 8 percent) and the rest did not know about those obligations.



*Figure 126. Response to knowledge of International Obligations and known international obligations*

32 percent of the policymakers were willing to become vegetarians/vegetarians because they believed that vegetarianism is a healthy choice whereas 24% stated that they were habituated to consume meat and 40% thought meat is tastier and thus cannot quit eating while 4% had not thought about it.



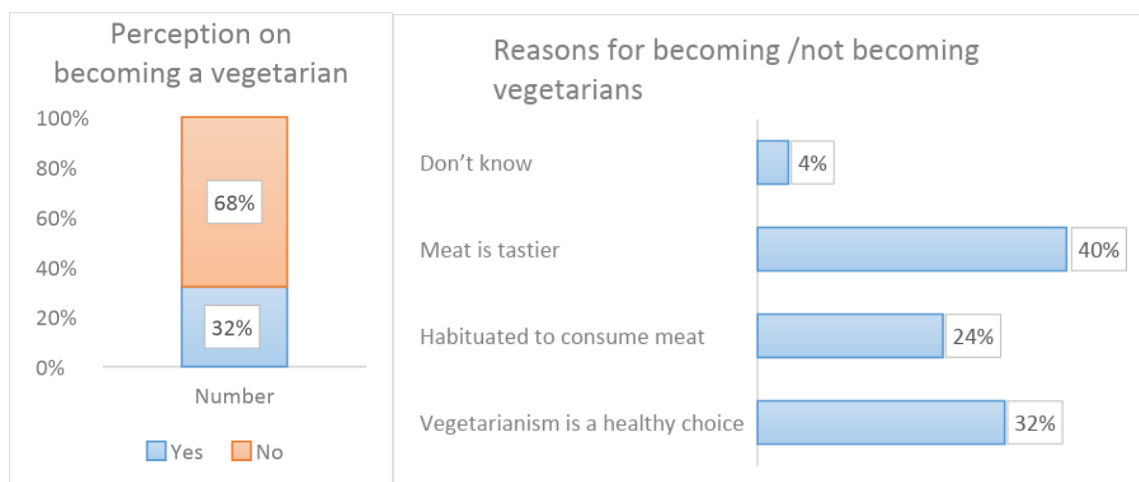


Figure 127. Perception on becoming a vegetarian and reasons for becoming/not becoming vegetarians

The perception of animal welfare included: animal rights and freedom (according to 12 percent of the respondents), animal safety and security (by 12 percent of the respondents), humane treatment (by 68 percent of them) and the rest 8 percent did not know about animal welfare. It has, in a way, shed some light of hope as the government authorities in these positions have a fair bit of knowledge on animal welfare, however, the stress goes to implementation and information dissemination to general public as well.

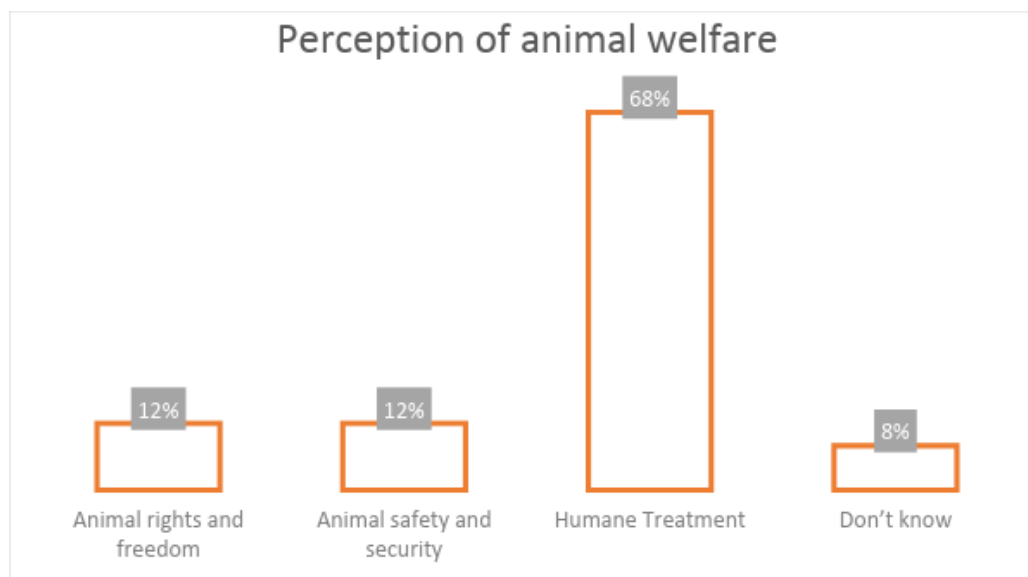
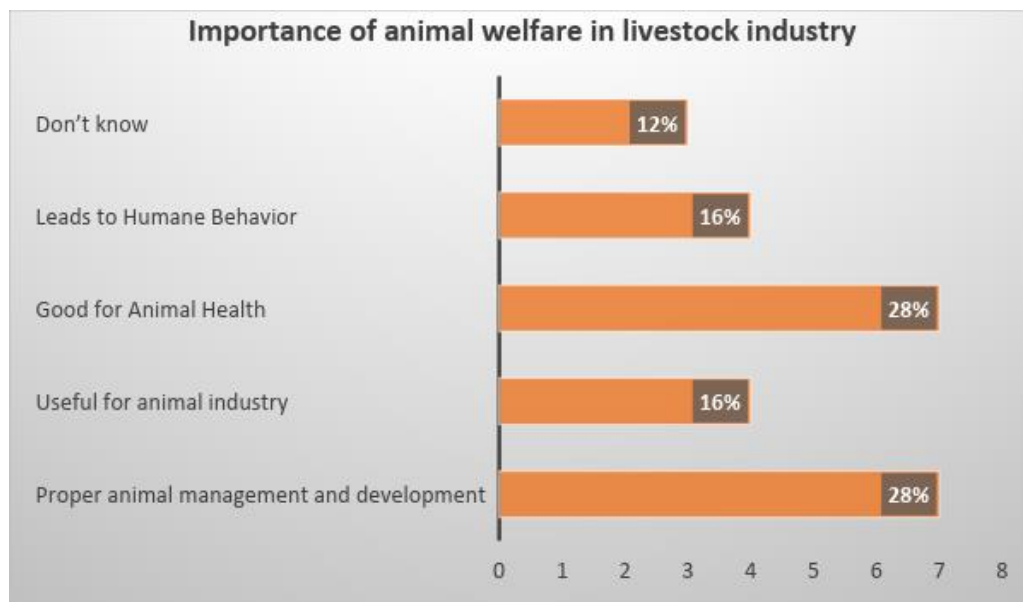


Figure 128. Perception of animal welfare

All of the (**100 percent**) of the respondents believed that animals are sentient beings. In other words, every policy makers who were interviewed responded that animals have the ability to feel pain, happiness and suffering like humans.

The importance of animal welfare in livestock industry has been realized by 96 percent of the policymakers. Among which 28% stated that it helps in proper management and development of animals, usefulness to animal industry was stated by 16%, 28% thought it is good for animal health 16% confirmed it leads to humane behavior towards animals.



*Figure 129.Importance of animal welfare in livestock industry*

## 5. Conclusions and Recommendations

The livestock industry occupies a significant position among the industries of Nepal. The relevance and development of the industry can be enhanced by the acceptance, recognition, inclusion as well as implementation of animal welfare policies and practices.

The situational analysis of the livestock industry provides a comprehensive outlook on the different aspects of the sector. Moreover, the study identifies the opinions, contributions, and awareness of animal welfare and livestock development among the most important stakeholders.

The study uses an integrated system of qualitative and quantitative research methods, with triangulation as its main approach.

The major policies that have been analyzed constitute of the Universal Declaration for Animal Welfare (UDAW), Muluki Ain, Animal Health and Livestock Services Act, Animal Slaughterhouse and Meat Inspection Act, Nepal Veterinary Council Act, Animal Health of Livestock Services Rules, Animal Transportation Standard and Animal Welfare Directive. In the analysis the main gaps in legislation, regulation and enforcement have been analyzed.

The major stakeholders include consumers, animal husbandry farmers, meat producers/butchers and policy makers. Most stakeholders are aware of the fact that animals have the capacity to feel pain, and deserve a better deal. However, cruelty can be seen in the different stages of livestock development, from rearing to slaughter. This can be attributed to a lack of awareness and ignorance but also a lack of training, tools, market access and support mechanism. Consumption behavior is strongly influenced by religion, culture and habit, especially in a country like Nepal in which animals and animal products play a crucial role in cultural and religious events.

Realizing the inevitability of animal consumption, the researchers recommend the adoption and implementing of good practices for the rearing, transportation and killing of livestock.

To do so first the gaps between policy and implementation must be addressed. Effective awareness related campaigns on animal security and welfare must be conducted to influence people in implementing animal welfare practices by themselves and spreading the word to the people around. In order for government authorities to conduct such campaigns, they need to become better informed themselves. Public-private partnership is required, including the support from the industry itself and from civil society and non-governmental organizations.

Chanting slogans will not be effective unless the stakeholders realize their obligations as responsible citizens.

Second, there should be effective mechanism to address compliance and a functional grievance handling mechanism at different levels. Compliance with the existing laws, policies and standards as well as adding and upgrading them is a must to initiate and strengthen good practices.

Third, stakeholders such as consumers, farmers, meat producers and policy makers should be motivated take up their roles and responsibilities in protecting and safeguarding animals. This leads to a civilized society based on a system of morality and ethics and respect to other living beings.

Improving the welfare of animals is a responsibility to be borne at all levels, including individual, societal, national and global level.

## 5.1 Stakeholder specific recommendation

### 5.1.1 For Consumers

- Redirect focus towards hygienic meat rather than fresh meat
- Improve awareness about the benefits of frozen meat
- Be sensitive towards animal welfare and include this concern in consumer choices
- Be responsible and complain to authorities when witnessing or suspecting animal cruelty

### 5.2.2 For Producers

- Take part in government facilities, trainings and services that improve the welfare standards of animals
- Be sensitive towards consumers' health
- Be aware of animal related policies and acts and promote animal welfare
- Promote humane slaughtering, transportation and hygienic meat production as a part of corporate responsibility

### 5.1.3 For Government Authorities

- Strengthen and implement existing policies on animal welfare
- Increase awareness of such policies at different government levels
- Implement awareness and training programs on animal welfare

- Promote insurance policies and provide incentives to ones who follow animal welfare related acts and policies
- Increase monitoring activities and issue required fines and penalties
- Incorporate animal welfare in every livestock related program
- Coordinate with the industry and civil society to improve impact of animal welfare programs

#### 5.1.4 For organizations working on animal welfare

- Lobby with the government to improve acts and policies as well as information dissemination
- Create audience-friendly documents and other outlets on policies with stakeholder specific guidelines
- Create campaigns to increase stakeholders' understanding of the relation between animal welfare and public health and safety

#### 5.1.5 Additional recommendations

- Incorporate animal welfare education in school textbooks and curricula
- Promote good practices in livestock sector at the local and provincial level
- Embrace ethical livestock farming, transportation and slaughtering
- Track and regulate unregistered meat shops/farms and implement policies and acts accordingly
- Increase consumers' awareness of the importance of healthy, safe meat
- Replicate best practices from other countries and adapt them to the context of Nepal

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## Photos



Ostrich farm in Rupandehi



Goat head infested with flies in Biratnagar



Stray cattle in Kanchanpur



Congested Sheep farm in Dang



Meat shop (Pork) in Jhapa



Unhygienic cow shed in Kailali





KII with government official in Dang



Farmer interview in Mustang



Inhumane chicken transportation  
(Kanchanpur)



FGD in Morang



Chicken transportation vehicle in Pokhara



Poultry farm in Chitwan





Ostrich farm in Rupandehi



Unmanaged slaughtering in Saptari



Unhygienic meat shop in Saptari



Chicken being halaled



Stray cattle in Rajbiraj




Awareness banner in government office,  
Kathmandu



Buffalo transportation in Kailali



Pig farm in Surkhet



Thank you.

