Industrial Animal Agriculture in Nepal

By Julie M. Palais, SAVE Nepal



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Introduction

This report describes current agricultural practices in Nepal and focuses on the extent to which industrial animal agriculture and concentrated animal feeding operations (CAFOs) are used in the food production system, to supply meat, eggs, and dairy products to the people of Nepal. Nepal is one of the poorest countries in the world with a population of about 30 million people,¹ and a per capita income of only \$ 1208 in 2021,² placing it in the lower-middle income category, according to the World Bank's new country classification scheme³. Nepal is still a very agrarian country, that depends extensively on both livestock farming, and the raising of crops, both for human consumption and to feed animals.

Background

According to data from the World Bank, agriculture, forestry, and fishing accounted for 65% of the percent of the gross domestic product in 1965, but this number has been going down ever since. In 1985 it was about 50%, in 2001 it was 35%, and in 2021, it was around 21%.⁴ In a recent paper by Khanal et al. (2022)⁵ the authors highlight the importance of the livestock sector for developing countries like Nepal, and remind us that it provides an important source of income and employment for the population. The World Bank estimates that as of 2021 about 64% of the labor force is contributing to the agricultural sector in Nepal, but this number has gone way down from a high in 1991 of 82%⁶. This is due in large part to the remittance economy that has developed

¹ <u>https://data.worldbank.org/indicator/SP.POP.TOTL?locations=NP</u>

² https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=NP

³ <u>https://blogs.worldbank.org/opendata/new-world-bank-country-classifications-income-level-2021-2022</u>

⁴ https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?end=2021&locations=NP&start=1965&view=chart

⁵ <u>https://www.mdpi.com/2077-0472/12/5/679</u>

⁶ <u>https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?end=2021&locations=NP&start=1965&view=chart</u>

in Nepal over the last 20⁺ years⁷, with as many as 15% of the Nepali population working abroad and sending money home to their families in Nepal.⁸

Sources of Information for this Report

Dr. Banshi Sharma⁹ is the Ex-Director General of the Department of Livestock Services for the Government of Nepal. We are working on a project together with another colleague, Professor Prem Chandra Rai.¹⁰ The organization we are forming is called SAVE Nepal, which stands for Save Animals and Value the Environment (SAVE) Nepal. SAVE Nepal is a politically neutral, non-governmental organization, formed in 2023 in Nepal, as a non-profit sharing business under the Companies Act of 2006.¹¹ I have been creating a website¹² for this effort as part of an assignment for Emerging Topics in Animal Law with Professor Mead, as well as to help launch our planned program of work.

I conducted two virtual interviews with Dr. Sharma to supplement my literature research for this paper. Our first conversation provided me with a general idea of the scope of livestock farming in Nepal. In the second interview, which was conducted on Zoom and lasted for about 20 minutes, we discussed industrial animal agriculture in Nepal and the extent to which CAFOs exist, and how much they contribute to each type of livestock farming. The interview was recorded with Dr. Sharma's permission and was uploaded to a new YouTube¹³ channel that I created on our SAVE-Nepal website. Before the first interview, I shared information with Dr. Sharma about how the U.S. EPA defines small, medium, and large CAFOs.¹⁴ Dr. Sharma was already familiar with

¹² https://save-nepal.org/

⁷ <u>https://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS?locations=NP</u>

⁸ https://www.nepalitimes.com/editorial/high-risk-remittance

⁹ <u>https://www.linkedin.com/in/banshi-sharma-85b6062a/?originalSubdomain=np</u>

¹⁰ https://ksl.edu.np/member/assoc-prof-prem-chandra-rai

¹¹ https://nepaltradeportal.gov.np/resources/docs/The%20companies%20act,%202063%20(2006).pdf

¹³ https://www.youtube.com/watch?v=d6k9rG1XV9Q

¹⁴ https://www.epa.gov/sites/default/files/2015-08/documents/sector_table.pdf

the term "CAFO", and during our second interview, he provided me with the equivalent definitions for CAFOs in Nepal, for both livestock and poultry.¹⁵

To simplify the discussion of CAFOs below, instead of trying to follow the same categories defined by the EPA in the US, I used the definitions created by the Nepal government. These definitions are understandably different from those in the US, given the size of the country and the size and types of farms that exist in Nepal. In addition to the information that I obtained from Dr. Sharma, the discussion below uses information that I found by doing a literature search of peer-reviewed journals, "grey literature" from government and NGO websites, and several online English-language Nepali newspapers. Most references are provided as footnotes however some materials were only available in hard copy. Those references are cited in the text and listed in the "additional references" found at the end of this report.

Agricultural products in Nepal include rice, vegetables, sugar cane, potatoes, maize, wheat, buffalo milk, milk, fruit, and mangoes/guavas.¹⁶ Domestic livestock, including 17 different species of farmed animals, account for most of the milk and meat production in Nepal. The animals raised include buffalo, cattle, goats, sheep, pigs, and poultry, among others.¹⁷ The Ministry of Agriculture and Livestock Development (MOALD) of the Government of Nepal (GoN) produces a statistical report every year that provides data on crop production, livestock, fisheries, and other miscellaneous data by district, region, and type of commodity. The most current edition of the report can be found on the MOALD website.¹⁸ The data is used by government officials,

¹⁵ Supra, note 13, 0-8:43 sec. (livestock CAFO) and 8:43- (poultry CAFO)

¹⁶ https://www.cia.gov/the-world-factbook/countries/nepal/#economy

¹⁷ https://www.mdpi.com/2077-0472/12/5/679

¹⁸ https://moald.gov.np/wp-content/uploads/2022/07/STATISTICAL-INFORMATION-ON-NEPALESE-AGRICULTURE-2077-78.pdf

policymakers, NGOs, INGOs, businesses, and academics to help in assessing Nepal's commercial agricultural productivity and food security.

In addition to giving the amount and types of crops produced each year, the report also provides information about quantities of fruits/vegetables produced, the number and types of livestock raised, and information about fisheries, from different sources throughout the country. These sources include aquacultures, as well as fish "captured" in rivers, lakes, and streams. Interestingly, the report also includes a population census by district, as well as information about the production of seeds and fertilizer, and economic data including information about bank loans and gross domestic product by sector/industry.

Farmed Animal Agriculture in Nepal

Being a predominantly Hindu country, it is against the law to kill cows for food consumption in Nepal.^{19, 20} Therefore, cows are only raised in the dairy sector for milk, whereas buffalo are used extensively for both meat and milk. According to Dr. Sharma, there are about 5 million buffalo in Nepal, with the majority being used for milk production. Buffaloes and cows are also used as working animals for tilling land (**Figure 1: Appendix A**), and the unproductive females and male buffaloes are raised for meat consumption. Many families living in rural villages outside of the cities often raise enough livestock (a cow or buffalo, goats, and a few chickens) to support the needs of their family.²¹ Individual farmers may sometimes have large herds of cattle (cows, buffalo, and yaks) if the farmer owns sufficient land to graze their animals. This type of farming occurs both in mountainous areas (**Figure 2**) as well as in the southern, flatter part of the country, called the Terai, where pasture is plentiful. Most of the milk, meat, and eggs to supply the

¹⁹ <u>https://www.jstor.org/stable/27032440</u>

²⁰ https://thewire.in/politics/lessons-for-india-from-nepal-history-of-cow-slaughter

²¹ https://danishknowhow.com/our-projects/nepal-dairy-support-scheme/

cities, where people are not self-sufficient, come from small cooperatives and industrially/commercially raised animals.²² This "formal sector" as it is known, has been increasing, in recent years, with more farmers joining small and medium-sized enterprises (SME) or cooperatives,^{23, 24} leading to greater commercialization, especially in the dairy sector.²⁵

Many people also keep chickens, for both their use and to sell to neighbors. **Figure 3** is an example of how these chickens are often kept in small cages and sold along city streets in Kathmandu. Birds are also transported live to remote villages (**Figure 4**), from commercial farms, so that people can purchase chickens to establish their flocks and so that people can buy the chickens and slaughter them right before they are cooked to be eaten. Since most people do not have refrigeration in their homes, this is how it must be done. Commercial poultry production is also becoming a "big business", not only because of the large number of birds that are raised for their meat but also for the eggs they lay and for the manure they produce, which is turned into valuable fertilizer.^{26,27} The growth in commercially raised poultry is driven in large part by the ability of families to afford to buy more meat and eggs, with income derived from remittances sent home by family members from foreign countries. This growth in industrial animal agriculture in Nepal and a rise in the existence of CAFOs are discussed in more detail below.^{28, 29}

Industrial Animal Agriculture and CAFOs in Nepal

Livestock (Cattle) CAFOs in Nepal

 ²² <u>https://impakter.com/the-women-of-bihani-dairy-in-nepal-give-back-to-community-adapt-to-pandemic-changes/</u>
 ²³ <u>https://www.casaprogramme.com/wp-content/uploads/CASA-Nepal-DairySector-analysis-report.pdf</u>

 ²⁴ https://www.casaprogramme.com/wp-content/uploads/CASA-ivepai-DairySector-analysis-report.pc
 ²⁴ https://kat<u>hmandupost.com/money/2015/04/24/chitwan-overtakes-kavre-as-largest-milk-producer</u>

²⁵ https://www.heraldopenaccess.us/openaccess/milk-production-and-value-chain-in-rural-area-of-nepal-a-casefrom-gandaki-river-basin

²⁶ https://www.agrifarming.in/poultry-farming-in-nepal-how-to-start-a-step-by-step-guide-for-beginners

²⁷ https://www.researchgate.net/publication/348019396_Overview_of_Nepalese_Poultry_Industry

²⁸ <u>https://www.epa.gov/npdes/animal-feeding-operations-afos</u>

²⁹ https://www.epa.gov/sites/default/files/2015-08/documents/sector_table.pdf

Karki et al. (2020) (p. 288) cite a government report from the Department of Livestock Services (DLS)(2017) explaining that commercial dairy farms in Nepal are categorized into three levels according to the number of animals in the holding. These include "small farms" with between 5-10 dairy animals (cow or buffalo), "medium farms" with between 11-30 animals, and large farms with more than 30 animals. After discussing this with Dr. Sharma I decided that these categories of commercial dairy farms are equivalent to what we consider to be CAFOs in the U.S. In addition to the size of the different operations, Dr. Sharma also explained how the wastehandling systems work for both dairy and poultry operations. This is discussed toward the end of this section of the report.

About 80% of the commercial cattle farms in Nepal are of the "small" variety. Smallholdings have anywhere from 1-5 adult cows and not more than 5 additional non-lactating cows or newborn calves for a total of up to 10 animals maximum. Milk production in Nepal comes mostly from small farms of this kind. Medium-size farms usually have between 10-40 animals (cow or buffalo) and have about 15% of the market share of milk production. There are about 2000 farms of this size in Nepal. The large-size farms, with between 40 to about 200 animals, constitute only about 5% of dairy-producing farms in Nepal. Dr. Sharma estimated that there may be as many as 100 farms of this size. **Figures 5 and 6** illustrate large CAFOs in Nepal. **Figure 5** is a farm in Biratnagar with about 100 cows and **Figure 6** shows Kamdhenu Cow Farm³⁰ in Chyangli, Gorkha which is owned by Mr. Rajendra Pant. It is considered one of the largest cow farms in Nepal.

In 2021 MOALD conducted a survey, with technical support from the Food and Agricultural Organization of the United Nations (FAO) and Nepal's National Statistics Office (also called the Central Bureau of Statistics), of the medium and large commercial livestock farms

³⁰ <u>https://www.youtube.com/watch?v=URhO2QJYY_g</u>; <u>https://leftreviewonline.com/dialogue/interview/rajendra-raj-panta.html/attachment/rajendraraj-panta-gorakha-chyangli-cowfarm</u>

in Nepal. The same type of survey is produced every year but does not include the small farms, which, as noted above, constitute the vast majority (80%) of commercial livestock farms in Nepal. An article summarizing the report was published in the newspaper "The Rising Nepal"³¹ and discussed the numbers of each type of livestock farmed throughout the country in medium and large size commercial farms. According to the report, there were 6,486 medium-to-large commercial livestock farms in Nepal in 2021. Of those, 19% (1,233) were cow farms, 14% (914) were buffalo farms, and <0.5% (43) raised only male buffalo. Mixed farms, with more than one type of animal (breed or sex), also exist in Nepal. About 7% of the farms raised both cows and bulls. Of the total number (44,873) of cows/bulls that were raised on commercial farms, about 63% were raised for milk, whereas 37% were non-milking cows, according to the survey.

The survey also provided information on the total number of buffaloes (both male and female) (34,653) being raised commercially in Nepal. Of those, almost three-quarters (~ 71%) are considered "improved breeds", because the local buffaloes are cross-bred with Murrah bulls to improve their productivity.³² Of those, the number of milking buffaloes was 10,841 (61%) and the rest 6,931 (39%) were non-milking animals.

Poultry CAFOs in Nepal

Commercial poultry farming began in Nepal around 1974 but has only recently become an "emerging industry", with many industrial-scale farms, each with large numbers of birds throughout most of the country.^{33, 34} I decided to track all poultry in a single category, instead of trying to separate laying hens from broilers. Dr. Sharma also noted that in the commercial sector

³¹ <u>https://risingnepaldaily.com/news/18782</u>

³² https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9817500/

³³ https://www.veterinariadigital.com/en/articulos/laying-hen-production-in-nepal/

³⁴ Supra note 24.

the number of laying hens, compared to broilers is very limited. A photo of a typical poultry farm in Nepal is shown in **Figure 7**.

There are three categories of poultry CAFOs in Nepal, based on my interview with Dr. Sharma.³⁵ About 70% of poultry in Nepal are raised in small CAFOs, with 5000 birds or fewer. Another 15% of poultry is raised on medium-sized CAFOs, with between 5000-20,000 birds, and the remaining 15% of poultry is raised on large-size farms with greater than 20,000 birds. Currently, some farms exist with up to 200,000 birds, and Dr. Sharma said that there are plans to construct a poultry CAFO with as many as 1 million birds. It is currently on hold due to budgetary and other reasons.

Waste-handling Systems at CAFOs in Nepal

A final and important aspect of what makes a commercial farm a CAFO is the type of waste-handling system that is used at the farm. Based on my interview with Dr. Sharma, and my literature research it appears that the waste produced by both livestock and poultry in Nepal is considered a valuable commodity and is used to produce both energy and fertilizer.³⁶ Manure waste produced from livestock farming is turned into biogas at some of the larger cattle farms. Although the technology has been used at a domestic scale for about 30 years, for families to generate energy from waste for cooking,³⁷ it is only recently that the government, the development sector, and industry have shown an interest in scaling up the technology to a commercial/industrial scale. Chemical fertilizer for farming is in very short supply in Nepal and must be imported from India³⁸ to provide a large enough supply to farmers who need it for their crops during the growing season.³⁹

³⁵ Supra, note 13, 8:43 sec- 12:20 sec.

³⁶ <u>https://www.nepalitimes.com/here-now/more-bullshit</u>

³⁷ https://www.nepalitimes.com/latest/waste-to-value-with-biogas-in-nepal

³⁸ https://kathmandupost.com/columns/2021/08/11/making-fertilisers-in-nepal?faodatalab=2021-08-12-1

³⁹ https://kathmandupost.com/money/2022/02/22/severe-fertiliser-crisis-looms-as-government-continues-to-fumble

The use of manure from small cattle farms and from most poultry farms is used to produce fertilizer⁴⁰ for crops. This is a win-win for everyone.⁴¹

In my interview with Dr. Sharma, we discussed the waste handling systems for both livestock CAFOs and poultry CAFOs and how they are processed.⁴² As mentioned above, livestock waste from medium and large Nepali-style CAFOs is in most cases converted into energy at biogas plants. Many cattle farms have been able to take advantage of a government subsidy that provided 50-60% of the cost to construct such a plant. One such plant exists near Pokhara, adjacent to a buffalo farm with close to 200 animals. Most of the small cattle farms use the manure produced by their animals on the fields, or they sell it to their neighbors. In the Terai region of Nepal where it is more rural and there is not as great a need for biogas, the waste from the cow/buffalo CAFOs is turned into a slurry and used on the crop fields. Dr. Sharma reiterated several times that waste from CAFOs in Nepal is not a problem and that people are happy to get the waste to help fertilize their crops. He said that manure is like "cash" in Nepal.

The waste produced in large-size poultry CAFOs in Nepal is collected and processed in an incinerator that is sometimes on the grounds of the poultry farm. Chicken manure is in high demand by potato and other vegetable farmers. With chemical fertilizer being very scarce in Nepal, especially during the growing season, poultry manure is very helpful to farmers. The waste-to-fertilizer waste-handling system is a very good business in Nepal and produces good income for the poultry farms that collect it. With the medium and small farms with laying hens, the manure is also collected and sold to farmers.

⁴⁰ https://www.nepjol.info/index.php/JIAAS/article/view/20713/17021

⁴¹ *Supra*, note 36.

⁴² Supra note 13, 13:57 sec-16:36 (poultry waste handling); 16:36-19:00 livestock waste handling).

If there is any disease found among the chickens, which is not uncommon,⁴³ they will destroy the manure and not sell it. After about 52 weeks (about two years) the laying hens are sold for meat and replaced with new birds. The entire CAFO is cleaned out and the manure is put into bags and sold to farmers and the process starts all over again. The small-medium broiler farms are on an 8-week cycle and once the birds are ready to be sold the CAFO is cleaned out and the manure is sold to local neighbors or bagged and sold to people living in cities. Large broiler farms often must collect the waste and transport it off-site to where the incinerator plant is that is used to turn the waste into fertilizer. Poultry manure is a cash crop in Nepal.

Throughout this report, I have used many references from the news media in Nepal. Given that I am limited to reading articles that have been translated into English, I do not know how representative the articles are that I have found. From what I have observed, I believe that the reporting by the media and other sources on the industrial/commercial agriculture sector is mostly positive. Not only does the industry help to feed a population that is food insecure, where many people live in poverty, but it is also an industry where many people are employed. News stories explain about how meat consumption has been increasing, as the country inches out of poverty. For example, one news report said that poultry consumption amounts to about 46% of the total meat consumed by Nepalese people, with buffalo meat amounting to another 33%, followed by goat (17%) and pork (4%).⁴⁴

The topics covered in the newspaper articles about the benefits of the production of both energy and fertilizer from livestock and poultry manure, as well as the articles that discussed how Nepal is becoming self-sufficient in being able to feed its population, seemed the most positive to me. These are issues of importance, particularly in a developing country like Nepal where

⁴³ *Supra*, note 33.

⁴⁴ https://www.nepalitimes.com/news/meat-money-and-the-middle-class

sustainable development goals and food insecurity are topics of daily conversation. In 2021 the big news was that Nepal had finally become "self-sufficient" in its ability to produce enough eggs and meat domestically to supply the demand for these products.⁴⁵ While Nepal doesn't yet produce enough milk to satisfy its domestic consumption, the dairy industry in Nepal is progressing rapidly toward its goal of being able to produce enough milk to become self-sufficient and not have to import any milk from its neighbor India.⁴⁶

In recent years the problems experienced by livestock farmers have made the news and have been reported on websites. These reports have helped to make people more sympathetic to the plight of the farmers.⁴⁷ Most articles portray livestock and poultry farmers as victims of poor government policies or other human/animal health issues. Most articles encourage people to be supportive of farmers and to support the industry. In 2019 when COVID forced "lockdowns" throughout much of the country, farmers lost a lot of their business.⁴⁸ Also in 2019 when bird flu was detected in Nepal, farmers suffered extensive losses. In the case of the bird flu epidemic, the government was blamed in one article for its policies and not doing enough to help farmers.⁴⁹

News articles have also covered the issue of the overuse of antibiotics in the livestock industry and the problem of anti-microbial resistance (AMR) and its impact on human health.^{50, 51} Given what I know about the overall lack of concern for animal welfare in Nepal, I was not surprised to have only found a handful of articles that discussed the welfare of farmed animals or

⁴⁵ *Supra*, note 30.

⁴⁶ https://kathmandupost.com/money/2021/03/25/nepal-becomes-self-sufficient-in-egg-and-meat-production

⁴⁷ <u>https://www.dairyglobal.net/industry-and-markets/market-trends/cattle-farming-in-nepal-why-farmers-cry/</u>

⁴⁸ <u>https://english.khabarhub.com/2020/06/87152/</u>

⁴⁹ https://thehimalayantimes.com/nepal/chicken-price-demand-drop-drastically

⁵⁰ https://www.nepalitimes.com/banner/are-you-sick-of-chicken

⁵¹ https://kathmandupost.com/health/2022/11/30/antibiotic-misuse-triggering-health-crisis

issues relating to the environment.⁵² More recently, with the abandonment of cows reaching all corners of this small country, the plight of abandoned cows has also been making it into the news.⁵³

Based on my research, the state of industrial animal agriculture in Nepal is better than I was expecting. I think this is mainly due to the size of the country and its more rural nature, in comparison to the USA. The only animals raised in what we might call CAFOs seem to be cattle and chickens. Given that the consumption of pork is very low in the country there isn't a need for industrial-scale hog farms, and they tend to be raised by individual families that want to eat pork. Otherwise, few people eat pork, so it is probably not economical to raise hogs on a large scale. On the positive side, I was pleased to see that the livestock farms are not nearly as large as I was envisioning. The largest cattle farms are equivalent to our small to medium-sized CAFOs in the USA, although the size of farms in Nepal, for both cattle and poultry seems to be growing.

As part of my research I corresponded with Dr. Gokarna Gautam⁵⁴ who is an Associate Professor at the Agriculture and Forestry University in Rampur, Chitwan, Nepal, and who does veterinary health consulting at Laliguras Farm, (**Figures 8 and 9**), one of the largest dairy farms in Nepal He said that there are currently about 500 cows at Laliguras, which is down from a recent high of 650 (Gautam, personal communication, March 30, 2023). One of the reasons that there are fewer large cattle CAFOs is probably because cows are only used for dairy production in Nepal, and they are not consumed for meat. One of the negative aspects of cattle/dairy farming is that when male cows are born, they are often unwanted, and are sometimes abandoned. Unless they can be used for farm work, or they can be sold. Male cows that are castrated (oxen) and male buffalo can be used to till fields (see **Figure 1**) or to pull carts (**Figure. 10**). But if a farm has a

⁵² https://thehimalayantimes.com/opinion/animal-welfare-need-work-nepal

⁵³ https://www.nepalitimes.com/banner/waiting-till-the-cows-come-home

⁵⁴ <u>https://afu.edu.np/vet/veterinary-theriogenology</u>

male cow that they don't need and cannot sell, they are often abandoned in the forests or along the roads, since farmers usually don't want to feed an unproductive animal.

The technology exists to artificially inseminate female cows with sexed semen to produce mostly female cows and few if any male cows, but such techniques are not normally used by small farmers. At medium and large commercial cow farms, it is something that could be done to prevent the birth of male cows. I asked Dr. Gautam whether commercial cattle farms in Nepal use genetic manipulation to try and breed only female cows. He said that the Nepal government occasionally imports such "sexed semen" from the USA which can lead to 90% of the calves being female. He also said that the government has provided such semen to some of the commercial farms, including Laliguras farm in the past, but it didn't sound like this was happening on a regular basis (Gautam, personal communication, March 30, 2023).

Since the poultry sector in Nepal is mostly broilers it doesn't really matter if the bird is male or female. Laying hens, on the other hand, hatch male chicks that can be sold to small farms that want a rooster for their flock. I was unable to find out if male chicks are killed in the same way as they are in the rest of the world, shortly after birds are born. From what I can gather from the research I have done, the poultry CAFOs are currently expanding in numbers and seem to be growing in size. Given the plans to establish a poultry CAFO with up to 1 million birds, I am a little concerned about what this will mean for the welfare of the animals and the amount of waste that is produced. Fortunately, Dr. Sharma is an advisor to the business that is developing this idea for a "Mega-CAFO" and therefore I hope that he will do what he can to assure that they follow "best practices" to prevent pollution, protect the environment, and assure good animal welfare.

On the positive side, the CAFOs in Nepal (both poultry and livestock) seem to be doing a good job of waste handling and are making very good use of the waste produced by the animals.

While this doesn't account for the gaseous wastes produced by livestock and its contribution to global warming, it does mean that the pollution from CAFO waste in Nepal probably isn't as great as it is in the US. Hopefully, the use of cow manure and other excess waste from the cattle CAFOs to produce biogas, and to make useful fertilizer for farmers from poultry CAFO waste will continue to grow in Nepal in the future.

I have heard that many districts throughout the country are now seeing the value of their abandoned cattle and they are rounding them up and sheltering them in many cities. When I was in Janakpur last December (2022) I had the opportunity to meet with the mayor of the city and he was very proud of the shelter that they were building to house abandoned cattle. They planned to collect the waste and use it to produce biogas. If more and more cities can do this, it will alleviate the suffering of hundreds if not thousands of abandoned cattle throughout the country.⁵⁵

Finally, the welfare of animals being raised in the current system of industrial agriculture farms in Nepal is unclear. Very little, if anything, is ever said about this issue by those who work for the government or in private industry. I get the feeling that they think very little about this issue, which is not too dissimilar from the situation in the US. I am aware of two reports^{56, 57} that were written in the last 10 years, both of which were produced by one of the leading NGOs in Kathmandu, call Animal Nepal.⁵⁸ I know that these reports have been shared with government officials, and yet it seems as if little or nothing has been done to address most of the issues raised in the reports since they were published. This is discussed in more detail below.

In 2016, Animal Nepal published a report "National and International Legal Instruments Addressing Animal Welfare in Nepal". The report lists numerous national legal instruments that

⁵⁵ <u>https://www.nepalitimes.com/here-now/nepals-tarai-is-over-run-by-cattle</u>

⁵⁶ https://animalnepal.files.wordpress.com/2016/08/toc-added_law-review-final_coverimage-added-2.pdf

⁵⁷ https://www.animalnepal.org.np/wp-content/uploads/2019/06/National-Livestock-Welfare-Survey-Report-2-1.pdf

⁵⁸ <u>https://www.animalnepal.org.np/</u>

"explicitly address" or "incidentally" address animal welfare in Nepal. The report also discussed international "soft laws" addressing aspects of animal welfare in Nepal. The report concluded that most of the national legislation dealing with animal welfare in Nepal deals with "cattle or animals used for meat production...animal nourishment, health, comfort, and safety."⁵⁹ The report also noted that these laws have provisions that prohibit "...cruelty towards these animals" including "provisions encouraging humane killing, humane transportation and prohibition of abandonment (of cattle)." There are also laws that "provide for and protect animal welfare" such as the Animal Health and Livestock Services Act, 1999 (2055 BS)(Section 27) that gives the State the right to "...protect animals against negligent and cruel treatment from their owners or any other individual.⁶⁰ Others have called for improvements and changes to the animal laws and regulations in Nepal to be more protective of animals. So far most of these calls have gone unheeded.^{61, 62, 63}

The following is a list of the primary laws, directives, and regulations that apply to farmed animals in Nepal with links to the actual act or regulation online. Most of these are also listed on the SAVE-Nepal website that I have been developing.⁶⁴ The list includes 1) Nepal's Constitution of 2015;⁶⁵ 2) The National Penal (Code) Act, 2017;⁶⁶ 3) Animal Welfare Directive 2073 BS, (2016);⁶⁷ 4) Animal Health and Livestock Services Act, 2055 BS, (1999);⁶⁸ 5) Animal Slaughterhouse and Meat Inspection Act 2055 BS (1999) and Regulations 2057 BS (2001);^{69,70} 6)

English.pdf

⁵⁹ *Supra*, note 56, p. 14.

⁶⁰ Supra, note 56, p. 26.

⁶¹ <u>https://www.mdpi.com/2077-0472/5/1/103</u>; see also notes 56 and 57.

⁶²https://www.snehacare.org/6-ban-live-animal-transportation/; http://www.snehacare.com/snehas-care-against-live-animal-transportation/

⁶³ https://animalnepalcampaigns.wordpress.com/2013/04/27/stop-buffalo-transport/

⁶⁴ <u>https://save-nepal.org/animals-in-the-law-1</u>

⁶⁵ https://lawcommission.gov.np/en/wp-content/uploads/2021/01/Constitution-of-Nepal.pdf

⁶⁶ https://www.moljpa.gov.np/en/wp-content/uploads/2018/12/Penal-Code-English-Revised-1.pdf

⁶⁷ https://www.globalanimallaw.org/downloads/database/national/nepal/Animal-Welfare-Directive-2073-

⁶⁸ https://faolex.fao.org/docs/pdf/nep40217.pdf

⁶⁹ <u>https://faolex.fao.org/docs/pdf/nep40218.pdf</u>

⁷⁰ <u>https://leap.unep.org/countries/np/national-legislation/slaughterhouse-and-meat-inspection-regulation-2057-2001</u>

Nepal Veterinary Council Act 2055 BS (1999);⁷¹ 7) National Dairy Development Policy, 2078 BS (2021);⁷² 8) Animal Transportation Standard 2064 BS (2008)⁷³. While there may be several other laws protecting farmed animals in Nepal, these are the primary ones of note.

There isn't space in this report to elaborate on the myriad of ways in which these laws are supposed to be protecting animals in Nepal but based on my experience and discussions with many people, it appears that there are at least two issues preventing the laws from being implemented and enforced to their fullest extent. In addition to a large segment of the public not taking animal welfare very seriously, or caring much about it, there is the problem that the government and those in law enforcement do not seem very familiar with the laws and do not prioritize the enforcement of them. The Animal Health and Livestock Services Rules (2056) (2000)⁷⁴ and related "Animal Transportation Standards 2064" is illustrative of this issue. Two of the most prominent animal welfare organizations in Nepal, Sneha's Care and Animal Nepal have repeatedly called for the government to pass legislation to stop the inhumane transport (see **Figure 11**) of livestock from the farms where they are being raised to the slaughterhouses but so far it seems like their calls have fallen on deaf ears, despite their pleas as well as news media coverage of the issue.^{75, 76, 77}

Apparently, there have been at least two Supreme Court cases in Nepal challenging the government to promulgate rules to properly implement the Animal Health and Livestock Services Act (1999), the Animal Health and Livestock Services Rules (2000), and the Livestock Transportation Standards (2007). According to an analysis by Professor Rai from Kathmandu

⁷¹ <u>https://faolex.fao.org/docs/pdf/nep40219.pdf</u>

⁷² https://moald.gov.np/publication/national-dairy-development-policy-2078/

⁷³ https://thehimalayantimes.com/kathmandu/transport-farm-animals-in-humane-manner-orders-sc

⁷⁴https://www.lawcommission.gov.np/en/wp-content/uploads/2018/09/animal-health-and-livestock-services-rules-2056-1999.pdf

⁷⁵ <u>http://www.snehacare.com/snehas-care-against-live-animal-transportation/</u>

⁷⁶ <u>https://myrepublica.nagariknetwork.com/news/call-to-follow-livestock-transportation-guidelines/</u>

⁷⁷ <u>https://www.youtube.com/watch?v=4EZ9ywiBNuM</u>

School of Law (Appendix B), in 2018 the Supreme Court "issued an order of mandamus⁷⁸ as per the demand of the petitioners" for the government to "take prompt action" to enforce the laws relating to livestock transport. It also called on the government to "promulgate an Animal Welfare Act".⁷⁹ Animal welfare advocates have been calling on the government to prepare an Animal Welfare Act for many years now but so far there is nothing that is publicly available that has its origins in the government. Despite searching online for the "Animal Transportation Standards, 2064" mentioned in numerous reports and newspaper articles, I have yet to find anything on the Nepal Law Commission website.⁸⁰

Most farm animals in Nepal are tethered on very short tethers, usually made of rope, for virtually their entire lives. **Figure 12** shows some photos of different types of farm animals tied with ropes around their necks or through their noses with less than a 1-2 ft piece of rope. I believe this form of tethering creates poor welfare for many animals living in Nepal. I have rarely seen animals tied down with long enough tethers that they are able to move around sufficiently to express their normal behavior. Because nearly everyone tethers their animals that way, it is considered an "accepted practice" in the same way that many of the animal husbandry practices in the U.S. are also creating poor animal welfare.⁸¹ I would like to see the government promulgate standards like those that exist in Australia⁸² explaining how to tether a cow and to give them better welfare.⁸³

⁷⁸ <u>https://www.law.cornell.edu/wex/mandamus</u>

⁷⁹ https://thehimalayantimes.com/kathmandu/transport-farm-animals-in-humane-manner-orders-sc

⁸⁰ <u>https://lawcommission.gov.np/en/</u>

⁸¹ <u>https://www.animallaw.info/article/inadequate-protection-annimals-against-cruel-animal-husbandry-practices-under-united-states</u>

⁸² <u>https://agriculture.vic.gov.au/livestock-and-animals/animal-welfare-victoria/pocta-act-1986/victorian-codes-of-practice-for-animal-welfare/code-of-practice-for-the-tethering-of-animals-revision-2</u>

⁸³ <u>https://i.stack.imgur.com/LAy81.png</u>

Finally, there is a nice presentation online, that a Nepali veterinarian created about the many issues in Nepal that lead to poor animal welfare.⁸⁴ Not only does the presentation do a very good job of highlighting the many problems that exist for different types of animals (e.g. wildlife, farmed animals, companion animals, animals used in research, etc.) but it also gives a comprehensive list of the laws that are already in place that are supposed to be preventing these types of problems from happening. I believe that documents like this presentation and the other reports that I have cited above, provide a good roadmap for how to begin to improve the lives of animals in Nepal; especially those who are giving up their lives to feed the people of Nepal.

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- Karki, U., Karki, L.B., Pradhan, D.R., & Sherchand, L. (2020). Principles, Practices and Future Directions of Sustainable Livestock Production in Nepal. In D.P. Rasali, P.B. Bhandari, U. Karki, M.N. Parajulee, R.N. Acharya & R. Adhikari (Eds.), *Principles and practices of food security: sustainable, sufficient, and safe food for healthy living in Nepal* (pp. 270-294). USA: Association of Nepalese Agricultural Professionals of Americas.

People Contacted/Consulted (in Nepal and USA)

- 1. Dr. Banshi Sharma*- Former Director General, Department of Livestock Services, Nepal
- Dr. Lila Karki*, Assistant Professor, Agricultural Economics, University of Maryland Eastern Shore
- 3. Dr. Bishwas Sharma*, Graduate Research Assistant, South Dakota State University
- 4. Dr. Sujan Ghimire*, Graduate Research Assistant, South Dakota State University
- 5. Gorkarna Gautam**, Consultant, Laligurans Cow Farm (Dairy)

⁸⁴ <u>https://www.slideshare.net/DrSushilNeupane/animal-welfare-issues-in-nepalpptx</u>

Appendix A: Figures





Figure 1. Working male cows (Oxen) near Dhampus, Nepal (Photo by Julie Palais)



Figure 2. Yak Farming in Mountainous Areas (Photo by Banshi Sharma)



Figure 3. Caged Chickens for Sale in Kathmandu, Nepal (Photo by Julie Palais)

Figure 4. Commercially raised chicken transport in Dhampus, Nepal (Photo by Julie Palais)



Figure 5. Large CAFO Cow Farm in Biratnagar (Photo by Skanda Ghimire)



Figure 6. Large CAFO, Kamdhenu Cow Farm-Chyangli, Gorkha Mr. Rajendra Pant (owner)(photo by Banshi Sharma)



Figure 7. Poultry Farm in Nepal (Photo from Wikimedia: Source: Tiger Gang)



Figure 8. Laliguras Farm, (Photo by Gokarna Gautam)



Figure 9. Laliguaras Farm Dairy Operation (Photo by Gokarna Gautam)



Figure 10. Oxen pulling a cart (Photo by Julie Palais)



Figure 11. Buffalo inhumanely transported with their noses and tails tied to frame of truck (Photo via Sneha's Care)



Figure 12. Cows on very short tether on typical farm in Nepal (Photo by Julie Palais)

Appendix B. Legal Analysis of Supreme Court Cases in Nepal

Prepared by Prem Chandra Rai, Kathmandu School of Law Re: Analysis of two Nepali Supreme Court Cases involving Animal Protection Law in Nepal

There are two supreme court cases:
(1)
Padam Bdr Shrestha v. Ministry of Agriculture and Livestock Dep.⁸⁵

Some practicing lawyers challenged the government of Nepal alleging that it has not properly implemented the Animal Health and Livestock Services Act 1999, Animal Health and Livestock Services Rules 2000, and Livestock Transportation Standards 2007, allowing the following cruel and inhumane acts:

While transporting the animals for meat such as buffalos, oxen, pigs, goats, ducks, chickens, they are kept under the roof or baggage storage of a bus and are kept more than 8 hours without food and water. In transporting buffalos, they are tied in a truck with knots in their nose and tails in the number of 30 to 40 in a very congested situation. These animals are transported so cruelly that in order to deter their voice, their mouths are tied with rope. Many animals die due to the unbearable torture inflicted on them during the transportation. In transporting the poultry, they cram them in a truck or hang them so inhumanely on a cycle or motor cycle in their legs tied at the carrier with their heads down. Even if there are quarantine check posts on the transportation route, they do nothing in enforcing the above-mentioned Act, Rules and Standards.

The petitioners sought an order against the government of Nepal to take prompt action to stop such cruel treatment of livestock and poultry and to effectively enforce the relevant laws including the Transportation Standard 2007.

Rendering the judgment, the Supreme Court of Nepal issued an order of mandamus as per the demand of the petitioner including to inspect and monitor such transportation; and to circulate a directive to the highway police post and quarantine offices to take prompt legal action against such cruel and brutal behaviour and act. The apex court further ordered the government of Nepal to take prompt action to promulgate Animal Welfare Act.

Note: So far, I haven't heard any case where this supreme court order is executed by taking legal action against any culprit who engaged in such cruel act, by highway police or any other government officials.

(2)

Yam Kumari Shrestha v. The Movement of Nepal⁸⁶

The complaint in this case is almost similar to the above case (with respect to cruelty) but the major issue raised was there is no strong and effective law to protect, respect and proper utilization of livestock, and there is no designated place to institute a legal proceeding against a culprit who engage in animal cruelty.

⁸⁵ NKP 2076 (2019) V61(8) DN 10330.

⁸⁶ NKP 2076 (2019) V61(3) DN 10224.

The apex court issued an order to enact an animal right and welfare legislation containing following provisions, with reference to the Animal Welfare Directives 2016:

To define an act that mount to 'cruel' and 'inhumane'; to prevent animal cruelty: engage in public awareness; to designate authorities who monitor the animal cruelty; to designate or establish a body where a complaint against animal cruelty could be filed; a provision on punishment and compensation; the duty of the livestock owner; the technologies to be used to mitigate the pain and suffering of the animal while transporting and slaughtering; subject matters such as genetic engineering and genetic modification.

The court further ordered to effectively implement the Animal Welfare Directives 2016, to protect the animal freedom and protection, until a legislation relating to animal welfare is promulgated. Also, in order to build awareness among concerned government officials and public at large about their duty and obligation with respect to the animal freedom, the court ordered to propagate the available laws, directives and judgments.

Note: again, I have no information if any of part of the order is implemented, ... most probably not.

В

Aside from those laws that mentioned in Julie's email, following legislations are also available:

- (1) Local Self-governance Act, 1999. Sections 28 and 96(j);
- (2) Animal health and Livestock services professional council act, 2023 (recently enacted, available only in Nepali language), Section 8.