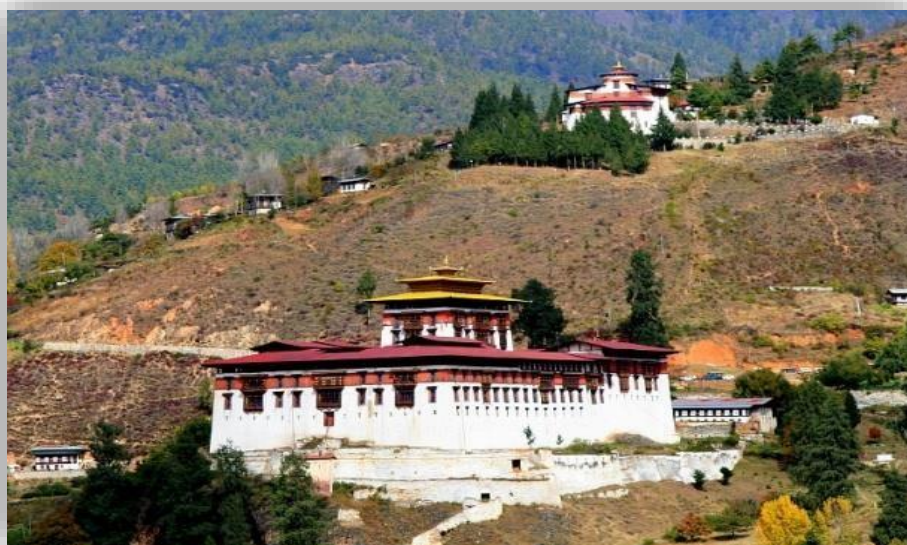




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Annual Progress Report 2019-2020 Dzongkhag Livestock Sector Paro Dzongkhag



Compiled and submitted by:-

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Livestock Production Officer

Acknowledgement

I would like to thank both Dasho Dzongdag and Sr. Dzongrab, Dzongkhag Administration Paro for their moral support to the Livestock sector and has always given priority and support to the sector development activities. I should not forget to extend my gratitude to Mr Loden Jimba, Deputy Chief District Livestock Officer and Mr. Thinley Dorji, Assistant District Livestock Officer for their support in gathering all the data and also for their encouragement in bringing up this annual progress report.

I would like to thank Department of Livestock (DoL), Department of Agriculture and Marketing Cooperatives (DAMC) and National Highland Research Development Center (NHRDC) for their support in dairy farmers group and to our highlander communities.

My sincere thanks and appreciation goes to all the colleagues of Livestock Sector, Paro Dzongkhag for their timeless efforts in delivering efficient services and creating visible impact to the community and for providing reports and data in time. My appreciation to you all.

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Brief Background

Paro Dzongkhag comprises of 10 geogs and 50 chewogs with 396 villages. It has the population of 48135 with a poverty rate of about 4.7%. Nearly 70% of the population lives in the rural areas and their livelihood depends on agricultural farming. Livestock rearing is an integral part of farming and almost all the households own livestock for milk, egg, meat, manure and draught purposes.



Objectives

- i. To keep records for future references and planning
- ii. To acknowledge efforts made by each staff

Table 1: Table showing the existing infrastructure for Livestock Sector

| DVH/Livestock Sector | Total AI Centers Nos | RNR-EC Nos | Milk Processing Unit(MPU)Nos | Milk Collection Centers(MCC) Nos |
|----------------------|----------------------|------------|------------------------------|----------------------------------|
| 1 | 9 | 10 | 3 | 5 |

Table 2: Livestock Priority Farming Areas Identification

| Type | Area |
|------------|--|
| Dairy | All geogs |
| Poultry | All geogs |
| Piggery | Naja, Doteng, Luni, Shaba, Shari and Lamgong |
| Fishery | Shari |
| Apiculture | Naja |
| Yak | Tsento and Doteng |

Paro is considered as one of the developed district in the country and it has beautiful landscape with adequate water sources for growing crops and fodder. And with high population living in the district, there is not much problems in marketing any produce from the farmers field. With the availability of credit facilities from the banks, nowadays many youths are coming forward showing interest in livestock related activities and projects. Among the livestock related projects, many opt for poultry production mainly focusing on producing the eggs because it has short gestation period and they can earn good income within short span of time. Nevertheless,

Dzongkhag Livestock leads in taking the decision and making concrete way forward which farming is suitable for the proponent. The other factor that determines the choice of farmer depends solely on master plan of 12th Five Year Plan.

Table 3: Staff Information for Paro Livestock Sector

| Sl. No | Name | EID | ID No | Designation | Location | Contact No | Email |
|--------|------------------|--------------|-------------|-------------|-----------|------------|--|
| 1 | Loden Jimba | 9608065 | 11901001130 | DCDLO | DAP | 17658725 | ljimba@paro.gov.bt |
| 2 | Thinley Dorji | 2008124 | 10607001067 | ADLO | DAP | 17736324 | tdorji@paro.gov.bt |
| 3 | Sonam Rinchen | 200507111 | 11705000482 | ES | Tsento | 17774312 | Sonamrinchen369@yahoo.com |
| 4 | Tshegay Norbu | 200607143 | 11105003610 | LPO | DAP | 17657711 | phubonly@gmail.com |
| 5 | Rinchen Dhendup | 200507106 | 11511001335 | Sr.ES III | Lamgong | 17691004 | lamgonglivestock@gmail.com |
| 6 | Ugyen Phuentsho | 200507114 | 11606003437 | Sr.ES III | Doteng | 17733425 | ugyenyangtsee@gmail.com |
| 7 | Cheten Gyeltshen | 8604124 | 11505003445 | LPS I | DVH | 17645698 | chetenlps@gmail.com |
| 8 | Norbu | 9708010 | 11506000303 | Sr. ESI | Lungnyi | 17797798 | ndukpa38@gmail.com |
| 9 | Ugyen Rinzin | 9107105 | 12002000593 | LHS III | Dokar | 17639297 | ugyenrinzin2014@gmail.com |
| 10 | Kinley Dorji | 9908041 | 10709003844 | Sr.ES I | Naja | 17953276 | mckinleydorji76@gmail.com |
| 11 | L B Raika | 8604121 | 11303001909 | LHS II | Naja | 17910452 | lalbdraka@gmail.com |
| 12 | Dr Sonam Peldon | 201401033090 | 10606000199 | Sr. VO | DVH | 17634786 | spvet89@hotmail.com |
| 13 | Tenzin Tshomo | 201107212 | 1100100300 | ES I | DVH | 17855466 | tannytshomo@yahoo.com |
| 14 | Nim Dem | 200507128 | 108100909 | Sr. ES II | Hungrel | 17606590 | demnim@gmail.com |
| 15 | B.B Gurung | 2112016 | 11204001674 | LT | DVH | 77642861 | bktgurung@yahoo.com |
| 16 | Tashi Gyeltshen | 9801104 | 11410000698 | Sr ES | Shaba | 77679339 | tgyeltshen@paro.gov.bt |
| 17 | Kuenzang Choden | 200507126 | 10811002474 | Sr ES II | Wangchang | 17658049 | kinscho@yahoo.com |
| 18 | Shabir Tamang | 200507133 | 11503003014 | Sr. ES II | Shaba | 17749039 | iigtentamang80@gmail.com |
| 19 | Tsheten Dorji | 9808093 | 11503003014 | Sr ES I | Tsento | 17886801 | ridupyeshi2012@gmail.com |
| 20 | Ugyen Tshewang | 200407208 | 12005002713 | Sr. LPS II | Shari | 17670636 | Ugyenwang79@gmail.com |
| 21 | Tenzin Wangmo | | | ESP | DVH | 17886801 | |
| 22 | Arjun Gishing | NA | 10906002457 | Driver | DVH | 17454804 | |

Table 4: Information on Groups and Cooperatives

| Name of Group | Geog | Gender | | Total members | Name of Chairman | Contact No. |
|-------------------------------------|-----------|--------|--------|---------------|--------------------|-------------|
| | | Male | Female | | | |
| Namji Dairy Cooperative | Luni | 5 | 11 | 16 | Tshewang Rinzin | 17617621 |
| Kunechab Omgi Detshen | Luni | 3 | 23 | 26 | Kinley Wangmo | 17836952 |
| Lamgong Lha Cooperstive | Lamgong | 13 | 15 | 28 | Gyeltshen Tshering | 17604214 |
| Shari Lhothuen Omgi Tshogpa | Shari | 34 | 29 | 63 | Ugyen | 17664196 |
| Jangchubcholing Dairy group | Naja | 12 | 11 | 23 | Rinchen | 17701904 |
| CAAS-Bhutan Dairy Group | Naja | 1 | 15 | 16 | Chencho Tshering | 77223567 |
| Damchena Phuesum Omgi Deshen | Shari | 8 | 19 | 27 | Tshendra | 17623430 |
| DACOD Dairy group | Doteng | 21 | 28 | 49 | Phuba | 17606558 |
| Shaba Phuensum Omgi Detshen | Shaba | 11 | 27 | 38 | Sonam Tshering | 17604436 |
| Nephu Om Detshen | Shaba | 6 | 6 | 12 | Kencho Wangmo | 77761986 |
| Tsento Nyamley Omgi Detshen | Tsento | 14 | 25 | 39 | Rinzin | 77665458 |
| Paro Drakey Lhanor Nyamley Tshogdey | Tsento | 23 | 20 | 43 | Tobgay | 17679969 |
| Dogar Chithuen Omgi Detsen | Dokar | 16 | 27 | 43 | Pem Tshering | 17705756 |
| Taktsang Zoenta Detshen | Tsento | | | | | |
| Wangchang Women Saving Group | Wangchang | | | | | |

Presently there are 15 groups formed by the livestock sector Paro Dzongkhag. Thirteen of them are focusing on dairy related activities and one each taking up horse activities and another on cross sector activities. Amongst thirteen dairy groups four of them is registered as cooperative and rest them are still at group level, however, during the next financial year all the groups are expected to upgrade as cooperative as mandated.

Achievement and Progress made in 2018-2019

The financial year 2019-2020 was another successful milestone for the Dzongkhag Livestock Sector, Paro Dzongkhag. Besides emphasizing on enhancing the livestock production, other activities that will improve the administration system were also given equal opportunities. The fields of activities that were focused were classified as follows.

- Major renovation of Dzongkhag Veterinary Hospital was carried out to render the effective service delivery to the clients.
- Procurement of furniture and carpeting of offices and meeting hall, changing of all window curtain was executed successfully
- To make the working place a conducive, wangling of *Chukheb* in the meeting hall and installation of screen for LCD projector done instinctively.
- Having a continuous and proper drinking water is must and installation of water syntax that can cater the water for the residences inside DVH was carried out.
- With growing population of youth, increasing the criminal activities is on rise and thus to avoid such mishaps within the compound of DVH, CCTV cameras were installed in the DVH compound.
- Until now, there was no veterinary ambulance for DVH, but with external funding from a couple from Netherlands, sector has procured one bolero for the purpose of veterinary ambulance to cater better service delivery for the public.

The financial report for FY 2019-2020

The Dzongkhag Livestock Sector had total capital budget approved of Nu: 9.07 million and utilized 99.27% of the budget has utilized successfully although COVID-19 had hit hard. The table below shows the budget utilization in FY-2019-2020

Table 5: Budget utility information for Livestock Sector

| Financial Report for Livestock Sector | | |
|---|-----------------|--------------------|
| Capital Activities | Approved Budget | Budget Utilization |
| Purchase of Vehicles | 0.740 | 97.16% |
| Training on Poultry | 0.080 | 100.00% |
| Farmers Training on Animal Breed Improvement Programs | 0.077 | 98.70% |
| Farmers Training on Highlander Program | 0.510 | 100.00% |
| Training n Animal Zoonotic Diseases | 0.300 | 100.00% |
| Construction of Silo Pits | 0.810 | 99.88% |
| Construction of Dairy shed | 1.990 | 99.95% |

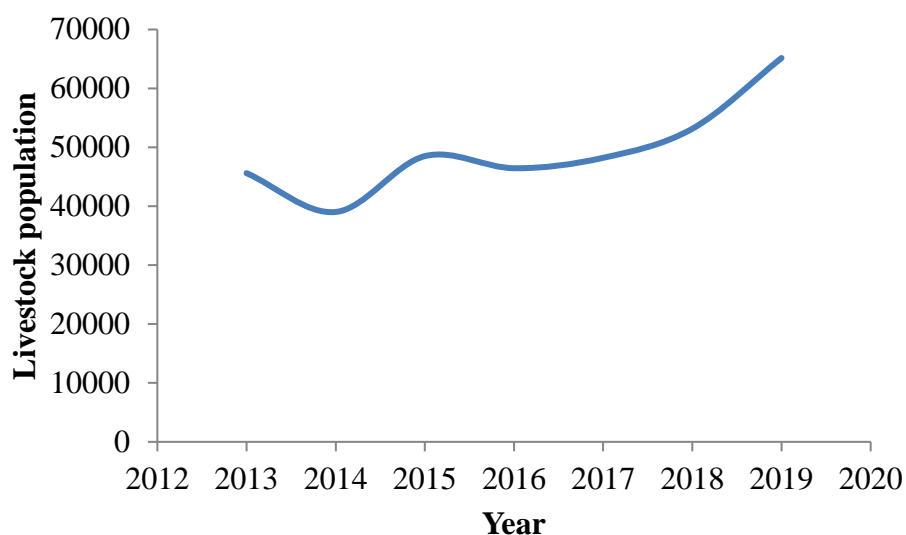
| | | |
|--|--------------|---------------|
| Construction of Pig Shed | 0.457 | 98.25% |
| Major Maintenance of DVH | 1.500 | 98.00% |
| Procuring and Improve of Cow | 2.073 | 100.00% |
| Procurement of Equipments for Dairy Cooperatives | 0.480 | 100.00% |
| Over all Achievement % | 9.017 | 99.27% |

Livestock Population

The livestock population trend over the years has not changed much but little fluctuation is seen. The table below shows the livestock population trend in Paro Dzongkhag between years 2013-2019. The above works were executed through administration mode of operanda but there are also other activities which are directly linked to field stations. To achieve the field related works, external agencies call With these entire value added environment, we could work more with dedication and interest because we have the facilities to move forward.

Table 6: Cattle Population Trend in the 11FYP under Paro Dzongkhag (Livestock Statistic, 2019)

| Livestock Population | | | | | | | |
|----------------------|-----------|-------|-------|-------|-------|-------|-------|
| Breed | Year wise | | | | | | |
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| Cattle | 13052 | 13789 | 12246 | 13111 | 14119 | 13315 | 13443 |
| Mithun | 7 | 5 | 28 | 6 | 5 | 6 | 4 |
| Yak | 2632 | 2690 | 3360 | 3186 | 3332 | 3713 | 3799 |
| Equine | 1293 | 1039 | 1408 | 1653 | 1757 | 1465 | 1635 |
| Pig | 510 | 339 | 568 | 298 | 490 | 478 | 434 |
| Poultry | 24669 | 16972 | 26657 | 23597 | 24369 | 30154 | 41594 |
| Sheep | 12 | 2 | 10 | 13 | 10 | 15 | 10 |
| Goat | 118 | 125 | 662 | 46 | 51 | 36 | 98 |
| Cat | 1429 | 1843 | 1766 | 1773 | 1740 | 1573 | 1708 |
| Dog | 1895 | 2217 | 1798 | 2768 | 2341 | 2399 | 2432 |
| Total population | 45617 | 39021 | 48503 | 46451 | 48214 | 53154 | 65157 |

Figure 1: Graph showing the Livestock Population Trend

The above figure shows overall livestock population irrespective of breeds. As per the figure the livestock population of Paro Dzongkhag is on rise over last four years.

Livestock Production

As seen in the livestock population trend in Paro Dzongkhag in Table 5 and Figure 1, following table shows the production data for last seven years. Different types of products like milk, butter, cheese, meat (Pork, Beef, Yak meat, Chicken) and egg production are compared against each year.

Table 7: Livestock Production Trend in 11th FYP under Paro Dzongkhag (Livestock Statistic 2019)

| Livestock Production | | | | | | | |
|----------------------|-----------|---------|---------|--------|----------|---------|---------|
| Product Type | Year wise | | | | | | |
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| Milk(MT) | 2072.4 | 1829.18 | 1930.83 | 2455.9 | 3288.12 | 3091.82 | 3437.12 |
| Butter(MT) | 64.69 | 48.48 | 87.48 | 94.75 | 112.65 | 104.65 | 107.08 |
| Cheese(MT) | 109.67 | 85.72 | 312.76 | 141.62 | 177.8 | 161.81 | 163.69 |
| Chugo(MT) | 5.9 | 3.72 | 6.31 | 6.51 | 7.47 | 8.41 | 9.09 |
| Pork(MT) | 18.67 | 9.92 | 22.71 | 24.95 | 52.49 | 34.39 | 24.59 |
| Beef(MT) | 25.62 | 8.03 | 6.8 | 4.5 | 4.72 | 7.25 | 30.36 |
| Yak(MT) | 17 | 11.2 | 8.45 | 3.75 | 4.8 | 19.5 | 8.05 |
| Chicken(MT) | 0.83 | 0 | 0.21 | 0.16 | 0.44 | 0 | 0 |
| Eggs(DZ) | 326588 | 202416 | 328439 | 380702 | 422561.1 | 484500 | 756360 |

The following figure shows how the different livestock production is thriving its status in Paro Dzongkhag.

Figure 2: Milk, Butter, Cheese and Chugo production over the years

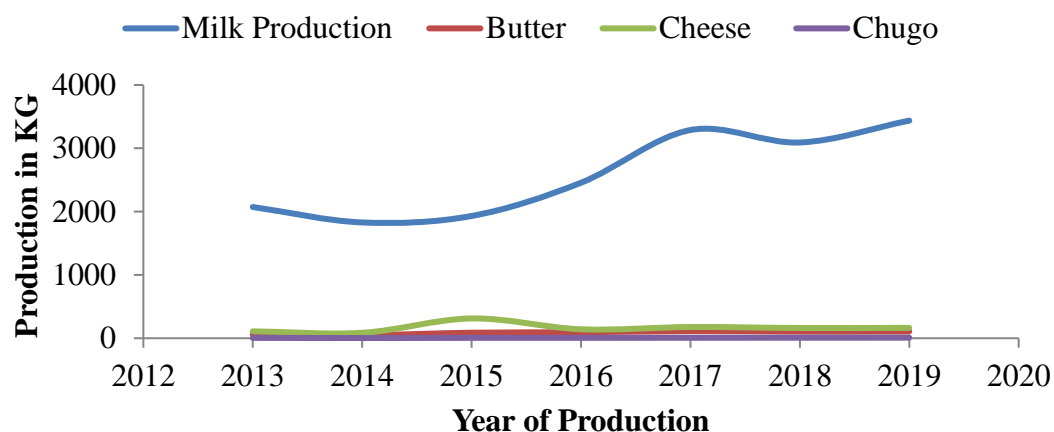


Figure 3: Figure showing the Pork, Beef, Yak Meat and Chicken production in Paro Dzongkhag

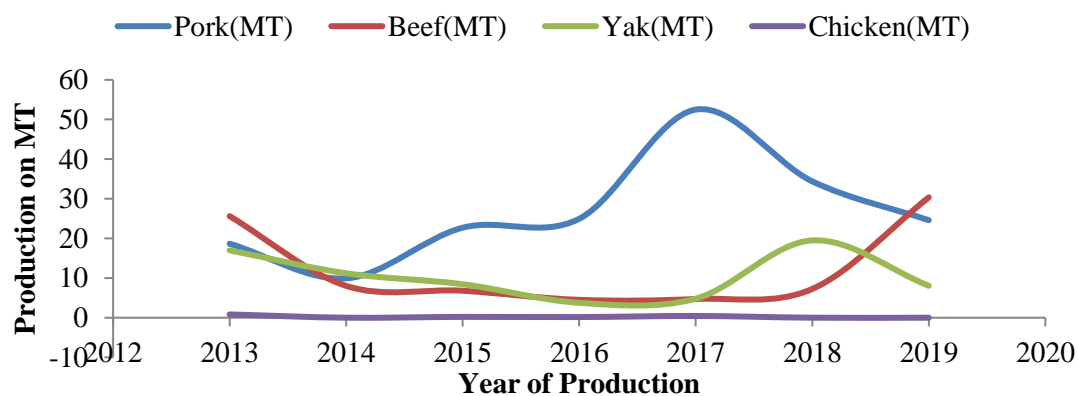


Figure 4: Figure representing egg production in Paro Dzongkhag

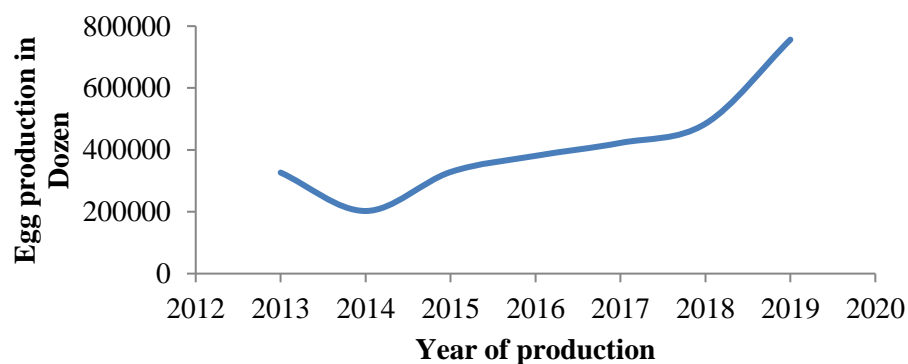
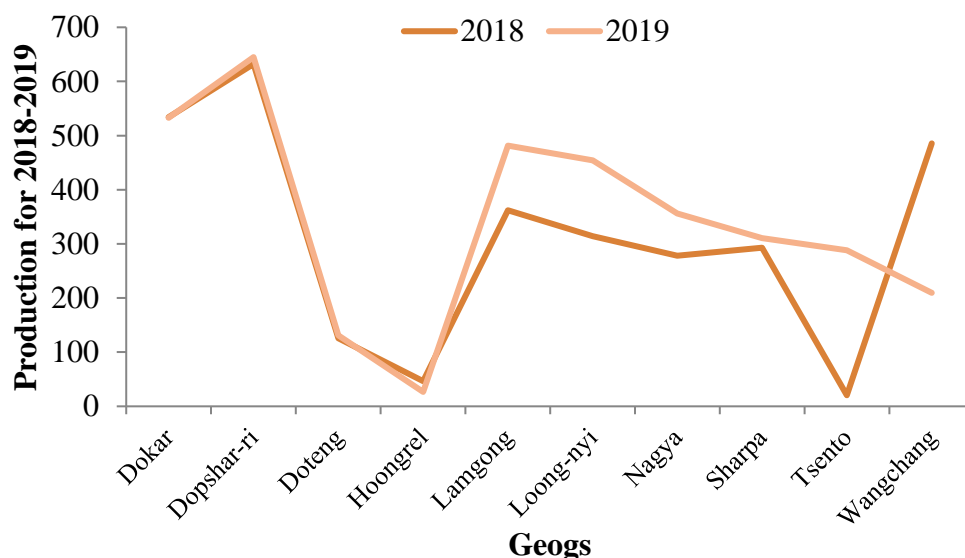


Table 8: Milk production Geog wise in percentage

| FY-2018-2019 | | | FY-2019-2020 | | |
|-------------------------|----------------|------------|----------------|---------------|---------|
| Geog | MT | % | MT | % | Remark |
| Dokar | 534.12 | 17.28 | 532.96 | 15.51 | -0.22% |
| Dopshar-ri | 632.199 | 20.45 | 644.94 | 18.77 | 2.02% |
| Doteng | 125.71 | 4.07 | 131.11 | 3.82 | 4.29% |
| Hoongrel | 46.22 | 1.49 | 26.63 | 0.77 | -42.38% |
| Lamgong | 362.126 | 11.71 | 481.45 | 14.01 | 32.95% |
| Loong-nyi | 314.07 | 10.16 | 454.50 | 13.23 | 29.41% |
| Nagya | 278.1 | 8.99 | 356.41 | 10.37 | 28.16% |
| Sharpa | 293.048 | 9.48 | 310.77 | 9.04 | 6.05% |
| Tsento | 20.43 | 0.66 | 287.98 | 8.38 | 1309.6% |
| Wangchang | 485.795 | 15.71 | 209.80 | 6.10 | -56.81% |
| Total Increase % | 3091.82 | 100 | 3436.55 | 100.00 | |

Figure 5: Comparison of Geog Wise Milk Production for 2018-2019

Although the milk production is increased by 11.15% from year 2018 but 60% of the geogs has decreased its production. The hardest hit was for Wangchang geog with 9.61% decrease followed by Dogar (1.77%), Shari (1.68%), Hungrel (0.72%) and Sharpa (0.44%). Similarly, the production was increase over the year by following geogs. The highest increase in milk production was recorded by Tsento geog with 7.72% increase followed by Lungnyi (3.07%), Lamgong (2.30%) and Naja (1.38%).

Figure 6: Milk production of 2018-2019 in Paro Dzongkhag

Animal Health Section

Clinical health plays a major role in maximizing the livestock production and maintaining the animal welfare. It is said that the nation's development can judge through how the animals are being treated. In the following tables and figures, different types of clinical cases attended are reflected categorically.

Table 9: Clinical report for the year 2019-2020

| Clinical report year wise | | | | |
|---------------------------|---------------|--------|--------|----------------|
| Years | 2018 | | 2019 | Percent Change |
| 1 | Clinical | 75390 | 127127 | 68.63 |
| 2 | De-worming | 62798 | 123452 | 96.59 |
| 3 | Sterilization | 3186 | 1125 | -64.69 |
| 4 | Vaccination | 176335 | 181597 | 2.98 |
| | Total | 311366 | 433301 | 39.16% |

In general animals' treatments are categorized into four distinct forms. One of the any cases will fall under four branches called clinical case, de-worming, sterilization and vaccination. Clinical cases form of treatments can either called as post treatments, meaning, treatment given to specific disease that is causing the animals to fall in sick. Other three forms of treatments can be called as prophylaxis treatment, meaning, and treatment given to prevent the cause of diseases. The overall coverage of the clinical cases attended in 2019 was increased by 39.16% compared to year 2018 however; number of animal sterilized was drastically decreased by 64.69%. The treatment, de-worming and vaccination of the animal were performed more in 2019.

Table 10: Table showing the breed wise vaccination report

The table 9 shows the detail of the species and breeds wise of the animals vaccinated in Paro Dzongkhag during the year 2019.

| Sl No | Species | 2019 | | | | | | | | |
|-------|---------|------|-------|-----|-----|---------|--------|-------|-------|--------|
| | | FMD | BQ&HS | CSF | ARV | DHPPi+L | ND R2B | ND B1 | IBD | F. Pox |
| 1 | Cattle | 7830 | 2235 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Sheep | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Goat | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Pig | 94 | 0 | 64 | 36 | 0 | 0 | 0 | 0 | 0 |
| 6 | Dog | 0 | 0 | 0 | 667 | 233 | 0 | 0 | 0 | 0 |
| 7 | Cat | 0 | 0 | 0 | 77 | 0 | 0 | 0 | 0 | 0 |
| 8 | Poultry | 0 | 0 | 0 | 0 | 0 | 32750 | 28900 | 80000 | 26501 |
| | Total | 7924 | 2235 | 64 | 780 | 233 | 32750 | 28900 | 80000 | 26501 |

(Source: VIS Data)

Table 11: Number of animals sterilized in 2018-2019 in Paro Dzongkhag

The table 10 compares the different livestock species sterilized in 2018 and 2019. In all the cases the number of animals sterilized in 2019 is less than 2018 indicating there is maximum coverage on previous years. As per the data recorded in VIS data system, in 2019 number of animals sterilized by the livestock field staffs have decreased significantly (67%). This might be due to mass sterilization during the year 2018.

Table 12: Comparing the animals sterilized in 2018 and 2019 in Paro Dzongkhag

| Sterilization report for 2018-2019 | | | | |
|------------------------------------|--------|------|------|---------|
| Sl No | Breeds | 2018 | 2019 | Remarks |
| | | Nos | Nos | |
| 1 | Cattle | 212 | 108 | -49% |
| 2 | Horse | 98 | 44 | -55% |
| 3 | Goat | 1 | 2 | 100% |
| 4 | Pig | 113 | 66 | -42% |
| 5 | Dog | 2762 | 809 | -71% |
| 6 | Cat | 192 | 96 | -50% |
| | Total | 3378 | 1125 | -67% |

(Source: VIS Data)

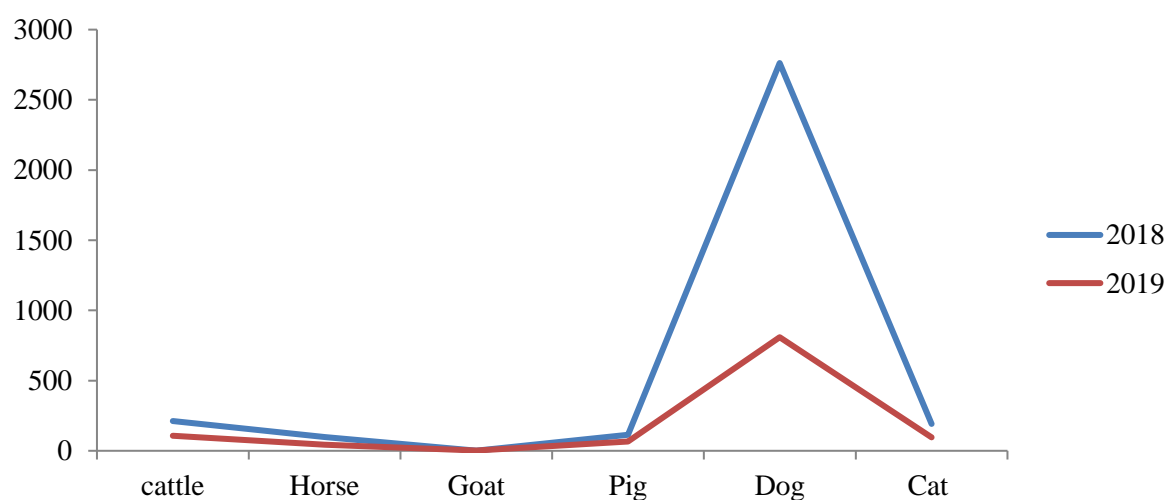
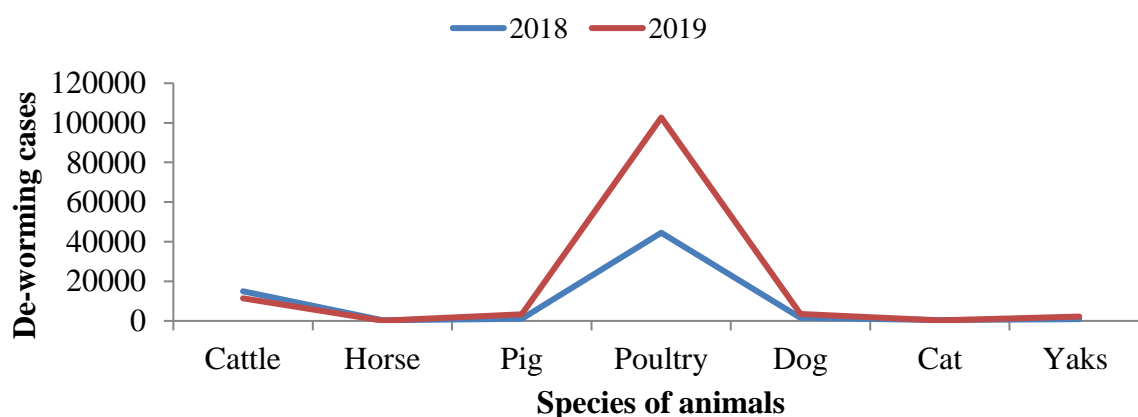
Figure 7: Line graph comparing the animals sterilized in 2018 and 2019 in Paro Dzongkhag

Table 13: Progress for De-worming 2018-2019 in Paro Dzongkhag

The treatment given to animals to prevent from worm infestation is called de-worming. If the animal carries huge worms inside their body, performance of animal will be hampering causing high morbidity to the farmers. Thus, one of the factors that determine the production system is to control the worm infestation in animal or herd. The table below compared and show, species wise animals de-wormed in year 2018 and 2019. In general, animals de-wormed percent is increased by 93.56% but significantly, in 2019 de-worming for horse has decreased to 64.60% followed by cat (31.19%) and cattle (24.19%) respectively. On the flip, de-worming given to pig species is increased by 207.66%, Yak (162.40%), poultry (130.66%) and dog (113.55%). Through this table it is understandable that, de-worming given to large animals has decreased except for yaks and in case of small animals the de-worming cases has increased by double folds. The cases are analyzed and presented in tabular and graphical forms for better understanding.

Table 14: Comparing de-worming in done 2018 & 2019 in Paro Dzongkhag

| Sl No | De-worming | 2018 | 2019 | Remarks |
|-----------------|------------|-------|--------|---------|
| 1 | Cattle | 14967 | 11346 | -24.19% |
| 2 | Horse | 339 | 120 | -64.60% |
| 3 | Pig | 1083 | 3332 | 207.66% |
| 4 | Poultry | 44511 | 102667 | 130.66% |
| 5 | Dog | 1616 | 3451 | 113.55% |
| 6 | Cat | 404 | 278 | -31.19% |
| 7 | Yaks | 859 | 2254 | 162.40% |
| Total de-wormed | | 63779 | 123448 | 93.56% |

Figure 8: Comparing de-worming in done 2018 & 2019 in Paro Dzongkhag

Breed Improvement is one of the most important components in dairy farming. Dairy farmers were not actually monitoring the heat cycle and the body condition scoring of the cows.

Table 15: The AI done and Progeny Born in 2019 in Paro Dzongkhag

| AI Centre | Breed | AI Count 2019 | Progeny | | |
|-------------------|-------|------------------|---------|--------|---------------|
| | | | Male | Female | Total Progeny |
| RNR-EC, Naja | IJ | 722 | 35 | 59 | 94 |
| | YJ | 1357 | 22 | 46 | 68 |
| RNR-EC Shari | IJ | 2633 | 376 | 638 | 1014 |
| | YJ | 4340 | 504 | 672 | 1176 |
| | HF | 223 | 16 | 32 | 48 |
| RNR-EC Tsento | IJ | 1134 | 128 | 128 | 256 |
| | YJ | 1126 | 159 | 126 | 285 |
| | IBS | 35 | 7 | 0 | 7 |
| RNR-EC, Dogar | IJ | 854 | 25 | 29 | 54 |
| | YJ | 2013 | 121 | 200 | 321 |
| RNR-EC Shaba | IJ | 2777 | 474 | 360 | 834 |
| | YJ | 10939 | 2122 | 2864 | 4986 |
| RNR-EC Lungnyi | IJ | 2564 | 419 | 610 | 1029 |
| | YJ | 4833 | 763 | 1064 | 1827 |
| | SS | 4 | 0 | 0 | 0 |
| | HF | 16 | 0 | 0 | 0 |
| RNR-EC Lamgong | IJ | 512 | 9 | 17 | 26 |
| | YJ | 270 | 1 | 12 | 13 |
| | SS | 3 | 0 | 0 | 0 |
| | HF | 8 | 0 | 0 | 0 |
| RNR-EC Doteng | IJ | 2158 | 348 | 387 | 735 |
| | YJ | 2158 | 312 | 408 | 720 |
| | HF | 56 | 11 | 10 | 21 |
| DVH | IJ | 14892 | 1553 | 1710 | 3263 |
| | YJ | 10651 | 912 | 1176 | 2088 |
| | SS | 6 | 0 | 0 | 0 |
| | Total | 66284 | 8317 | 10548 | 18865 |
| PRONGENY CALVED % | | | | | 28.46 |

Figure 9: Graphical presentation of breed wise AI performed 2019-2020 in Paro Dzongkhag

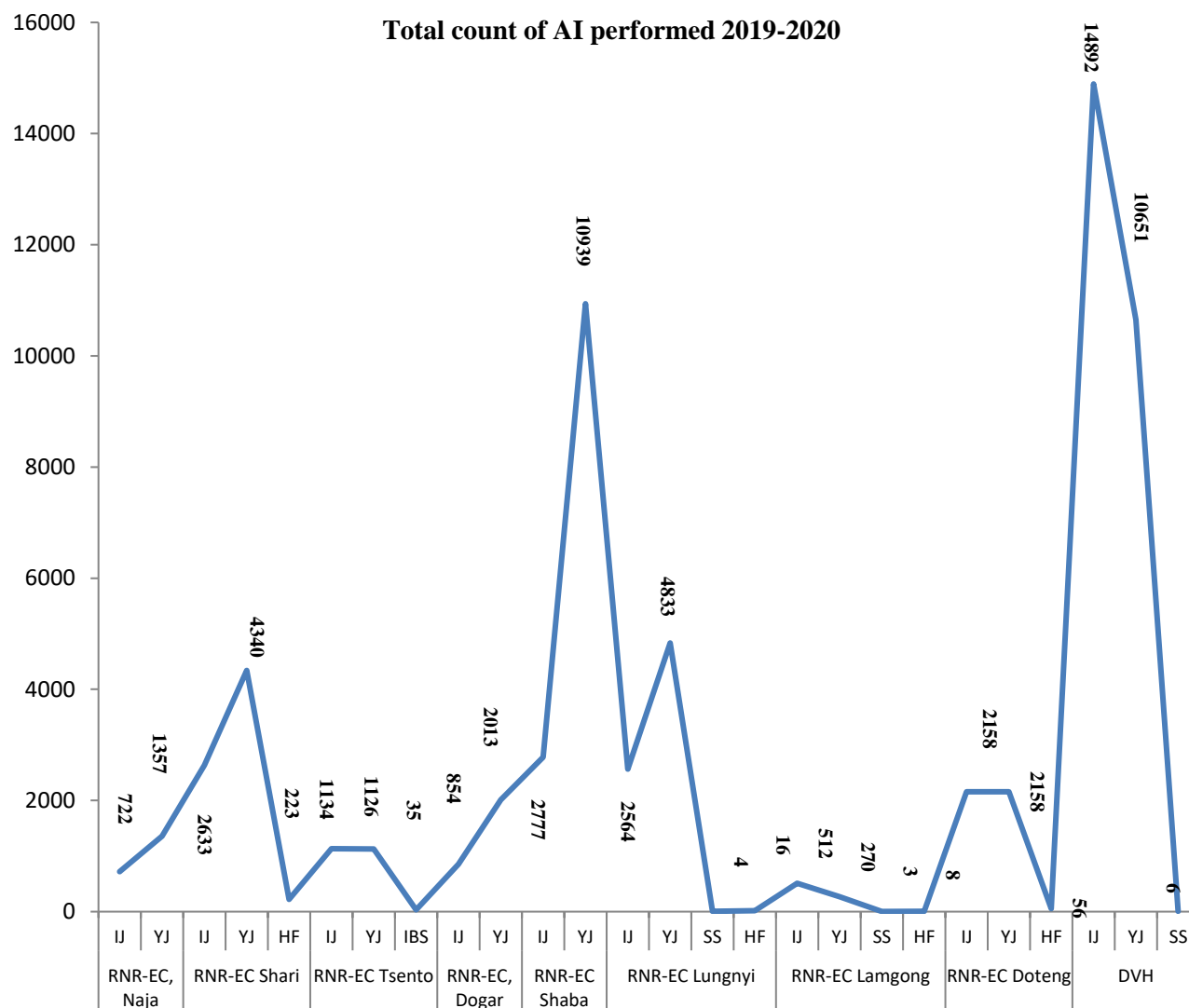
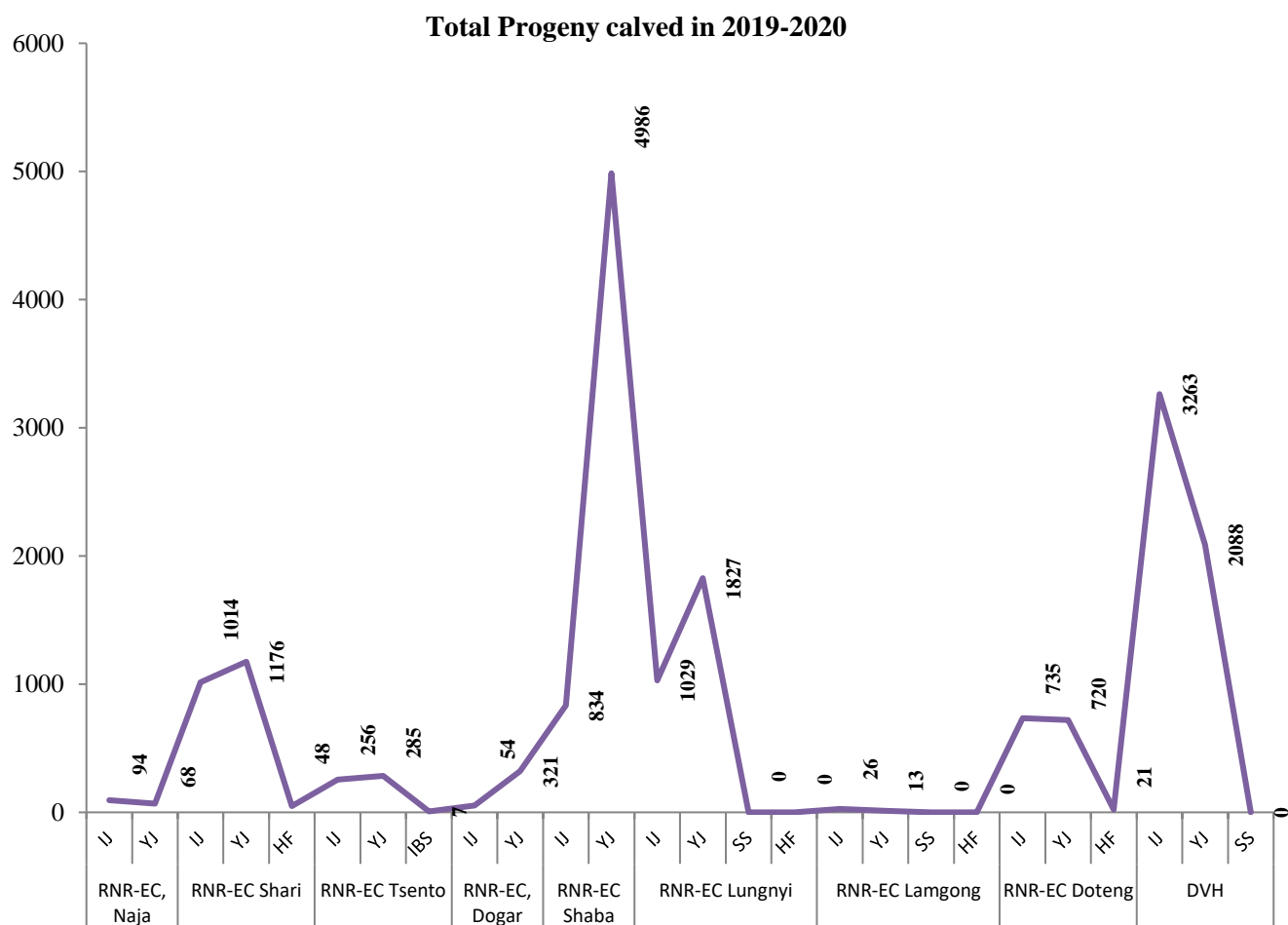


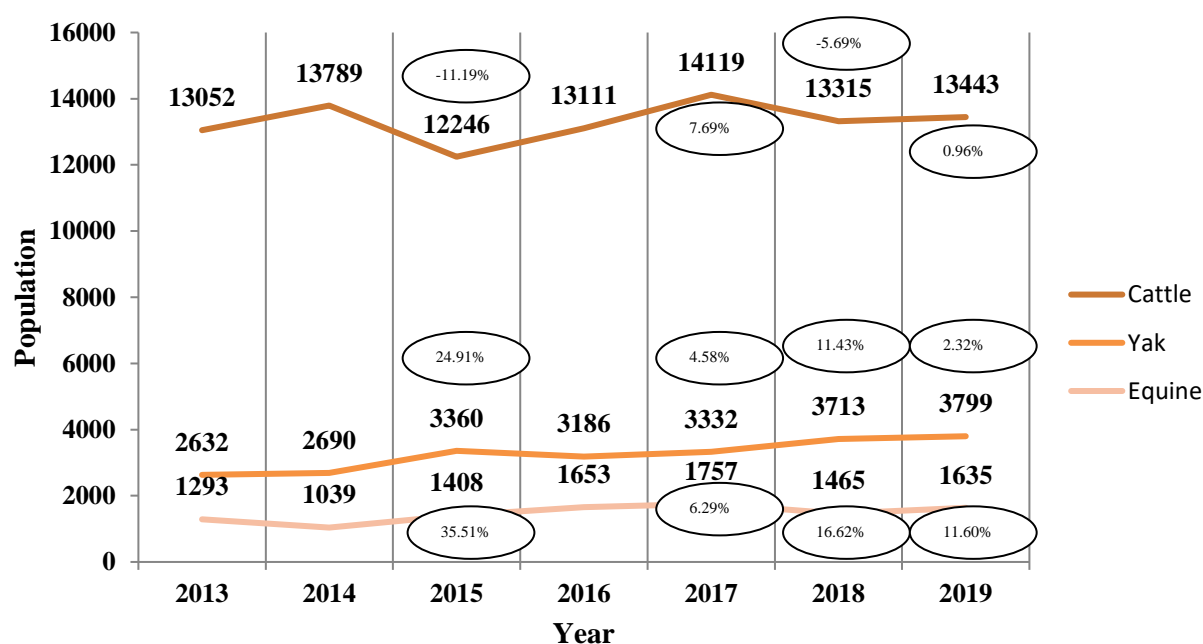
Figure 10: Graphical presentation of progeny born in 2019-2020 in Paro Dzongkhag



Cattle, Yak & Horses Population Trend

The line graph represents Cattle, Yak and Horse population trend for seven years from 2013 to 2019 in Paro Dzongkhag. As per the graphical analysis, cattle, yak and horse population in Paro Dzongkhag remains inconsistent. While in 2015, when the cattle population was decreased by 11.19% from previous year 2014, Yak and Horse population has increased by 24.91% and 35.51% respectively. However, in 2016, cattle and horse population growth rate has increased but yak population has entered negative population growth rate. In 2017 the population growth rate was increasing with Cattle (7.69%), Yak (4.58%) and Horse (6.29%) and in flowing year in 2018, the cattle population growth rate was decreased by 5.69%, Yak was increased by 11.43% and the horse population was decreased by 16.62%. The year 2019 was good year for livestock rearing farmers because the cattle population was increased by 0.96%, Yak by 2.32% and equine population by 11.60% respectively.

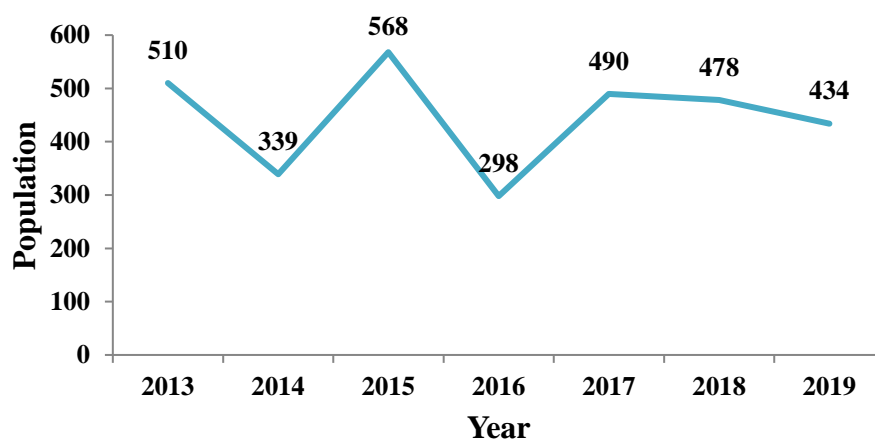
Figure 11: Large animal population trend in Paro Dzongkhag



Pig population trend (2013-2019)

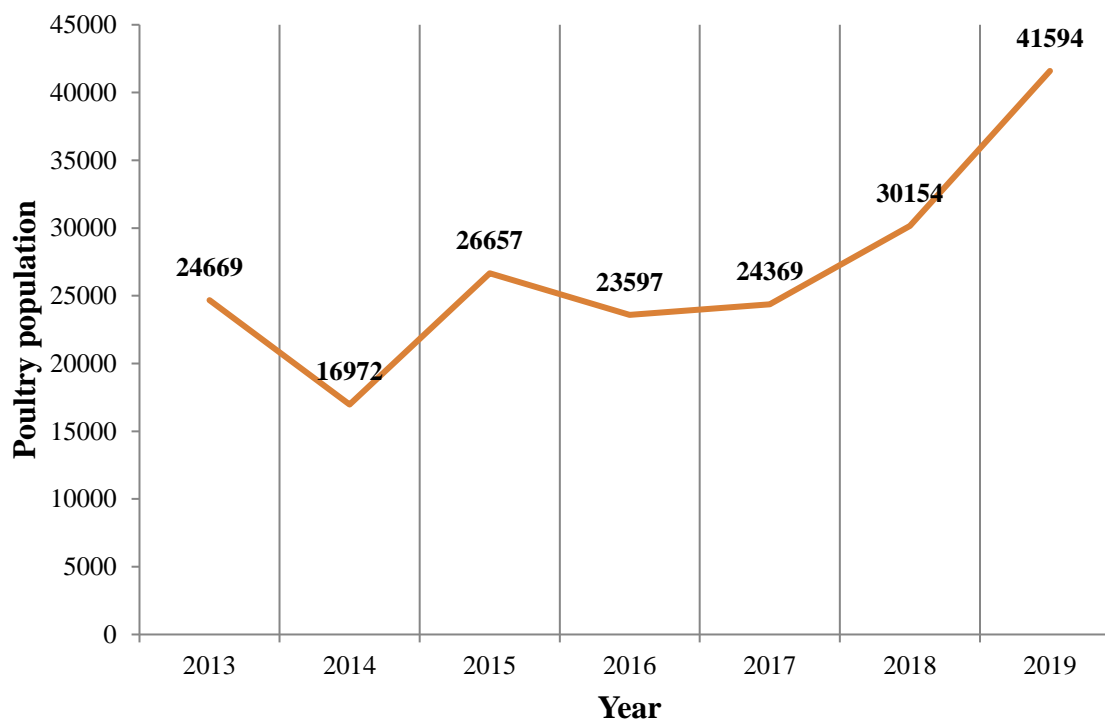
Pig farming system is facing lots of issues from public and Civil Society Organizations (Tshethar Tshogpa). With these constant challenges, piggery population in Paro Dzongkhag is declining steadily. Even, for the year 2019-2020 APA, sector couldn't achieve the pork production target solely because of more than 70 heads of pigs were sold to Tshethar Tshogpa and some of the pig rearing farms has to get closed down. Owing to such challenges from by Tshethar Tshogpa, sector has begun to assess the farms that are operated by Tshethar Tshogpa but it was found out that they are lacking facilities that are mentioned in the Tshethar Guideline ultimately animals are suffering from inadequate feed, no proper shed and overcrowding due to lack of space. The figure below shows the pig population trend in Paro Dzongkhag.

Figure 12: Piggery population trend in Paro Dzongkhag



Poultry population trend (2013-2019)

There are at least 55 poultry farms classified into different categories from backyard to semi-commercial and commercial farms. On an average, every layer is producing 20.19 eggs per month per hen. In 2019, Paro Dzongkhag had produced 756360 dozen of eggs from 41594 laying hens. The table below shows the poultry population trend over last seven years and from 2016 onwards poultry population is increasing symbolizing the poultry farming is extensively practicing by the public of Paro Dzongkhag.

Figure 13: Poultry population trend in Paro Dzongkhag

Subsidy supports

For the financial year 2019-2020, subsidies were provided to the farmers of Paro Dzongkhag on following

Cow and yak subsidy support

Total of 69 Jersey cows and 19 yaks were provided under CSM policy guideline 2019. This was mainly aimed at to increase the milk production and to improve the breeds of animals. Farmers were paid 30% subsidy support in procuring an animal as reflected in tabular below. The cost price of animals was fixed at not more than Nu: 80000/cow.

Table 16: Dairy cow support distribution in Paro Dzongkhag

| Sl | Geog | Jersey Cow | Yak | Total Animal | Expenditure |
|----|----------|------------|-----|--------------|-------------|
| 1 | Dogar | 11 | 0 | 11 | 213450.00 |
| 2 | Dopshari | 11 | 0 | 11 | 228700.00 |
| 3 | Doteng | 9 | 3 | 12 | 240350.00 |
| 5 | Lamgong | 10 | 0 | 10 | 215250.00 |
| 6 | Luni | 12 | 0 | 12 | 223950.00 |

| | | | | | |
|---|--------------|-----------|-----------|-----------|-------------------|
| 7 | Naja | 10 | 0 | 10 | 186450.00 |
| 8 | Shaba | 6 | 0 | 6 | 121050.00 |
| 9 | Tsento | 0 | 16 | 16 | 336600.00 |
| | Total | 69 | 19 | 88 | 1765800.00 |

Dairy shed subsidy support

For the financial year 2019-2020, seventy households were supported with dairy shed subsidy aiming at improving the livestock husbandry practices. The table below shows total of household in each geog the Dzongkhag Livestock Sector has supported.

Table 17: Dairy shed distribution in Paro Dzongkhag

| SL | Geog | No of shed | Cement supply | CGI Sheet | Remarks |
|----|--------------|------------|---------------|-------------|---------|
| 1 | Dopshari | 10 | 300 | 240 | |
| 2 | Lamgong | 8 | 240 | 180 | |
| 3 | Shaba | 7 | 249 | 140 | |
| 4 | Naja | 12 | 360 | 240 | |
| 5 | Dogar | 10 | 300 | 200 | |
| 6 | Doteng | 9 | 180 | 180 | |
| 7 | Luni | 9 | 180 | 160 | |
| 8 | Wangchang | 5 | 150 | 100 | |
| | Total | 70 | 1959 | 1440 | |

Silo pit subsidy supports

Total of seventy six silo pit was supported during the financial year 2019-2020. Farmers were provided with CGI sheet and cement to build the silo pit. The detail of distribution is shown in the table below:-

Table 18: Silo pit distribution in Paro Dzongkhag

| SL | Geog | Silo pit | Cement supply | CGI Sheet supply | Remarks |
|----|----------|----------|---------------|------------------|---------|
| 1 | Dogar | 15 | 150 | 90 | |
| 2 | Dopshari | 48 | 380 | 228 | |

| | | | | | |
|---|--------------|-----------|------------|------------|--|
| 3 | Lamgong | 5 | 50 | 30 | |
| 4 | Shaba | 2 | 20 | 12 | |
| 5 | Doteng | 1 | 10 | 6 | |
| 6 | Luni | 5 | 50 | 30 | |
| | Total | 76 | 660 | 396 | |

Piggery sty support and distribution in Paro Dzongkhag

Piggery farming is facing series of challenges from religious communities but Dzongkhag Livestock Sector has supported 25 piggery rearing farmers. Some of the sty was supported by geog budget. The farmers were provided with cement and CGI sheets to construct the piggery sty. The table below show the list of farmers who are supported in establishing the piggery farm:-

Table 19: Piggery shed distribution in Paro Dzongkhag

| Sl No | Geog | Pig sty No | Remarks |
|-------|--------------|------------|-------------|
| 1 | Lamgong | 4 | |
| 2 | Shari | 1 | |
| 3 | Tsento | 14 | Geog Budget |
| 4 | Shaba | 2 | |
| 5 | Lungnyi | 3 | |
| 6 | Doteng | 1 | |
| | Total | 25 | |

Poultry shed support and distribution in Paro Dzongkhag

There are more than fifty poultry farms in Paro Dzongkhag but to add up the egg production Dzongkhag has supported 12 poultry coops in various geogs. Detail of the distribution is shown in table below:-

Table 20: Poultry coop distribution in Paro Dzongkhag

| SI No | Geog | Poultry Coops | Remarks |
|-------|--------------|---------------|-------------|
| 1 | Lamgong | 6 | Geog Budget |
| 2 | Dogar | 2 | Geog Budget |
| 3 | Tsento | 1 | Geog Budget |
| 4 | Lungnyi | 3 | Geog Budget |
| | Total | 12 | |

Dairy equipment support

The dairy group was supported with display refrigerators, deep fridge and weighing balance.

Total of five display refrigerators were distributed in following geogs:-

1. Lamgong geog : 2 numbers
2. Naja geog : 1 number
3. Tsento geog : 1 number
4. Milk outlet : 1 number

Table 21: Capacity development for farmers

| Subject | Total beneficiaries | Remarks |
|--|---------------------|-------------|
| Training on poultry management | 60 farmers | Shari Geog |
| Training on Highlander on yak management | 43 farmers | Tsento geog |
| Total farmers trained | 103 farmers | |

Support from external agencies

To support the dairy farmers group Department of Agriculture and Marketing Cooperative (DAMC) has supported the following equipment for Dzongkhag Livestock Sector during financial year 2019-2020. This was mainly aimed at enhancing the marketing strategy.

- | | |
|---------------------------|-------------|
| 1. Display refrigerator | : 3 numbers |
| 2. Deep fridge | : 1 number |
| 3. Vacuum packing machine | : 1 number |
| 4. Cool box | : 4 numbers |

The National Highland Research Developemnt Centre (NHRDC) in collaboration with Department of Livestock (DoL) has supported the following items for our highland communities aiming at improving the highlander dairy products.

- | | |
|-------------------------|--------------|
| 1. Display refrigerator | : 1 number |
| 2. Fridge | : 1 number |
| 3. Butter churner | : 36 numbers |
| 4. Chaff cutter | : 1 number |
| 5. Milking bucket | : 6 number |
| 6. Milk can | : 4 numbers |
| 7. Lactometer | : 4 numbers |
| 8. Winter fodder seed | : 8450 Kg |
| 9. Maize seed | : 1300 Kg |

Table 22: LG Elected members Dogar Geog

| Name | Designation | Contact no |
|---------------|-----------------------------|-------------------|
| Lhab Tshering | Gup | 17608309 |
| Kinley Penjor | Mangmi | 17498712 |
| Rinzin | Tshokpa-Dawakha -Tshongkha | 17521055 |
| Gyem Rinzin | Tshokpa-Tsephu-Tencheykha | 17653305 |
| Dawa | Tshokpa-Issuna-Mendrey | 77478365 |
| Dorji | Tshokpa-Khamdra-Sali | 17665776 |
| Ugyen | Tshokpa-Goensakha-Phuchekha | 17831271 |

Table 23: Local Government officials Dop Shari Geog

| Name | Designation/Location | Contact No. |
|----------------|------------------------------|--------------------|
| Tshering Dorji | Gup | 17919990 /77444121 |
| Jou | Mangmi | 17650394 |
| Kinga Tenzin | Duezhi_JipaTshogpa | 17665313 |
| Phub Gyeltshen | Jangsa_JookaTshogpa | 17641170 |
| Chencho Wangdi | JizhigangTshogpa | 17679448 |
| Pemba Zangmo | Kempa_KuduphuTshogpa | 17686494 |
| Kinley Wangmo | Rinchhending_ShariTshogpa | 17941817 |
| TashiPelden | Gewog Administrative Officer | 17552617 |
| TsheringDorji | Gaydrung | 17823998 |
| JyotiBala Rai | Accountant | 17774496 |

Table 24: Doteng Geog

| Name | Designation | Contact no |
|-------------|--------------------|-------------------|
| Letho | Gup | 17625504 |
| Chimi Dorji | Mangmi | 17621763 |

| | | |
|---------------|--------------------------|----------|
| SangayTenzin | Jabji_Loogchhoed Tshogpa | 17633757 |
| Chencho Norbu | ChhubarTshogpa | 17705565 |
| Rinzin | Aatsho_PunoobTshogpa | 17608786 |
| Tshering | Phooshar Tshogpa | 17536739 |
| Phub Dorji | Joogar_PachhuTshogpa | 1785291 |

Table 25: Hungrel Geog

| Name | Gewog/Chiwog | Contact # |
|----------------------|---------------------|------------------|
| Gyem Thinley | Gup | 17606711 |
| Sherab Lham | Mangmi | 17508940 |
| Tshering | - | 17805243 |
| Jamyang Sherab Dorji | Geydrung | 17780362 |
| Yuden | Tshogpa Hungrelkha | 17381366 |
| Kinley Jamtsho | Tshogpa Gaupay | 17537202 |
| Ugyen Tsheing | Tshogpa Genkha | 17403031 |
| Karma Om | Tshogpa Chubjikha | 17957730 |
| Dema | Tshogpa Lunchuna | 17622627 |

Table 26: Lamgong Geog

| Name | Designation | Contact No |
|--------------|--------------------|-------------------|
| Gem Tshering | Gup | 17606654 |
| Gem Dorji | Mangmi | 17665532 |
| Lhab Gem | Geydrung | |
| Lhendrup | Care taker | 17331324 |

Table 27: Local government officials Lungnyi

| Name | Designation | Contact No. |
|-------------|--------------------|--------------------|
| Jamtsho | Gup | 17703795 |

| | | |
|-----------------|---------------------|----------|
| Tshering | Mangmi | 77227407 |
| Chencho | Geydung | 17257397 |
| Phutsho Wangdi | Forest | 17681453 |
| Thinley Jamtsho | Livestock | 17757738 |
| Yeshe Dorji | Agriculture | 17493929 |
| Tsherig Dorji | Dzongdrakha Tshogpa | 17642017 |
| Tshering | Pangbisa | 77440839 |
| Khandu | Nemjo | 17731571 |
| Chencho Gem | Bangdey | 17640862 |
| Gyeltshen | Jew-Wochu | 17657382 |

Table 28: Local Government Officials Naja

| Name | Designation | Contact No. |
|-----------------|--------------------------------|--------------------|
| Kinley Wangdi | Gup | 77345157 |
| Cundu Tshering | Mangmi | 17777363 |
| Jampel Dorji | Tshogpa (Zursuna-Wanakha) | 17626290 |
| Nim Tshering | Tshogpa (Jashina-Tsuengoen) | 17590786 |
| Lobzang Nima | Tshogpa (Rashigang- Tshegoen)) | 77433937 |
| Tshering Pem | Tshogpa (Bueltikha-Jagoen) | 17658873 |
| Chencho Passang | Tshogpa(Bemphu-Lingshi-Nagu) | 17605538 |
| Nima Gyeltshen | Gaydrung | 17514101 |

Table 29: Local government officials Shaba

| Name | Designation | Contact no |
|-------------------|---------------------------|-------------------|
| Chencho Gyeltshen | Gup | 17607281 |
| Sangay Dorji | Mangmi | 17612932 |
| Pempa Tshering | Tshokpa(Bjisikha-phubana) | 17839838 |
| Chencho Gyeltshen | Tshokpa(Chukha-Goonjukha) | 17601048 |

| | | |
|-----------------|---------------------------|----------|
| Lotey Gyeltshen | Tshokpa(Dochorten-Nyephu) | 17337729 |
| Nidup | Tshokpa(Drujyeldingkha) | 17999832 |
| Chencho Zangmo | Tshokpa(Bara-Zhungkarna) | 17274055 |

Table 30: Tsento Geog Local leaders

| Name | Designation | Contact No |
|-------------------|----------------------|------------|
| Dolay Tshering | Gup | 17642054 |
| Chencho Gyeltshen | Mangmi | 17394376 |
| Kaka | Shana Tshogpa | 77411726 |
| Lhab Tshering | Zamsa Tshogpa | 17888449 |
| Cimi Dorji | Phongdo Tshhogpa | 17665128 |
| Dophu | Shari Tshogpa | 77375292 |
| Tobgay | Yaksa & Nubri Tshopz | 17679968 |
| Yeshey Wangmo | GAO | 17653337 |
| Phurba Thinley | Geydrung | 17887136 |
| Tshetemo | Care taker | 17676125 |

Table 31: Wangchang Geog local leaders

| Name | Designation | Contact no |
|------------------|---------------------------------|------------|
| Kuenzang Rinzin | Gup | 17602725 |
| Passang | Mangmi | 17612620 |
| Phub Dem | Tshogpa(Chamedthangka-Khangkhu) | 17580226 |
| Kencho | Tshogpa(Gaptey-Olathang) | 17905166 |
| Phuntsho | Tshogpa(Nakha-Mendi) | 17392513 |
| Tshering Penjore | Tshogpa(Namkar-Dungkar) | 17606039 |
| Dolay | Tshogpa(Chang-Jangtena) | 17893006 |
| Tshering Lhamo | Accountant | 77618192 |
| Gem Dorji | Agriculture | 17743529 |

| | | |
|------------------|-----------|----------|
| Cheten Gyeltshen | Livestock | 17645698 |
| Tsheten Lhamo | Gedrung | 17955703 |
| Tshewang Nidup | Forestry | 17746074 |

Conclusion

In conclusion, the sector would like to thank each and every staff for their timeless efforts and contribution in making a year successful for everyone. Similar data will be maintained and reports will be produced every year in order to compare and see the efforts made by each one for the benefits of our farmers. These data will be used for further planning and analysis of the new situations.

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