

# AGRICULTURE STATISTICS 2017



RNR STATISTICS DIVISION  
MINISTRY OF AGRICULTURE & FORESTS  
ROYAL GOVERNMENT OF BHUTAN  
THIMPHU : BHUTAN

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Renewable Natural Resources Statistics Division (RSD)

Directorate Services

Ministry of Agriculture of Forests (MoAF)

Royal Government of Bhutan

# AGRICULTURE STATISTICS 2017



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ROYAL GOVERNMENT OF BHUTAN  
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ROYAL GOVERNMENT OF BHUTAN  
Ministry of Agriculture and Forests  
Thimphu : Bhutan



## FOREWORD

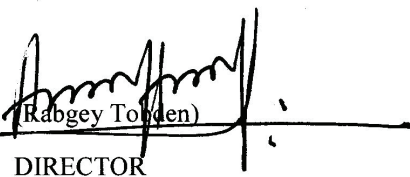
We are pleased to release the Annual Agriculture Statistics for the year 2017. It presents data on demography of farming population, land holdings, land use, crop area, yield, production, utilization of crops and other general aspects disaggregated at Dzongkhag level.

This is the first survey conducted and published by RNR Statistics Division (RSD), Directorate Services, MoAF. Prior to this, the Information and Management Section of the Department of Agriculture used to conduct the survey.

We are further glad to note that this survey employed Computer Assisted Personal Interviewing (CAPI) method which is a sign that our data collection methods are coming of age and moving away from traditional pen-and-paper approach and greatly enhancing the timeliness of data dissemination to the public.

I hope this publication will prove beneficial for planners, policymakers, researchers, extension personnel, academicians and those who are involved in the developmental activities of the agricultural sector.

We are very grateful to the Agriculture Extension Supervisors in the field for their dedicated effort in enumerating the sample farmers in their respective Gewogs and then diligently submitting the data to RSD on time. The supervisory work of the Dzongkhag Agriculture Officers/Assistant Dzongkhag Agriculture Officers during the survey is very much appreciated. Last but not the least, our deep-felt thanks goes to the farmers who have provided the data year in year out.

  
(Rabgey Tonden)  
DIRECTOR



## Table of Contents

|  |     |
|--|-----|
| PART 1 .....   | vii |
| METHODOLOGY .....                                      | vii |
| 1. Introduction .....                                  | 1   |
| 2. Objectives .....                                    | 1   |
| 3. Sampling Frame.....                                 | 2   |
| 4. Survey Design .....                                 | 3   |
| 5. Data Collection, processing & analysis .....        | 5   |
| 6. Survey Coverage and Scope .....                     | 7   |
| PART 2.....  | 1   |
| NATIONAL LEVEL STATISTICS.....                         | 1   |
| 7. Demographic Characteristics.....                    | 10  |
| 8. Population of Farmers .....                         | 17  |
| 9. Land Utilization 2017.....                          | 22  |
| 10. Crop Production.....                               | 25  |
| 11. Fruit Production.....                              | 27  |
| 12. Crop Utilization for 2017 .....                    | 28  |
| 13. Fruit Utilization for 2017.....                    | 30  |
| 14. HHs Cash Income.....                               | 31  |
| 15. Food Security.....                                 | 33  |
| 16. Farming Constraints Faced.....                     | 35  |
| 17. Crop damage by wild animals .....                  | 37  |
| 18. Crop Guarding .....                                | 43  |
| PART 3 .....   | 45  |
| DZONGKHAG LEVEL CROP AREA & PRODUCTION STATISTICS..... | 45  |
| 19. Cereal Crops .....                                 | 46  |
| 20. Vegetable Crops .....                              | 55  |

|     |                          |    |
|-----|--------------------------|----|
| 21. | Spices.....              | 75 |
| 22. | Oil Seeds.....           | 78 |
| 23. | Legumes and Pulses ..... | 82 |
| 24. | Roots and Tubers.....    | 84 |
| 25. | Other Fruit Crops.....   | 90 |



## LIST OF TABLES

|   |    |
|---|----|
| Table 1: Coverage of Rural households by the survey 2017 .....  | 8  |
| Table 2: Farming household member residing on farm in 2017 .....  | 10 |
| Table 3: Dzongkhag wise estimated total population residing on farm by sex in 2017 .  | 12 |
| Table 4: Proportion of the household members presently living and eating together in the farm households by education level ..... | 15 |
| Table 5: Proportion of the household members presently living and eating together in the farm households by Occupation .....      | 16 |
| Table 6: Farmers Population in 2017 by sex .....  | 17 |
| Table 7: Farmers Population in 2017 by age interval.....  | 19 |
| Table 8: Farmers Population in 2017 by education level attended.....  | 20 |
| Table 9: Dryland utilization by farming households in 2017 (acres) .....  | 22 |
| Table 10: Wetland utilization in 2017 by farming households (acres).....  | 23 |
| Table 11: Cereal, Oilseeds, Spices, Legumes & Pulses and Roots/Tubers .....   | 25 |
| Table 12: Vegetable and Potato Production in 2017 .....   | 26 |
| Table 13: Fruits Production .....   | 27 |
| Table 14: Utilization of Cereals, Spices, Legumes & Pulses, Oil seeds, Cucurbits and Roots & Tuber .....                          | 28 |
| Table 15: Utilization of Vegetables and Potato.....   | 29 |
| Table 16: Fruits Utilization .....  | 30 |
| Table 17: Cash income from forest edible products and other activities in 2017 .....  | 31 |
| Table 18: Cash income from processed cereal products (Processed from own produced crop).....                                      | 31 |
| Table 19: Crops from own production sold in last one year.....  | 32 |
| Table 20: Proportion of farming households by self-sufficiency of food (agriculture crops) for 2017 .....                         | 33 |
| Table 21: Food shortage coping mechanism in 2017 .....  | 34 |
| Table 22: Proportion of HHs affected by the various farming constraints in the year 2017.....                                     | 35 |
| Table 23: Estimated Paddy quantity lost to the wild animals.....  | 37 |
| Table 24: Estimated Maize quantity lost to the wild animals.....  | 38 |
| Table 25: Estimated Wheat quantity lost to the wild animals .....   | 39 |
| Table 26: Estimated Barley quantity lost to the wild animals .....  | 39 |
| Table 27: Estimated Millet quantity lost to the wild animals .....  | 40 |
| Table 28: Estimated Buckwheat quantity lost to the wild animals.....  | 40 |
| Table 29: Estimated Vegetable quantity lost to the wild animals .....   | 41 |
| Table 30: Estimated Potato quantity lost to the wild animals .....  | 42 |

|  |    |
|--|----|
| Table 31: Dzongkhag wise estimated average number of days and nights spent in guarding crops from wild animal damages in 2017..... | 43 |
| Table 32: Paddy harvested area (Acres), Production (MT) and Yield (Kg/Acre).....   | 46 |
| Table 33: Maize harvested area (Acres), Production (MT) and Yield (Kg/Acre).....   | 48 |
| Table 34: Wheat harvested area (Acres), Production (MT) and Yield (Kg/Acre) .....  | 50 |
| Table 35: Barley harvested area (Acres), Production (MT) and Yield (Kg/Acre) .....   | 50 |
| Table 36: Buckwheat harvested area (Acres), Production (MT) and Yield (Kg/Acre)..  | 51 |
| Table 37: Millet harvested area (Acres), Production (MT) and Yield (Kg/Acre) .....   | 52 |
| Table 38: Amaranth harvested area (Acres), Production (MT) and Yield (Kg/Acre)....   | 54 |
| Table 39: Quinoa harvested area (Acres), Production (MT) and Yield (Kg/Acre).....  | 54 |
| Table 40: Potato harvested area (Acres), Production (MT) and Yield (Kg/Acre).....  | 55 |
| Table 41: Asparagus harvested area (Acres), Production (MT) and Yield (Kg/Acre) ...  | 57 |
| Table 42: Chilli harvested area (Acres), Production (MT) and Yield (Kg/Acre).....  | 58 |
| Table 43: Cabbage harvested area (Acres), Production (MT) and Yield (Kg/Acre).....   | 59 |
| Table 44: Cauliflower harvested area (Acres), Production (MT) and Yield (Kg/Acre) .  | 60 |
| Table 45: Carrot harvested area (Acres), Production (MT) and Yield (Kg/Acre).....  | 61 |
| Table 46: Radish harvested area (Acres), Production (MT) and Yield (Kg/Acre).....  | 62 |
| Table 47: Turnip harvested area (Acres), Production (MT) and Yield (Kg/Acre).....  | 63 |
| Table 48: Beans harvested area (Acres), Production (MT) and Yield (Kg/Acre) .....  | 64 |
| Table 49: Green Peas harvested area (Acres), Production (MT) and Yield (Kg/Acre)..   | 65 |
| Table 50: Tomato harvested area (Acres), Production (MT) and Yield (Kg/Acre) .....   | 66 |
| Table 51: Broccoli harvested area (Acres), Production (MT) and Yield (Kg/Acre).....  | 67 |
| Table 52: Onion harvested area (Acres), Production (MT) and Yield (Kg/Acre).....   | 68 |
| Table 53: Garlic harvested area (Acres), Production (MT) and Yield (Kg/Acre).....  | 69 |
| Table 54: Eggplant harvested area (Acres), Production (MT) and Yield (Kg/Acre).....  | 70 |
| Table 55: Lady Finger harvested area (Acres), Production (MT) and Yield (Kg/Acre)  | 71 |
| Table 56: Greenleaves harvested area (Acres), Production (MT) and Yield (Kg/Acre)  | 72 |
| Table 57: Cucurbits Production (MT) .....  | 73 |
| Table 58: Cultivated Mushroom Production (MT).....   | 74 |
| Table 59: Ginger harvested area (Acres), Production (MT) and Yield (Kg/Acre).....  | 75 |
| Table 60: Cardamom harvested area (Acres), Production (MT) and Yield (Kg/Acre)..   | 76 |
| Table 61: Ground nut harvested area (Acres), Production (MT) and Yield (Kg/Acre)..   | 78 |
| Table 62: Sunflower harvested area (Acres), Production (MT) and Yield (Kg/Acre) ...  | 78 |
| Table 63: Mustard harvested area (Acres), Production (MT) and Yield (Kg/Acre).....   | 79 |
| Table 64: Soya bean harvested area (Acres), Production (MT) and Yield (Kg/Acre) ....   | 80 |
| Table 65: Pyrilla (Naam) harvested area (Acres), Production (MT) and Yield (Kg/Acre)<br>.....                                      | 81 |
| Table 66: Niger harvested area (Acres), Production (MT) and Yield (Kg/Acre).....   | 81 |

|  |     |
|--|-----|
| Table 67: Rajma bean harvested area (Acres), Production (MT) and Yield (Kg/Acre) . | 82  |
| Table 68: Mung bean harvested area (Acres), Production (MT) and Yield (Kg/Acre)..  | 83  |
| Table 69: Sweet Potato harvested area (Acres), Production (MT) and Yield (Kg/Acre) | 84  |
| Table 70: Tapioca harvested area (Acres), Production (MT) and Yield (Kg/Acre)..... | 85  |
| Table 71: Apple Production and Yield .....   | 86  |
| Table 72: Mandarin Production and Yield .....                                      | 88  |
| Table 73: Areca nut Production and Yield .....                                     | 90  |
| Table 74: Mango Production and Yield .....   | 90  |
| Table 75: Pear Production and Yield.....   | 91  |
| Table 76: Peach Production and Yield .....   | 92  |
| Table 77: Plum Production and Yield .....  | 93  |
| Table 78: Walnut Production and Yield.....   | 94  |
| Table 79: Jack Fruit Production and Yield.....                                     | 95  |
| Table 80: Guava Production and Yield .....   | 96  |
| Table 81: Papaya Production and Yield .....  | 97  |
| Table 82: Pomegranate Production and Yield.....                                    | 98  |
| Table 83: Litchi Production and Yield .....  | 99  |
| Table 84: Persimmon Production and Yield.....                                      | 100 |
| Table 85: Banana Production and Yield.....   | 101 |
| Table 86: Date Plum (Gendum) Production and Yield .....                            | 102 |
| Table 87: Avocado Production and Yield .....                                       | 103 |
| Table 88: Apricot Production and Yield.....  | 104 |
| Table 89: Tree Tomato Production and Yield .....                                   | 105 |
| Table 90: Other Fruit Production (MT).....   | 106 |

## LIST OF FIGURES

|  |    |
|--|----|
| Figure 1: Total population residing on farm by sex, 2017 .....   | 13 |
| Figure 2: Dzongkhag wise population residing on farm pyramid by sex, 2017 .....  | 14 |
| Figure 3 : Population of farmers in 2017 by sex .....  | 18 |
| Figure 4: Population of farmers in 2017 by age interval .....  | 19 |
| Figure 5: Population of farmers in 2017 by education level attended .....  | 21 |
| Figure 6: Proportion of HHs using various coping mechanisms to address the food<br>(agriculture crops) shortage in the year 2017 ..... | 34 |
| Figure 7: Proportion of farming HHs affected by the various constrains in the year 2017<br>.....                                       | 36 |
| Figure 8: Dzongkhag wise estimated number of days and nights spent in guarding the<br>crops from wild animal's damages .....           | 44 |
| Figure 9 : Dzongkhag wise paddy production in 2017 .....   | 47 |
| Figure 10: Dzongkhag wise maize production in 2017 .....   | 49 |
| Figure 11: Dzongkhag wise other cereals production in 2017 .....   | 53 |
| Figure 12: Dzongkhag wise potato production in 2017.....   | 56 |
| Figure 13: Dzongkhag wise cardamom production in 2017.....   | 77 |
| Figure 14: Dzongkhag wise apple production in 2017 .....   | 87 |
| Figure 15: Dzongkhag wise Citrus production in 2017.....   | 89 |

**PART 1**  
**METHODOLOGY**

## **1. Introduction**

The annual agriculture sample survey was initiated in 2004. Since then, the annual publication endeavours to present comprehensive information on area, production and yield of principle crops viz: cereals, oil seeds, pulses and spices, vegetables, fruit crops, roots & tubers and other horticultural crops. The publication comprises of two parts, Part 1 at National level statistics, which includes national level crop and fruit production data with other analysis like price and income, crop and fruit utilization, food security and coping mechanism data etc. Part 2 comprises of Dzongkhag level crop and fruit production statistics. A single survey was conducted from December 2017 to February 2018 to collect the above mention list of indicators related to agriculture sector for the year 2017, unlike the previous year where it was conducted biannually. The shift from bi-annual to annual sample survey was considered after the feedbacks and comments received from the field staff. This is the first ever agriculture sample survey conducted by the survey section under the Statistics Division (RSD), Directorate Services, MoAF with the support from district and field staffs of the Department of Agriculture.

## **2. Objectives**

The objectives of the survey are:

- The immediate objective is to generate data needed for preparation of the plans, programs and to assess the achievements.
- To establish reliable information on crop production and land use for planning and monitoring of agriculture development programmes.
- To collect information on indicators like annual crop production, yield and agricultural engaged area, fruit crop production and trees estimates etc...
- Prepare time series data of land use and agriculture production trend.

### 3. Sampling Frame

The Household (HH) listing is done by the Gewog (sub district) agriculture extension officers. The Gewog agriculture extension officer annually submits the updated Household listing to the Dzongkhag. Then, the Dzongkhag validates and submit complied HHs list to the Department.

For 2017 annual agriculture sample survey the 2015 and 2014 household listings were used as a frame and only for few sub district / gewogs the house hold lists were updated as per the need. The household list frame used for the sample survey was also validated through the agriculture sector frame items collected in the latest Population and Housing Census for Bhutan (PHCB).

#### Format for the annual agriculture sample survey HHs listing

| Sl.No | Name of head of the HHs | Village   | H.no    | T. no | Land cultivated/ not cultivated | If Cultivated |       | Land left fallow |       | Land leased out |     | Land leased in |     |
|-------|-------------------------|-----------|---------|-------|---------------------------------|---------------|-------|------------------|-------|-----------------|-----|----------------|-----|
|       |                         |           |         |       |                                 | WLC           | DLC   | WLF              | DLF   | WLO             | DLO | WLI            | DLI |
| 1     | Pema                    | Ben-zibee | Ka-3-42 | 198   | LC                              |               | 11.37 |                  | 4.63  |                 |     |                |     |
| 2     | Jangchub                | Ben-zibee | KA-3-39 | 106   | LC                              |               | 8.76  |                  | 10.59 |                 |     |                |     |
| 3     | Dolkar                  | Ben-zibee | KA-3-41 | 231   | NC                              |               |       | 3.7              |       | 1.5             |     |                |     |
| 4     | Sangay                  | Ben-zibee | KA-3-40 | 199   | LC                              |               | 14.87 |                  | 7.93  |                 |     |                |     |

With the information collected using the above mentioned HHs listing format for the sample survey, the HHs which are engaged only in agriculture activities i.e. LC HHs (Land cultivating HHs) were only included and NC HHs (Land not cultivating HHs/ empty HHs / Gungtongs) were excluded from the list in order to reduce the non-response / empty questionnaires.

The agriculture land utilized area information collected with the above list was used as indicator/auxiliary information to come up with an appropriate sample size for the survey.

#### 4. Survey Design

##### *Questionnaire*

The 2017 agriculture sample survey questionnaire is an improved version of 2016. A major reform was made to the questionnaire after close consultation with the relevant stake holders and field staff. The changes are under demography with additional questions to capture data related to education level and occupation. Under the land utilization, new questions were added to capture information related to land under irrigation by land types. A new chapter on input use was also included.

##### *Sample size*

Given that geographical distribution of crops in Bhutan is based on the different ecological and climatic zones; it is not feasible to produce precise survey results for all crops in each gewog/sub district level. This is because agriculture has many indicators to be estimated like annual crop production, yield, crop area and fruit trees etc... Thus, it was difficult to come up with an optimum sample size which could give precise and unbiased efficient estimates. Also, the farmers in Bhutan practice conventional mix farming system with small land holdings.

For 2017 annual sample survey the 2014 sample size formulae was adopted and improved using additional information gathered in previous survey, using the information collected on agriculture utilized areas of farming households at Gewog (sub district) level as an indicator for sample size calculation. Additionally, the sample size was also adjusted at the gewog level domain using the variation of number of various crops grown within a gewog.

The formulae given below were used for sample size calculation

$$\text{The initial sample size } n_0 = \left( \frac{Z * 100 * CV \text{ area}}{P} \right)^2$$



Here,

$n_0$  = is the initial sample size

$Z$  = is the statistic that defines the level of confidence desired, at 95 Confidence Interval the value of  $z = 1.96$

$C.V$  = non percentage  $C.V$  (coefficient of variation) of the agriculture utilized area was taken for this survey.

Non percentage  $C.V$  =  $SD \text{ area} / \bar{x} \text{ area}$

$P$  = the value of population proportion “ $p$ ” or Margin of error is set at 15 ie. 0.15 at gewog level.

The final sample size is given by,

Using Population correction factor we have:

$$n = \frac{n_0}{(1 + (n_0/N))}$$

Where,  $N$  = Population size / total farming Households.

With the above described formulae, the sample size at gewog level was determined for all the 205 gewogs in 20 Dzongkhags.

### ***Sampling design***

The annual agriculture surveys attempt to collect data on more than 60 indicators related to cereal crops, horticulture crops, oil seeds, spices, vegetables and others. A greater effort is also made using the same survey to generate statistics on crop utilization, farm gate price and income, loss in area and production due to crop damage by both the natural and non-natural calamities and also coping mechanisms. The estimates are expected to be reliable with greater accuracy at Dzongkhag level and also to some extent at the Gewog level. The existing survey design has good scope to provide reliable estimates at the District/ Dzongkhag level.

A **stratified uni-stage sampling design** was adopted where the farming households within the Gewogs are selected using **circular systematic selection** approach. All the 20 Districts and 205 Gewogs/ sub Districts were completely enumerated.

## **5. Data Collection, processing & analysis**

For 2017 Agriculture sample survey the data collection was carried out from 20th December 2017 to February 2019. The agriculture data was collected for the calendar year 2017.

The survey section under RNR statistics division coordinated and monitored the overall data collection activity. For this survey the assistant district agriculture officers (ADAOs) who serve as the data manager were used as a supervisor and field agriculture extension officers as an enumerator. The whole country was divided into four regions east, west, centre and south. For timely data collection and to speed up the whole process three teams were formed at the RSD. These teams visited and trained district agriculture sector officials of the west, centre and southern region on use of questionnaire for data collection and other data collection modality. For eastern region a one-day training of trainers (ToT) were provided for six gewog agriculture extension officers that were attached for internship with the department of agriculture, head office, Thimphu. These six gewog agriculture extension officers in return trained personals within their respective Dzongkhags on data collection.

The sample survey data collected was entered and processed using a database developed in CSPRO 7 version software. The database was developed by the officials of RNR statistics division. In the process of briefing district and field people on data collection modality using the agriculture sample survey questionnaire, they were also trained on use of CSPRO database for data entry, cleaning and processing.

The data entry and processing was carried out at the Gewogs and Dzongkhags by the Dzongkhag Agriculture Sector Officials in the month of March 2018. The survey section under RSD compiled the raw data from 20 districts and 205 gewogs. In the month of April, a thorough data cleaning was carried out by the survey section. The cleaned data were merged and made ready for analysis and tabulation.

The data analysis and report writing was conducted in the month of May 2018 by the survey section using STATA 15 original version. The weight estimation procedure was used to represent the estimates of population from the sample survey. Therefore, it is necessary to multiply the data by a sampling weight, or expansion factor. The basic weight for each sample household would be equal to the inverse of its probability of selection. The sample design for the agriculture survey 2017 was a self-weighting within stratum, meaning that all the sampled or the enumerated households within a gewog will have the same weight.

***Adjustment for non-response/ Non-response Weight***

In order to adjust for the loss of representativeness caused by non-responding households, the weight of the responding units (***Wt\_Eh***) was increased by deploying the following formulae. It is the reciprocal/inverse of the percentage responding units from the sample.

$$Non\ response\ Weight / W_{nr} = \frac{1}{Eh / Sh} \quad \rightarrow \quad \boxed{\frac{Sh}{Eh}}$$

Where: *Sh* = Sampled households in the gewog  
*Eh* = Enumerated households in the gewog

***Design Weight / Weighting for probability of sample selection***

The design weight or base weight is the inverse of probability of selection of the sample.

Based on the Circular systematic sampling design, the probability of selection for the sample households in a gewog was calculated as follows:

$$\text{Design weight/Base weight/ } Wd = K \quad \rightarrow \quad \boxed{\frac{N_h}{S_h}}$$

Where:  $N_h$  = Total households in the gewog  
 $S_h$  = Sampled households in the gewog

Therefore the final weight becomes /  $FW = Wd \times W_{nr}$   
 (Or)

The Final WEIGHT = Design Weight  $\times$  Non response Weight

Finally, the estimation for observed values in the Gewogs has been obtained by multiplying each sample data with the final weight (FW) calculated for each Gewog.

Therefore, the estimate of a *total value* (such as total production) is the product of the final weight, FW and the value,  $y_i$ , for each responding unit, summed over all responding units:

$$\hat{Y} = \sum_{i=1}^n FW \times y_i$$

## 6. Survey Coverage and Scope

From the new updated total rural farming households (area list frame gathered from gewog extension centres) of 60,646, at least 15,396 (25 on an average) were selected for the enumeration in this survey. The coverage was 15,064 (98%) of the total sampled households of 15,396. The non-response or the absentees stood at 2% (332) of the farming households selected for the survey. With the updated

household list used for 2017 sample survey the non-response rate has reduced to 2% as compare to 5% in 2016.

**Table 1: Coverage of Rural households by the survey 2017**

| Dzongkhag       | Total HHs (Sample frame) Nh | Sample HHs/Sh | Percent Sampled | Enumerated HHs (Eh) | Percentage Coverage |
|-----------------|-----------------------------|---------------|-----------------|---------------------|---------------------|
| Bumthang        | 1,151                       | 308           | 27              | 308                 | 100                 |
| Chhukha         | 2,889                       | 788           | 27              | 768                 | 97                  |
| Dagana          | 4,461                       | 1,081         | 24              | 1,017               | 94                  |
| Gasa            | 487                         | 174           | 36              | 174                 | 100                 |
| Haa             | 1,300                       | 475           | 37              | 469                 | 99                  |
| Lhuentse        | 2,332                       | 641           | 27              | 631                 | 98                  |
| Mongar          | 5,363                       | 1,323         | 25              | 1,291               | 98                  |
| Paro            | 2,886                       | 760           | 26              | 724                 | 95                  |
| Pemagathsel     | 2,934                       | 727           | 25              | 647                 | 89                  |
| Punakha         | 3,094                       | 834           | 27              | 810                 | 97                  |
| Samdrupjongkhar | 3,844                       | 771           | 20              | 771                 | 100                 |
| Samtse          | 5,867                       | 1,191         | 20              | 1,188               | 100                 |
| Sarpang         | 3,592                       | 867           | 24              | 849                 | 98                  |
| Thimphu         | 967                         | 414           | 43              | 395                 | 95                  |
| Trashigang      | 6,984                       | 1,300         | 19              | 1,297               | 100                 |
| Trashiyangtse   | 2,554                       | 589           | 23              | 587                 | 100                 |
| Trongsa         | 1,705                       | 386           | 23              | 387                 | 100                 |
| Tsirang         | 2,813                       | 916           | 33              | 928                 | 101                 |
| Wangdue         | 3,546                       | 1,198         | 34              | 1,179               | 98                  |
| Zhemgang        | 1,877                       | 653           | 35              | 644                 | 99                  |
| <b>Total</b>    | <b>60,646</b>               | <b>15,396</b> | <b>25</b>       | <b>15,064</b>       | <b>98</b>           |

**PART 2**  
**NATIONAL LEVEL STATISTICS**

## 7. Demographic Characteristics

Table 2: Farming household member residing on farm in 2017

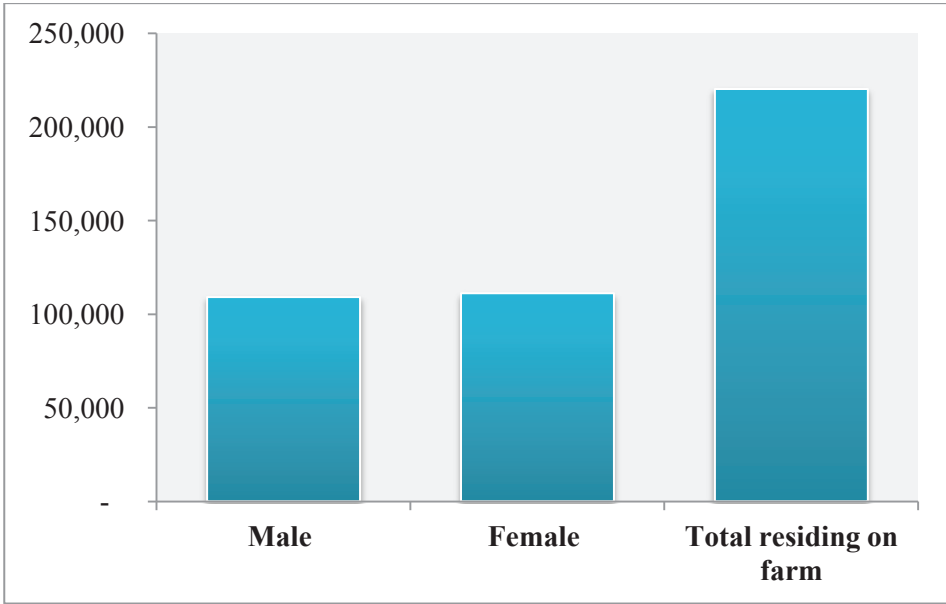
| Dzongkhag  | Average re-<br>sponding age | Responding sex in % |        | 0-5 years |        | 6-14 years |        | 15 -64 years |        | Above 65 years |        |
|------------|-----------------------------|---------------------|--------|-----------|--------|------------|--------|--------------|--------|----------------|--------|
|            |                             | Male                | Female | Male      | Female | Male       | Female | Male         | Female | Male           | Female |
| Bumthang   | 44                          | 21                  | 79     | 197       | 169    | 401        | 338    | 1,282        | 1,630  | 288            | 361    |
| Chhukha    | 47                          | 60                  | 40     | 250       | 255    | 734        | 601    | 4,008        | 4,285  | 629            | 605    |
| Dagana     | 45                          | 59                  | 41     | 419       | 371    | 1,198      | 1,069  | 5,740        | 5,767  | 752            | 595    |
| Gasa       | 47                          | 56                  | 44     | 30        | 38     | 78         | 68     | 556          | 705    | 55             | 63     |
| Haa        | 47                          | 46                  | 54     | 143       | 119    | 231        | 198    | 1,426        | 1,632  | 262            | 265    |
| Lhuentse   | 50                          | 34                  | 66     | 442       | 313    | 906        | 772    | 2,598        | 3,062  | 552            | 631    |
| Mongar     | 43                          | 38                  | 62     | 888       | 867    | 1,856      | 1,700  | 6,368        | 7,658  | 1,146          | 953    |
| Paro       | 50                          | 39                  | 61     | 244       | 295    | 756        | 651    | 3,370        | 4,107  | 859            | 844    |
| P/gatshel  | 50                          | 55                  | 45     | 225       | 211    | 480        | 632    | 2,892        | 3,207  | 765            | 656    |
| Punakha    | 48                          | 31                  | 69     | 381       | 250    | 990        | 791    | 3,559        | 4,170  | 689            | 660    |
| S/jongkhar | 47                          | 66                  | 34     | 381       | 342    | 900        | 837    | 4,355        | 4,596  | 720            | 542    |
| Samtse     | 49                          | 76                  | 24     | 561       | 536    | 1,587      | 1,376  | 8,830        | 8,235  | 1,555          | 1,128  |
| Sarpang    | 47                          | 59                  | 41     | 376       | 277    | 1,071      | 775    | 4,370        | 4,444  | 993            | 654    |
| Thimphu    | 48                          | 39                  | 61     | 84        | 78     | 196        | 235    | 1,200        | 1,479  | 310            | 198    |
| Trashigang | 49                          | 55                  | 45     | 670       | 551    | 1,749      | 1,338  | 7,060        | 8,043  | 1,393          | 942    |
| T/yangtse  | 47                          | 49                  | 51     | 233       | 224    | 548        | 588    | 2,593        | 3,011  | 470            | 404    |

| Dzongkhag     | Average re-<br>sponding age | Responding sex in % |           | 0-5 years    |              | 6-14 years    |               | 15 -64 years  |               | Above 65 years |               |
|---------------|-----------------------------|---------------------|-----------|--------------|--------------|---------------|---------------|---------------|---------------|----------------|---------------|
|               |                             | Male                | Female    | Male         | Female       | Male          | Female        | Male          | Female        | Male           | Female        |
| Trongsa       | 42                          | 32                  | 68        | 97           | 81           | 570           | 492           | 2,265         | 2,839         | 397            | 309           |
| Tsirang       | 50                          | 69                  | 31        | 241          | 176          | 648           | 511           | 3,746         | 3,417         | 660            | 438           |
| Wangdue       | 45                          | 37                  | 63        | 533          | 483          | 1,004         | 829           | 4,152         | 5,235         | 869            | 913           |
| Zhemgang      | 46                          | 51                  | 49        | 256          | 144          | 157           | 146           | 2,144         | 2,345         | 525            | 401           |
| <b>Bhutan</b> | <b>47</b>                   | <b>49</b>           | <b>51</b> | <b>6,651</b> | <b>5,780</b> | <b>16,059</b> | <b>13,947</b> | <b>72,516</b> | <b>79,866</b> | <b>13,889</b>  | <b>11,563</b> |

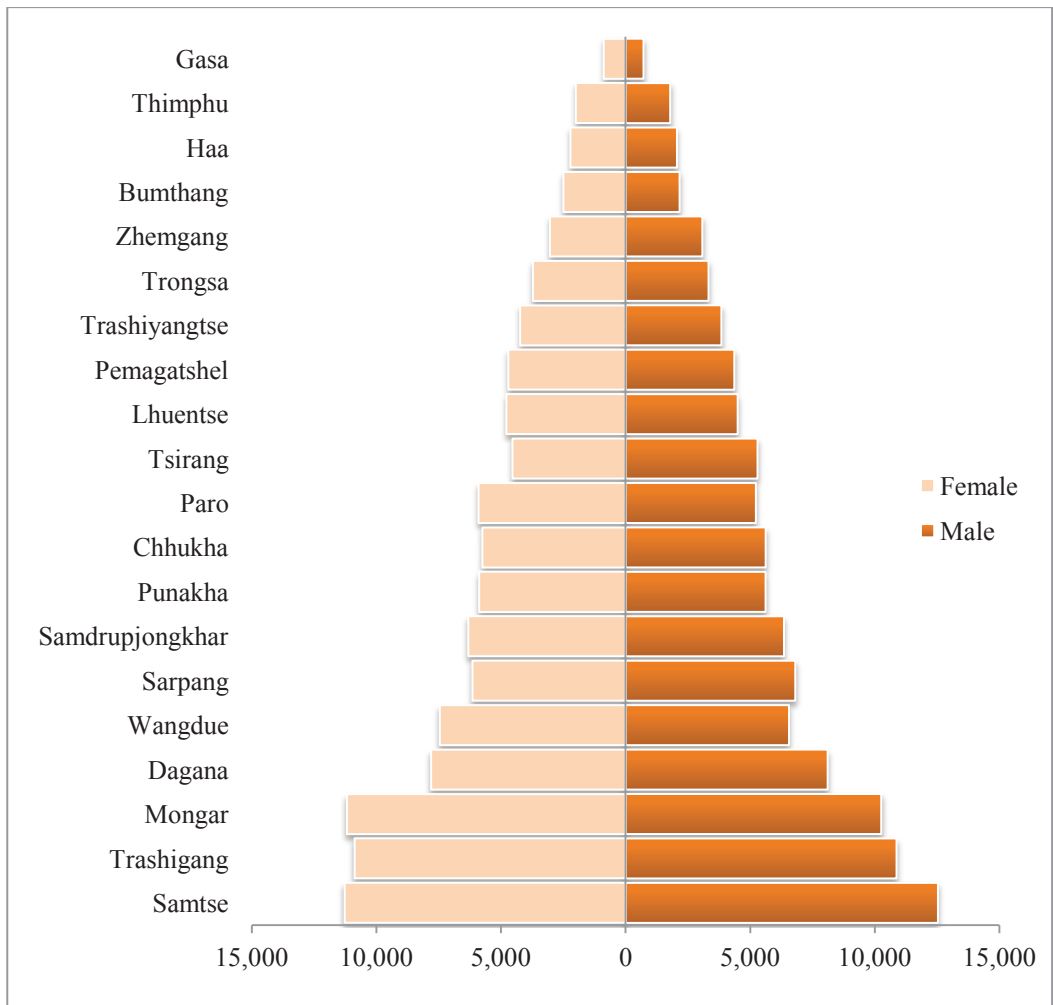


**Table 3: Dzongkhag wise estimated total population residing on farm by sex in 2017**

| <b>Dzongkhag</b> | <b>Male Total</b> | <b>Female Total</b> | <b>Population Total</b> |
|------------------|-------------------|---------------------|-------------------------|
| Bumthang         | 2,168             | 2,498               | 4,665                   |
| Chhukha          | 5,621             | 5,746               | 11,368                  |
| Dagana           | 8,109             | 7,802               | 15,911                  |
| Gasa             | 719               | 873                 | 1,592                   |
| Haa              | 2,062             | 2,215               | 4,277                   |
| Lhuentse         | 4,498             | 4,778               | 9,276                   |
| Mongar           | 10,258            | 11,178              | 21,436                  |
| Paro             | 5,229             | 5,897               | 11,126                  |
| Pemagatshel      | 4,363             | 4,706               | 9,069                   |
| Punakha          | 5,618             | 5,872               | 11,489                  |
| Samdrupjongkhar  | 6,356             | 6,317               | 12,673                  |
| Samtse           | 12,534            | 11,275              | 23,810                  |
| Sarpang          | 6,809             | 6,150               | 12,960                  |
| Thimphu          | 1,790             | 1,990               | 3,780                   |
| Trashigang       | 10,873            | 10,874              | 21,747                  |
| Trashiyangtse    | 3,844             | 4,227               | 8,071                   |
| Trongsa          | 3,329             | 3,721               | 7,050                   |
| Tsirang          | 5,295             | 4,542               | 9,837                   |
| Wangdue          | 6,558             | 7,460               | 14,017                  |
| Zhemgang         | 3,081             | 3,036               | 6,117                   |
| <b>Total</b>     | <b>109,115</b>    | <b>111,156</b>      | <b>220,271</b>          |



*Figure 1: Total population residing on farm by sex, 2017*



*Figure 2: Dzongkhag wise population residing on farm pyramid by sex, 2017*

**Table 4: Proportion of the household members presently living and eating together in the farm households by education level**

| Dzongkhag     | Never Attended School | Class PP to 6 | Class 7 - 10 | Class 11 - 12 | Bachelor's Degree | Masters/PhD Degree | Monastic education |
|---------------|-----------------------|---------------|--------------|---------------|-------------------|--------------------|--------------------|
| Bumthang      | 60                    | 18            | 14           | 5             | 2                 | 0                  | 1                  |
| Chhukha       | 64                    | 19            | 13           | 3             | 1                 | 0                  | 1                  |
| Dagana        | 62                    | 21            | 12           | 3             | 1                 | 0                  | 1                  |
| Gasa          | 69                    | 19            | 8            | 1             | 0                 | 0                  | 2                  |
| Haa           | 55                    | 21            | 13           | 4             | 1                 | 0                  | 7                  |
| Lhuentse      | 65                    | 19            | 10           | 3             | 1                 | 0                  | 1                  |
| Mongar        | 66                    | 18            | 10           | 3             | 0                 | 0                  | 3                  |
| Paro          | 52                    | 18            | 15           | 8             | 4                 | 0                  | 3                  |
| P/gatshel     | 67                    | 15            | 10           | 4             | 0                 | 0                  | 3                  |
| Punakha       | 62                    | 18            | 11           | 4             | 1                 | 0                  | 2                  |
| S/jongkhar    | 67                    | 15            | 11           | 2             | 0                 | 0                  | 3                  |
| Samtse        | 61                    | 21            | 12           | 4             | 1                 | 0                  | 0                  |
| Sarpang       | 56                    | 23            | 14           | 4             | 1                 | 0                  | 1                  |
| Thimphu       | 51                    | 22            | 15           | 7             | 3                 | 0                  | 3                  |
| Trashigang    | 71                    | 17            | 7            | 2             | 0                 | 0                  | 2                  |
| Trashiyangtse | 65                    | 17            | 13           | 2             | 0                 | 0                  | 2                  |
| Trongsa       | 55                    | 19            | 14           | 6             | 2                 | 0                  | 3                  |
| Tsirang       | 63                    | 19            | 12           | 4             | 1                 | 0                  | 0                  |
| Wangdue       | 67                    | 20            | 7            | 2             | 1                 | 0                  | 3                  |
| Zhemgang      | 78                    | 9             | 6            | 2             | 0                 | 0                  | 4                  |
| <b>Total</b>  | <b>63</b>             | <b>18</b>     | <b>11</b>    | <b>4</b>      | <b>1</b>          | <b>0</b>           | <b>2</b>           |

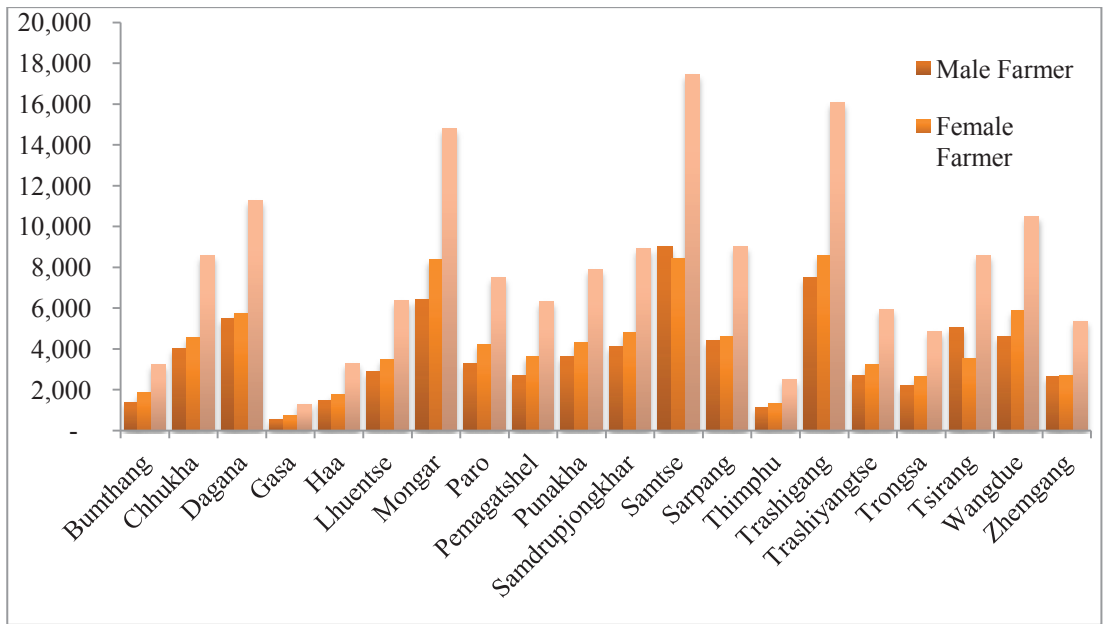
**Table 5: Proportion of the household members presently living and eating together in the farm households by Occupation**

| Dzongkhag     | Farmer    | Student   | Gom chen | Shop-keeper | Taxi driver | Others   |
|---------------|-----------|-----------|----------|-------------|-------------|----------|
| Bumthang      | 69        | 19        | 1        | 0           | 0           | 10       |
| Chhukha       | 77        | 17        | 0        | 0           | 0           | 5        |
| Dagana        | 72        | 20        | 1        | 1           | 0           | 6        |
| Gasa          | 82        | 13        | 0        | 1           | 0           | 3        |
| Haa           | 80        | 14        | 1        | 1           | 0           | 5        |
| Lhuentse      | 69        | 25        | 1        | 0           | 0           | 5        |
| Mongar        | 71        | 22        | 3        | 0           | 0           | 4        |
| Paro          | 68        | 18        | 1        | 1           | 1           | 10       |
| P/gatshel     | 72        | 17        | 4        | 1           | 0           | 6        |
| Punakha       | 70        | 22        | 0        | 0           | 0           | 7        |
| S/jongkhar    | 71        | 18        | 4        | 1           | 0           | 5        |
| Samtse        | 75        | 18        | 0        | 1           | 0           | 6        |
| Sarpang       | 71        | 20        | 1        | 1           | 1           | 7        |
| Thimphu       | 65        | 18        | 1        | 1           | 0           | 15       |
| Trashigang    | 75        | 17        | 3        | 0           | 0           | 4        |
| Trashiyangtse | 77        | 16        | 2        | 1           | 0           | 4        |
| Trongsa       | 69        | 25        | 1        | 0           | 0           | 4        |
| Tsirang       | 79        | 15        | 0        | 1           | 1           | 5        |
| Wangdue       | 75        | 15        | 1        | 1           | 0           | 9        |
| Zhemgang      | 88        | 5         | 1        | 1           | 0           | 5        |
| <b>Total</b>  | <b>74</b> | <b>18</b> | <b>1</b> | <b>1</b>    | <b>0</b>    | <b>6</b> |

## 8. Population of Farmers

**Table 6: Farmers Population in 2017 by sex**

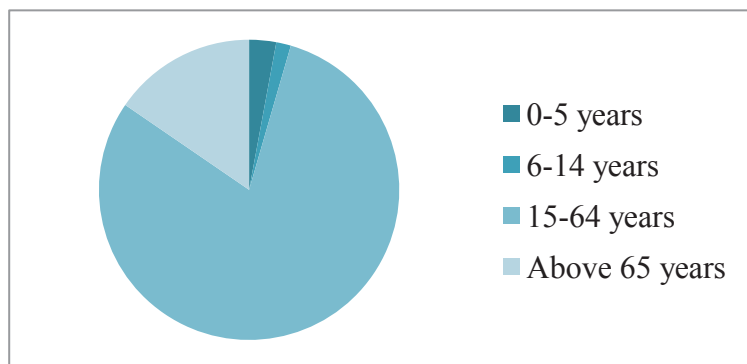
| <b>Dzongkhag</b> | <b>Male</b>   | <b>Female</b> | <b>Total Farmer</b> |
|------------------|---------------|---------------|---------------------|
| Bumthang         | 1,386         | 1,855         | 3,241               |
| Chhukha          | 4,024         | 4,539         | 8,564               |
| Dagana           | 5,495         | 5,754         | 11,248              |
| Gasa             | 552           | 741           | 1,292               |
| Haa              | 1,489         | 1,771         | 3,261               |
| Lhuentse         | 2,873         | 3,492         | 6,365               |
| Mongar           | 6,425         | 8,385         | 14,810              |
| Paro             | 3,273         | 4,221         | 7,494               |
| Pemagatshel      | 2,697         | 3,616         | 6,313               |
| Punakha          | 3,601         | 4,288         | 7,890               |
| Samdrupjongkhar  | 4,123         | 4,790         | 8,913               |
| Samtse           | 9,015         | 8,444         | 17,458              |
| Sarpang          | 4,388         | 4,614         | 9,001               |
| Thimphu          | 1,141         | 1,332         | 2,473               |
| Trashigang       | 7,473         | 8,595         | 16,068              |
| Trashiyangtse    | 2,690         | 3,225         | 5,915               |
| Trongsa          | 2,197         | 2,659         | 4,856               |
| Tsirang          | 5,042         | 3,524         | 8,566               |
| Wangdue          | 4,591         | 5,877         | 10,467              |
| Zhemgang         | 2,637         | 2,716         | 5,353               |
| <b>Total</b>     | <b>75,111</b> | <b>84,437</b> | <b>159,548</b>      |



**Figure 3 : Population of farmers in 2017 by sex**

**Table 7: Farmers Population in 2017 by age interval**

| Dzongkhag       | 0-5 years    | 6-14 years   | 15-64 years    | Above 65 years |
|-----------------|--------------|--------------|----------------|----------------|
| Bumthang        | 22           | 24           | 2,566          | 629            |
| Chhukha         | 243          | 87           | 7,021          | 1,213          |
| Dagana          | 298          | 195          | 9,430          | 1,326          |
| Gasa            | 26           | 41           | 1,109          | 116            |
| Haa             | 6            | 23           | 2,716          | 516            |
| Lhuentse        | 434          | 125          | 4,662          | 1,143          |
| Mongar          | 830          | 362          | 11,652         | 1,966          |
| Paro            | 116          | 87           | 5,716          | 1,575          |
| Pemagatshel     | 135          | 82           | 4,757          | 1,338          |
| Punakha         | 167          | 136          | 6,261          | 1,326          |
| Samdrupjongkhar | 243          | 156          | 7,355          | 1,159          |
| Samtse          | 420          | 274          | 14,107         | 2,657          |
| Sarpang         | 269          | 107          | 7,028          | 1,597          |
| Thimphu         | 10           | 16           | 1,971          | 476            |
| Trashigang      | 547          | 301          | 13,043         | 2,177          |
| Trashiyangtse   | 166          | 100          | 4,792          | 857            |
| Trongsa         | 75           | 53           | 4,032          | 697            |
| Tsirang         | 202          | 113          | 7,029          | 1,221          |
| Wangdue         | 239          | 179          | 8,292          | 1,756          |
| Zhemgang        | 191          | 55           | 4,223          | 884            |
| <b>Total</b>    | <b>4,639</b> | <b>2,517</b> | <b>127,762</b> | <b>24,630</b>  |

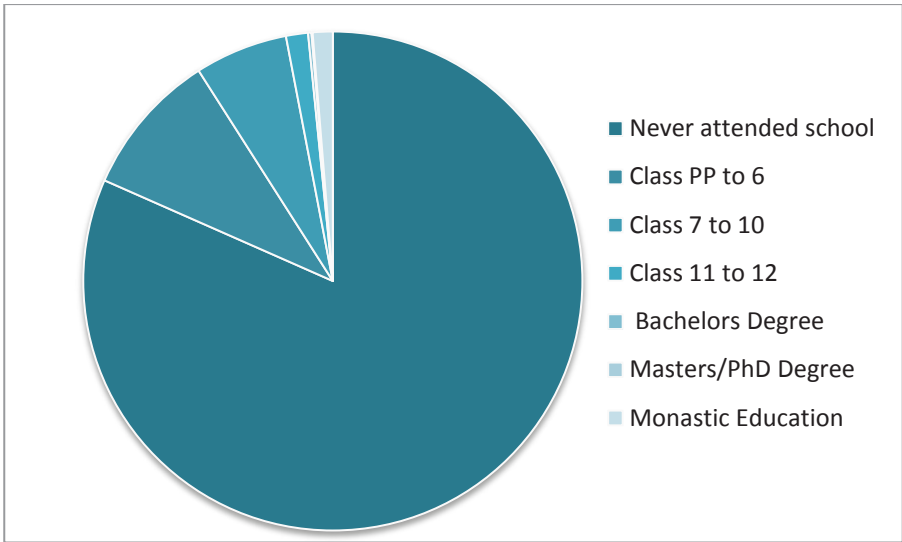


**Figure 4: Population of farmers in 2017 by age interval**



**Table 8: Farmers Population in 2017 by education level attended**

| Dzongkhag    | Never attended school | Class PP to 6 | Class 7 to 10 | Class 11 to 12 | Bachelor's Degree | Masters/ PhD Degree | Monastic Education |
|--------------|-----------------------|---------------|---------------|----------------|-------------------|---------------------|--------------------|
| Bumthang     | 2,371                 | 296           | 384           | 129            | 8                 |                     | 53                 |
| Chhukha      | 6,878                 | 759           | 747           | 100            | 14                | 8                   | 58                 |
| Dagana       | 9,186                 | 1,194         | 661           | 129            | 18                | 10                  | 50                 |
| Gasa         | 1,043                 | 166           | 55            | 3              |                   |                     | 25                 |
| Haa          | 2,073                 | 488           | 357           | 90             | 17                |                     | 235                |
| Lhuentse     | 5,615                 | 332           | 286           | 83             | 2                 |                     | 47                 |
| Mongar       | 13,107                | 897           | 578           | 111            | 13                | 10                  | 95                 |
| Paro         | 5,234                 | 894           | 780           | 340            | 82                | 5                   | 159                |
| P/gatshel    | 5,529                 | 384           | 233           | 57             | 13                |                     | 96                 |
| Punakha      | 6,526                 | 647           | 427           | 86             | 8                 | 3                   | 193                |
| Sjongkhar    | 7,837                 | 536           | 427           | 36             | 16                | 15                  | 45                 |
| Samtse       | 13,670                | 2,214         | 1,249         | 228            | 42                | 30                  | 25                 |
| Sarpang      | 6,642                 | 1,312         | 757           | 218            | 24                | 5                   | 43                 |
| Thimphu      | 1,709                 | 434           | 200           | 64             | 8                 | 2                   | 56                 |
| T/gang       | 14,228                | 1,106         | 434           | 149            |                   |                     | 151                |
| T/yangtse    | 4,968                 | 408           | 410           | 40             |                   | 4                   | 85                 |
| Trongsa      | 3,754                 | 552           | 279           | 108            | 29                | 17                  | 118                |
| Tsirang      | 6,898                 | 872           | 601           | 116            | 34                | 3                   | 42                 |
| Wangdue      | 8,363                 | 1,220         | 455           | 121            | 18                |                     | 290                |
| Zhemgang     | 4,573                 | 215           | 287           | 69             | 6                 | 3                   | 200                |
| <b>Total</b> | <b>130,205</b>        | <b>14,927</b> | <b>9,608</b>  | <b>2,275</b>   | <b>352</b>        | <b>115</b>          | <b>2,066</b>       |



*Figure 5: Population of farmers in 2017 by education level attended*

## 9. Land Utilization 2017

### *Dry land*

The survey estimated that in 2017, the total operational was 145,838 acres. The operational dryland holding is defined as:

*Operational land holdings = Kamzhing own land cultivated + Kamzhing fallow + Kamzhing leased in.*

Since, only the farming households which are engaged in agriculture activities are included in the agriculture sample survey 2017 excluding the Gungtong (empty HHs) and HHs having land but not engaged in agriculture activities, the Kamzhing/Dry land left fallow could be much higher than the estimated figure below.

A total of **46,704 acres** were estimated to have left fallow.

**Table 9: Dryland utilization by farming households in 2017 (acres)**

| Dzongkhag  | Own Land | Leased in | Irrigated | left fallow | Total Operational holdings |
|------------|----------|-----------|-----------|-------------|----------------------------|
| Bumthang   | 1,956    | 211       | 226       | 4,593       | 6,760                      |
| Chhukha    | 9,652    | 212       | 618       | 707         | 10,570                     |
| Dagana     | 10,594   | 182       | 2,348     | 1,228       | 12,003                     |
| Gasa       | 460      | 16        | -         | 64          | 540                        |
| Haa        | 2,631    | 49        | 528       | 826         | 3,506                      |
| Lhuentse   | 2,989    | 89        | 197       | 2,703       | 5,781                      |
| Mongar     | 7,651    | 252       | 738       | 5,219       | 13,123                     |
| Paro       | 4,164    | 145       | 1,070     | 595         | 4,903                      |
| P/gatshel  | 5,522    | 95        | 567       | 6,444       | 12,061                     |
| Punakha    | 1,013    | 21        | 153       | 428         | 1,461                      |
| S/jongkhar | 6,764    | 113       | -         | 2,971       | 9,848                      |
| Samtse     | 13,718   | 412       | 601       | 2,525       | 16,655                     |
| Sarpang    | 7,180    | 214       | 565       | 1,141       | 8,535                      |
| Thimphu    | 897      | 119       | 781       | 113         | 1,130                      |
| Trashigang | 4,588    | 313       | 563       | 7,039       | 11,940                     |

| Dzongkhag     | Own Land      | Leased in    | Irrigated     | left fallow   | Total Operational holdings |
|---------------|---------------|--------------|---------------|---------------|----------------------------|
| Trashiyangtse | 1,902         | 92           | 400           | 2,555         | 4,549                      |
| Trongsa       | 1,191         | 125          | 558           | 2,477         | 3,793                      |
| Tsirang       | 5,611         | 161          | 1,296         | 661           | 6,434                      |
| Wangdue       | 3,257         | 327          | 860           | 879           | 4,463                      |
| Zhemgang      | 4,244         | 2            | 18            | 3,535         | 7,780                      |
| <b>Total</b>  | <b>95,983</b> | <b>3,151</b> | <b>12,089</b> | <b>46,704</b> | <b>145,838</b>             |

### *Wetland*

The wetland left fallow could be much higher than the one estimated below as the survey excludes the gungtong (empty hhs), also households which are residing at their place but not engaged in any agriculture activities, thus, keeping their lands fallow during the survey period. The gungtongs and those households not engaged in agriculture activities are excluded to minimize the effect over the estimates due to the occurrence of non-response by default.

The total wetland harvested area includes the wetland leased in by farming households.

**Table 10: Wetland utilization in 2017 by farming households (acres)**

| Dzongkhag | Harvested (inclusive of leased in) | Leased in | Irrigated | Fallow | Total Operational holdings |
|-----------|------------------------------------|-----------|-----------|--------|----------------------------|
| Bumthang  | 160                                | 5         | 18        | 6      | 166                        |
| Chhukha   | 2,333                              | 51        | 1,139     | 128    | 2,461                      |
| Dagana    | 3,906                              | 224       | 2,782     | 485    | 4,392                      |
| Gasa      | 137                                | 10        | 66        | 33     | 170                        |
| Haa       | 179                                | -         | 170       | 89     | 268                        |
| Lhuentse  | 2,173                              | 236       | 1,288     | 470    | 2,643                      |
| Mongar    | 1,076                              | 84        | 436       | 385    | 1,462                      |
| Paro      | 3,459                              | 712       | 3,209     | 211    | 3,670                      |
| P/gatshel | 28                                 | 6         |           | 189    | 217                        |
| Punakha   | 7,339                              | 1,490     | 4,965     | 390    | 7,730                      |

| Dzongkhag     | Harvested<br>(inclusive of<br>leased in) | Leased in    | Irrigated     | Fallow       | Total Opera-<br>tional holdings |
|---------------|--|--------------|---------------|--------------|---------------------------------|
| S/jongkhar    | 2,368                                    | 335          | 1,827         | 99           | 2,467                           |
| Samtse        | 6,104                                    | 731          | 1,633         | 1,024        | 7,127                           |
| Sarpang       | 4,255                                    | 517          | 2,218         | 867          | 5,122                           |
| Thimphu       | 592                                      | 29           | 240           | 17           | 609                             |
| Trashigang    | 3,671                                    | 285          | 929           | 533          | 4,204                           |
| T/yangtse     | 2,301                                    | 159          | 1,321         | 910          | 3,211                           |
| Trongsa       | 1,738                                    | 395          | 1,228         | 384          | 2,121                           |
| Tsirang       | 3,265                                    | 222          | 2,035         | 538          | 3,803                           |
| Wangdue       | 5,070                                    | 787          | 3,779         | 605          | 5,675                           |
| Zhemgang      | 1,214                                    | 9            | 411           | 455          | 1,669                           |
| <b>Bhutan</b> | <b>51,368</b>                            | <b>6,288</b> | <b>29,694</b> | <b>7,820</b> | <b>59,188</b>                   |

## 10. Crop Production

Table 11: Cereal, Oilseeds, Spices, Legumes & Pulses and Roots/Tubers

| Crop Type        | Crop Name                         | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|------------------|-----------------------------------|------------------------|-----------------|-----------------|
| Cereal           | Paddy                             | 51,368                 | 86,385          | 1,682           |
|                  | Maize                             | 66,042                 | 94,052          | 1424.12         |
|                  | Wheat                             | 5,259                  | 3,833           | 729             |
|                  | Barley                            | 3,421                  | 2,005           | 586             |
|                  | Buckwheat                         | 5,817                  | 3,480           | 598             |
|                  | Millet                            | 3,623                  | 1,739           | 480             |
|                  | Amarantha                         | 43                     | 3               | 66              |
|                  | Quinoa                            | 70                     | 9               | 132             |
|                  | <b>Cereal Total</b>               | <b>135,643</b>         | <b>191,506</b>  |                 |
| Oil seeds        | Mustard                           | 2,697                  | 969             | 359             |
|                  | Groundnut                         | 437                    | 246             | 563             |
|                  | Soya bean                         | 867                    | 204             | 235             |
|                  | Sunflower                         | 23                     | 3               | 138             |
|                  | Pyrilla/ Naam                     | 249                    | 108             | 435             |
|                  | Niger                             | 37                     | 6               | 164             |
|                  | <b>Oil Seeds Total</b>            | <b>4,310</b>           | <b>1,536</b>    |                 |
| Spices           | Cardamom                          | 13,880                 | 2,245           | 162             |
|                  | Ginger                            | 3,809                  | 7,859           | 2,063           |
|                  | <b>Spices Total</b>               | <b>17,422</b>          | <b>10,104</b>   |                 |
| Legumes & Pulses | Rajma Bean                        | 2,236                  | 932             | 417             |
|                  | Mung Bean                         | 922                    | 298             | 323             |
|                  | <b>Legumes &amp; Pulses Total</b> | <b>3,158</b>           | <b>1,230</b>    |                 |
| Roots & Tubers   | Sweet Potato                      | 203                    | 80              | 394             |
|                  | Tapioca                           | 320                    | 306             | 959             |
|                  | <b>Roots &amp; Tubers Total</b>   | <b>522</b>             | <b>386</b>      |                 |

**Table 12:Vegetable and Potato Production in 2017**

| <b>Crop Name</b>       | <b>Harvested Area(Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------------|------------------------------|------------------------|------------------------|
| Asparagus              | 201                          | 79                     | 392                    |
| Chilli                 | 7,571                        | 13,606                 | 1,797                  |
| Cabbage                | 3,551                        | 10,562                 | 2,974                  |
| Cauliflower            | 1,604                        | 3,575                  | 2,229                  |
| Carrot                 | 529                          | 787                    | 1,487                  |
| Radish                 | 3,533                        | 6,307                  | 1,785                  |
| Turnip                 | 1,804                        | 13,051                 | 7,236                  |
| Beans                  | 3,739                        | 5,273                  | 1,410                  |
| Green Peas             | 1,003                        | 859                    | 856                    |
| Tomato                 | 320                          | 383                    | 1,198                  |
| Broccoli               | 1,056                        | 1,371                  | 1,298                  |
| Eggplant               | 751                          | 643                    | 857                    |
| Lady Finger            | 45                           | 26                     | 568                    |
| Green leaves           | 3,492                        | 4,153                  | 1,189                  |
| Onion Bulb             | 594                          | 489                    | 824                    |
| Garlic                 | 1,441                        | 708                    | 491                    |
| Tree Tomato            |                              | 404                    |                        |
| Cultivated Mushroom    |                              | 122                    |                        |
| Cucumber               |                              | 1,948                  |                        |
| Pumpkin                |                              | 3,171                  |                        |
| Squash                 |                              | 1,755                  |                        |
| Gourds                 |                              | 278                    |                        |
| <b>Vegetable Total</b> |                              | <b>69,549</b>          |                        |
| <b>Potato</b>          | <b>12,824</b>                | <b>57,223</b>          | <b>4,462</b>           |

## 11. Fruit Production

**Table 13: Fruits Production**

| Commodities        | Total Trees (No's) | Bearing Trees (No's) | Production (MT) | Yield (Kg/bearing tree) |
|--------------------|--------------------|----------------------|-----------------|-------------------------|
| Apple              | 321,928            | 258,215              | 8,039           | 31                      |
| Mandarin           | 1,539,076          | 864,608              | 28,017          | 32                      |
| Areca nut          | 1,678,321          | 895,579              | 9,342           | 10                      |
| Mango              | 38,311             | 17,273               | 530             | 31                      |
| Pear               | 35,141             | 24,423               | 1,510           | 62                      |
| Peach              | 32,472             | 25,865               | 1,124           | 43                      |
| Plum               | 11,735             | 9,571                | 482             | 50                      |
| Walnut             | 16,042             | 10,646               | 239             | 22                      |
| Jackfruit          | 4,297              | 3,088                | 528             | 171                     |
| Guava              | 44,694             | 36,189               | 1,084           | 30                      |
| Papaya             | 9,949              | 7,853                | 278             | 35                      |
| Pomegranate        | 6,019              | 4,500                | 74              | 16                      |
| Litchi             | 44,076             | 10,456               | 313             | 30                      |
| Persimmon          | 5,632              | 4,305                | 152             | 35                      |
| Banana             | 458,651            | 161,000              | 3,113           | 19                      |
| Date Plum (Gendum) | 1,177              | 1,128                | 23              | 20                      |
| Avacado            | 4,219              | 1,455                | 43              | 30                      |
| Apricot            | 1,502              | 360                  | 8               | 23                      |
| Passion Fruit      |                    |                      | 94              |                         |
| Pine Apple         |                    |                      | 72              |                         |
| <b>Total</b>       |                    |                      | <b>54,656</b>   |                         |



## 12. Crop Utilization for 2017

**Table 14: Utilization of Cereals, Spices, Legumes & Pulses, Oil seeds, Cucurbits and Roots & Tuber**

| Crop Type                  | Crop Name    | Quantity Sold(MT) | Mean Unit price (Nu/Kg) | Median Unit price (Nu/Kg) | Amount Earned (Million Nu) |
|----------------------------|--------------|-------------------|-------------------------|---------------------------|----------------------------|
| Cereals                    | Paddy        | 442               | 82                      | 63                        | 36.38                      |
|                            | Maize        | 1,124             | 20                      | 17                        | 22.48                      |
|                            | Wheat        | 34                | 61                      | 70                        | 2.06                       |
|                            | Buckwheat    | 48                | 49                      | 48                        | 2.37                       |
|                            | Barley       | 9                 | 53                      | 47                        | 0.45                       |
|                            | Quinoa       | 2                 | 125                     | 100                       | 0.3                        |
|                            | Millet       | 6                 | 38                      | 28                        | 0.23                       |
| Oil seeds                  | Mustard      | 60                | 29                      | 25                        | 1.74                       |
|                            | Sunflower    | 1                 | 200                     | 200                       | 0.14                       |
|                            | Soya bean    | 6                 | 54                      | 50                        | 0.31                       |
|                            | Groundnut    | 64                | 79                      | 80                        | 5.08                       |
| Pulses                     | Rajma Bean   | 146               | 86                      | 75                        | 12.62                      |
|                            | Mung Bean    | 63                | 94                      | 92                        | 5.95                       |
|                            | Gram         | 0.5               | 100                     | 100                       | 0.05                       |
| Spices                     | Garlic       | 136               | 95                      | 100                       | 12.9                       |
|                            | Ginger       | 3,970             | 44                      | 46                        | 175                        |
|                            | Pepper       | 3                 | 350                     | 300                       | 0.99                       |
|                            | Xaythoxyllum | 0.13              | 400                     | 400                       | 0.05                       |
|                            | Cardamom     | 1,932             | 634                     | 500                       | 1,224.06                   |
| Roots & Tubers             | Sweet Potato | 1                 | 39                      | 40                        | 0.03                       |
|                            | Collocacia   | 35                | 31                      | 25                        | 1.11                       |
| Cucurbits                  | Cucumber     | 345               | 44                      | 30                        | 15.29                      |
|                            | Pumpkin      | 139               | 19                      | 12                        | 2.6                        |
|                            | Squash       | 130               | 13                      | 10                        | 1.66                       |
|                            | Gourd        | 60                | 30                      | 23                        | 1.8                        |
| <b>Total Amount Earned</b> |              |                   |                         |                           | <b>1,526</b>               |

**Table 15: Utilization of Vegetables and Potato**

| Commodities                | Quantity Sold (MT) | Mean Unit Price (Nu/Kg) | Median Unit Price (Nu/Kg) | Amount Earned (Million Nu) |
|----------------------------|--------------------|-------------------------|---------------------------|----------------------------|
| Asparagus                  | 40                 | 156                     | 155                       | 6                          |
| Green Chilli               | 3,462              | 99                      | 84                        | 343                        |
| Cabbage                    | 2,582              | 22                      | 20                        | 57                         |
| Cauliflower                | 429                | 65                      | 50                        | 28                         |
| Carrot                     | 385                | 41                      | 40                        | 16                         |
| Radish                     | 1,131              | 21                      | 15                        | 24                         |
| Turnip                     | 5                  | 25                      | 20                        | 0.1                        |
| Beans                      | 955                | 53                      | 50                        | 51                         |
| Dallay Chilli              | 25                 | 221                     | 200                       | 6                          |
| Green Peas                 | 1                  | 46                      | 40                        | 0.1                        |
| Tomato                     | 59                 | 44                      | 40                        | 3                          |
| Potato                     | 28,400             | 25                      | 21                        | 710                        |
| Eggplant                   | 105                | 33                      | 30                        | 3                          |
| Green leaves               | 713                | 56                      | 50                        | 40                         |
| Broccoli                   | 270                | 56                      | 50                        | 15                         |
| Tree Tomato                | 25                 | 49                      | 50                        | 1                          |
| Onion                      | 32                 | 69                      | 65                        | 2                          |
| Brinjal                    | 31                 | 33                      | 30                        | 1                          |
| Mushroom                   | 12                 | 356                     | 325                       | 4                          |
| Coriander                  | 3                  | 44                      | 10                        | 0.1                        |
| <b>Total Amount Earned</b> |                    |                         |                           | <b>1,310</b>               |

### 13. Fruit Utilization for 2017

**Table 16: Fruits Utilization**

| Commodities                | Quantity Sold(MT) | Mean Unit Price (Nu/Kg) | Median Unit Price (Nu/Kg) | Amount Earned (Million Nu) |
|----------------------------|-------------------|-------------------------|---------------------------|----------------------------|
| Apple                      | 3,077             | 34                      | 33                        | 105                        |
| Areca nut                  | 7,797             | 72                      | 30                        | 561                        |
| Apricot                    | 1                 | 55                      | 50                        | 0.1                        |
| Avocado                    | 14                | 246                     | 250                       | 3                          |
| Coconut                    | 0.4               | 30                      | 30                        | 0.01                       |
| Guava                      | 69                | 43                      | 35                        | 3                          |
| Lemon                      | 15                | 53                      | 53                        | 1                          |
| Litchi                     | 116               | 43                      | 40                        | 5                          |
| Mandarin                   | 17,271            | 34                      | 38                        | 480                        |
| Papaya                     | 39                | 47                      | 45                        | 2                          |
| Passion fruit              | 1                 | 43                      | 25                        | 0.04                       |
| Peach                      | 1,327             | 48                      | 50                        | 64                         |
| Pear                       | 467               | 47                      | 43                        | 22                         |
| Persimmon                  | 17                | 64                      | 50                        | 1                          |
| Pine Apple                 | 14                | 28                      | 28                        | 0.4                        |
| Plum                       | 18                | 56                      | 40                        | 1                          |
| Pomegranate                | 3                 | 52                      | 30                        | 0.1                        |
| Sugarcane                  | 15                | 45                      | 40                        | 1                          |
| Walnut                     | 24                | 118                     | 63                        | 3                          |
| Date Plum                  | 0.1               | 69                      | 69                        | 0.01                       |
| Water Melon                | 10                | 50                      | 48                        | 1                          |
| <b>Total Amount Earned</b> |                   |                         |                           | <b>1,254</b>               |

## 14. HHs Cash Income

**Table 17: Cash income from forest edible products and other activities in 2017**

| Household Cash income from forest edible products and other activities        | Amount Earned (Nu) |
|---|--------------------|
| Bamboo products (bamboo shoot)  | 2.8                |
| Cane products (cane shoot (patsha))   | 1.6                |
| Fern (Nakay)  | 3.7                |
| Damru   | 0.7                |
| Namna/Namda/Namsaa  | 0.3                |
| Medicinal Aromatic Plants/herbs   | 25                 |
| Wild Mushrooms  | 12                 |
| Cordyceps   | 190                |
| Weaving (Weaving and sale of woven products)                                  | 94                 |
| Pottering (Carrying Luggage and other loads)                                  | 41                 |
| Buisness/Contract works   | 1,100              |
| Part time skilled labour (eg. Carpentry, Wood Crafting, Traditional Painting) | 404                |
| On-farm labour wages  | 297                |

**Table 18: Cash income from processed cereal products (Processed from own produced crop)**

| Commodities         | Quantity produce (MT) | Quantity Sold (MT) | Avg. Unit price (Nu/kg) | Amount Earned (Nu. million) |
|---------------------|-----------------------|--------------------|-------------------------|-----------------------------|
| Tengma              | 595                   | 357                | 138                     | 48                          |
| Zaw                 | 393                   | 276                | 71                      | 20                          |
| Zawflour (Zaw chee) | 3                     | 3                  | 60                      | 0.2                         |
| Sip(from rice)      | 33                    | 10                 | 159                     | 1.5                         |
| Makhu               | 9                     | 8                  | 100                     | 0.8                         |
| Alcohol             | 1,481                 | 331                | 35                      | 12                          |
| Animal feed         | 2,402                 |                    |                         |                             |

**Table 19: Crops from own production sold in last one year**

| Commodities                | Quantity sold (MT) | Unit Price (Nu/kg) |        | Amount Earned (Million Nu) |
|----------------------------|--------------------|--------------------|--------|----------------------------|
|                            |                    | Mean               | Median |                            |
| Rice                       | 1,553              | 97                 | 69     | 150.05                     |
| <i>Kharang</i>             | 3                  | 60                 | 68     | 0.17                       |
| Banana chips               | 5                  | 50                 | 55     | 0.25                       |
| Dry Chilli                 | 3                  | 690                | 600    | 2.17                       |
| Dry Persimmon              | 1                  | 50                 | 50     | 0.04                       |
| Gundurug                   | 0.02               | 300                | 300    | 0.01                       |
| Green Tea                  | 75                 | 2,800              | 2,800  | 210.00                     |
| <b>Total Amount Earned</b> |                    |                    |        | <b>362.69</b>              |

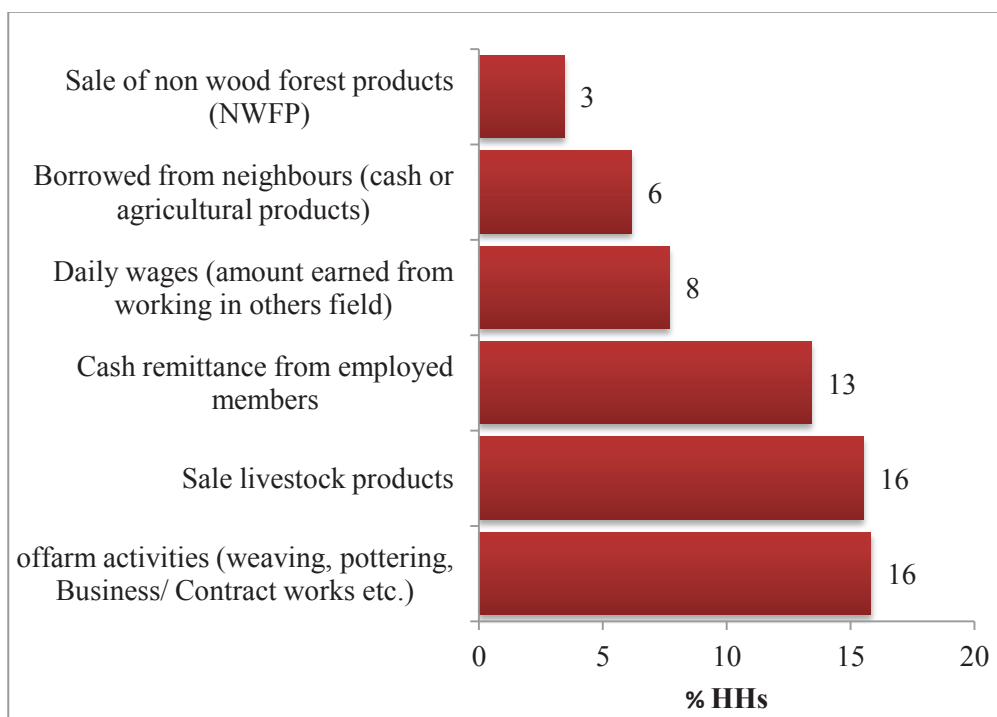
## 15. Food Security

**Table 20: Proportion of farming households by self-sufficiency of food (agriculture crops) for 2017**

| Dzongkhag       | Enough    | Not Enough |
|-----------------|-----------|------------|
| Bumthang        | 65        | 35         |
| Chhukha         | 66        | 34         |
| Dagana          | 52        | 48         |
| Gasa            | 26        | 74         |
| Haa             | 22        | 78         |
| Lhuentse        | 80        | 20         |
| Mongar          | 95        | 5          |
| Paro            | 83        | 17         |
| Pemagatshel     | 73        | 27         |
| Punakha         | 90        | 10         |
| Samdrupjongkhar | 77        | 23         |
| Samtse          | 40        | 60         |
| Sarpang         | 55        | 45         |
| Thimphu         | 36        | 64         |
| Trashigang      | 74        | 26         |
| Trashiyangtse   | 64        | 36         |
| Trongsa         | 49        | 51         |
| Tsirang         | 45        | 55         |
| Wangdue         | 72        | 28         |
| Zhemgang        | 71        | 29         |
| <b>Bhutan</b>   | <b>62</b> | <b>38</b>  |

**Table 21: Food shortage coping mechanism in 2017**

| Coping Mechanisms adopted   | % HHS |
|---|-------|
| Sale of non-wood forest products (NWFP)                                 | 3     |
| Sale livestock products   | 16    |
| Cash remittance from employed members                                   | 13    |
| Off-farm activities (weaving, pottering, Business/ Contract works etc.) | 16    |
| Borrowed from neighbours (cash or agricultural products)                | 6     |
| Daily wages (amount earned from working in others field)                | 8     |



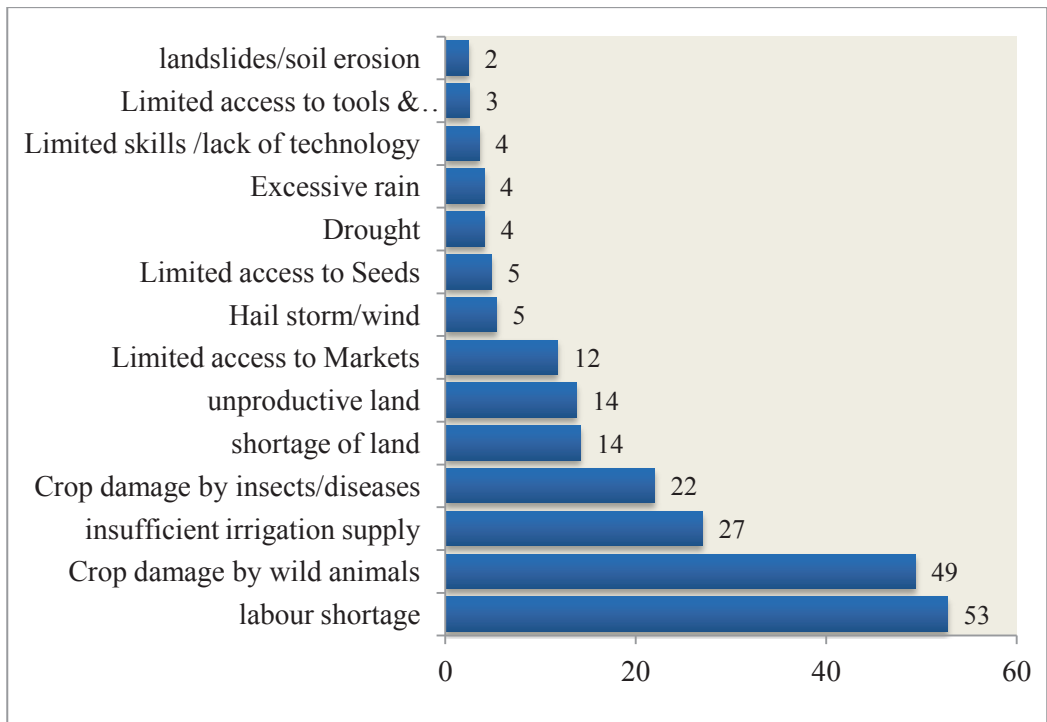
**Figure 6: Proportion of HHs using various coping mechanisms to address the food (agriculture crops) shortage in the year 2017**

## 16. Farming Constraints Faced

**Table 22: Proportion of HHs affected by the various farming constraints in the year 2017**

| <b>Farming Constrains Faced</b>    | <b>%HHs</b> |
|------------------------------------|-------------|
| Labour shortage                    | 53          |
| Crop damage by wild animals        | 49          |
| Unproductive land                  | 14          |
| Shortage of land                   | 14          |
| Crop damage by insects/diseases    | 22          |
| Insufficient irrigation supply     | 27          |
| Landslides/soil erosion            | 2           |
| Hail storm/wind                    | 5           |
| Excessive rain                     | 4           |
| Limited access to Markets          | 12          |
| Drought                            | 4           |
| Limited access to Seeds            | 5           |
| Limited skills /lack of technology | 4           |
| Limited access to tools &equipment | 3           |





**Figure 7: Proportion of farming HHs affected by the various constrains in the year 2017**

## 17. Crop damage by wild animals

**Table 23: Estimated Paddy quantity lost to the wild animals**

| <b>Dzongkhag</b> | <b>Quantity lost (MT)</b> |
|------------------|---------------------------|
| Bumthang         | 0.4                       |
| Chhukha          | 32                        |
| Dagana           | 91                        |
| Gasa             | 5                         |
| Haa              | 11                        |
| Lhuentse         | 116                       |
| Mongar           | 11                        |
| Paro             | 56                        |
| Pemagatshel      | 3                         |
| Punakha          | 129                       |
| Samdrupjongkhar  | 45                        |
| Samtse           | 94                        |
| Sarpang          | 143                       |
| Thimphu          | 7                         |
| Trashigang       | 126                       |
| Trashiyangtse    | 61                        |
| Trongsa          | 59                        |
| Tsirang          | 105                       |
| Wangdue          | 132                       |
| Zhemgang         | 58                        |
| <b>Total</b>     | <b>1,284</b>              |

**Table 24: Estimated Maize quantity lost to the wild animals**

| <b>Dzongkhag</b> | <b>Quantity lost (MT)</b> |
|------------------|---------------------------|
| Chhukha          | 93                        |
| Dagana           | 273                       |
| Haa              | 16                        |
| Lhuentse         | 226                       |
| Mongar           | 453                       |
| Paro             | 3                         |
| Pemagatshel      | 170                       |
| Punakha          | 7                         |
| Samdrupjongkhar  | 2,144                     |
| Samtse           | 308                       |
| Sarpang          | 262                       |
| Trashigang       | 334                       |
| Trashiyangtse    | 126                       |
| Trongsa          | 115                       |
| Tsirang          | 499                       |
| Wangdue          | 6                         |
| Zhemgang         | 115                       |
| <b>Total</b>     | <b>5,151</b>              |

**Table 25: Estimated Wheat quantity lost to the wild animals**

| <b>Dzongkhag</b> | <b>Quantity lost (MT)</b> |
|------------------|---------------------------|
| Bumthang         | 4                         |
| Haa              | 8                         |
| Paro             | 2                         |
| Punakha          | 9                         |
| Samtse           | 1                         |
| Trongsa          | 4                         |
| Wangdue          | 8                         |
| Zhemgang         | 0.3                       |
| <b>Total</b>     | <b>37</b>                 |

**Table 26: Estimated Barley quantity lost to the wild animals**

| <b>Dzongkhag</b> | <b>Quantity lost (Mt)</b> |
|------------------|---------------------------|
| Bumthang         | 3.7                       |
| Dagana           | 0.01                      |
| Haa              | 0.3                       |
| Mongar           | 1.5                       |
| Punakha          | 0.2                       |
| Trashigang       | 0.3                       |
| Trongsa          | 0.5                       |
| Tsirang          | 0.1                       |
| Wangdue          | 1.4                       |
| <b>Total</b>     | <b>8</b>                  |

**Table 27: Estimated Millet quantity lost to the wild animals**

| Dzongkhag       | Quantity lost (MT) |
|-----------------|--------------------|
| Chhukha         | 2                  |
| Dagana          | 4                  |
| Haa             | 1                  |
| Lhuentse        | 0.4                |
| Pemagatshel     | 1                  |
| Samdrupjongkhar | 5                  |
| Samtse          | 22                 |
| Sarpang         | 19                 |
| Trashiyangtse   | 9                  |
| Tsirang         | 1                  |
| Wangdue         | 0.07               |
| Zhemgang        | 0.02               |
| <b>Total</b>    | <b>64</b>          |

**Table 28: Estimated Buckwheat quantity lost to the wild animals**

| Dzongkhag       | Quantity lost (MT) |
|-----------------|--------------------|
| Bumthang        | 21                 |
| Chhukha         | 2                  |
| Dagana          | 1.7                |
| Haa             | 27                 |
| Mongar          | 2                  |
| Pemagatshel     | 0.4                |
| Punakha         | 4.8                |
| Samdrupjongkhar | 4.2                |
| Samtse          | 0.8                |
| Sarpang         | 4                  |
| Trongsa         | 8                  |
| Tsirang         | 0.7                |
| Wangdue         | 0.7                |
| Zhemgang        | 1                  |
| <b>Total</b>    | <b>78</b>          |

**Table 29: Estimated Vegetable quantity lost to the wild animals**

| <b>Dzongkhag</b> | <b>Quantity lost (MT)</b> |
|------------------|---------------------------|
| Chhukha          | 7                         |
| Dagana           | 22                        |
| Gasa             | 0.2                       |
| Haa              | 44                        |
| Lhuentse         | 11                        |
| Mongar           | 7                         |
| Paro             | 11                        |
| Pemagatshel      | 4                         |
| Punakha          | 6                         |
| Samdrupjongkhar  | 15                        |
| Samtse           | 7                         |
| Sarpang          | 15                        |
| Thimphu          | 2                         |
| Trashigang       | 14                        |
| Trashiyangtse    | 5                         |
| Trongsa          | 10                        |
| Tsirang          | 14                        |
| Wangdue          | 26                        |
| Zhemgang         | 0.7                       |
| <b>Total</b>     | <b>221</b>                |

**Table 30: Estimated Potato quantity lost to the wild animals**

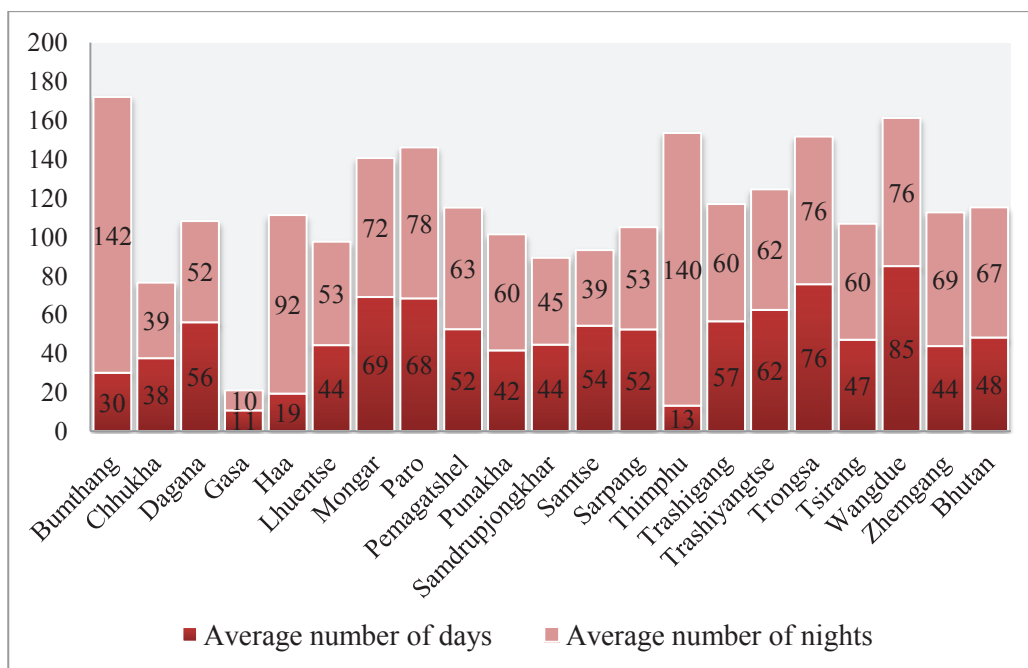
| Dzongkhag       | Quantity lost (MT) |
|-----------------|--------------------|
| Bumthang        | 45                 |
| Chhukha         | 109                |
| Dagana          | 1                  |
| Haa             | 150.5              |
| Lhuentse        | 20.3               |
| Mongar          | 71.0               |
| Paro            | 114.9              |
| Pemagatshel     | 17.5               |
| Punakha         | 0.2                |
| Samdrupjongkhar | 17.5               |
| Samtse          | 0.4                |
| Sarpang         | 0.4                |
| Thimphu         | 12                 |
| Trashigang      | 330                |
| Trashiyangtse   | 163                |
| Trongsa         | 9                  |
| Tsirang         | 2                  |
| Wangdue         | 344                |
| Zhemgang        | 0.5                |
| <b>Total</b>    | <b>1,407</b>       |

## 18. Crop Guarding

**Table 31: Dzongkhag wise estimated average number of days and nights spent in guarding crops from wild animal damages in 2017**

| Dzongkhag       | Average number of days | Average number of nights |
|-----------------|------------------------|--------------------------|
| Bumthang        | 30                     | 141                      |
| Chhukha         | 38                     | 39                       |
| Dagana          | 56                     | 52                       |
| Gasa            | 11                     | 10                       |
| Haa             | 19                     | 92                       |
| Lhuentse        | 44                     | 53                       |
| Mongar          | 69                     | 72                       |
| Paro            | 68                     | 78                       |
| Pemagatshel     | 52                     | 63                       |
| Punakha         | 42                     | 60                       |
| Samdrupjongkhar | 44                     | 45                       |
| Samtse          | 54                     | 39                       |
| Sarpang         | 52                     | 53                       |
| Thimphu         | 13                     | 140                      |
| Trashigang      | 57                     | 60                       |
| Trashiyangtse   | 62                     | 62                       |
| Trongsa         | 76                     | 76                       |
| Tsirang         | 47                     | 60                       |
| Wangdue         | 85                     | 76                       |
| Zhemgang        | 44                     | 69                       |
| <b>Total</b>    | <b>48</b>              | <b>67</b>                |





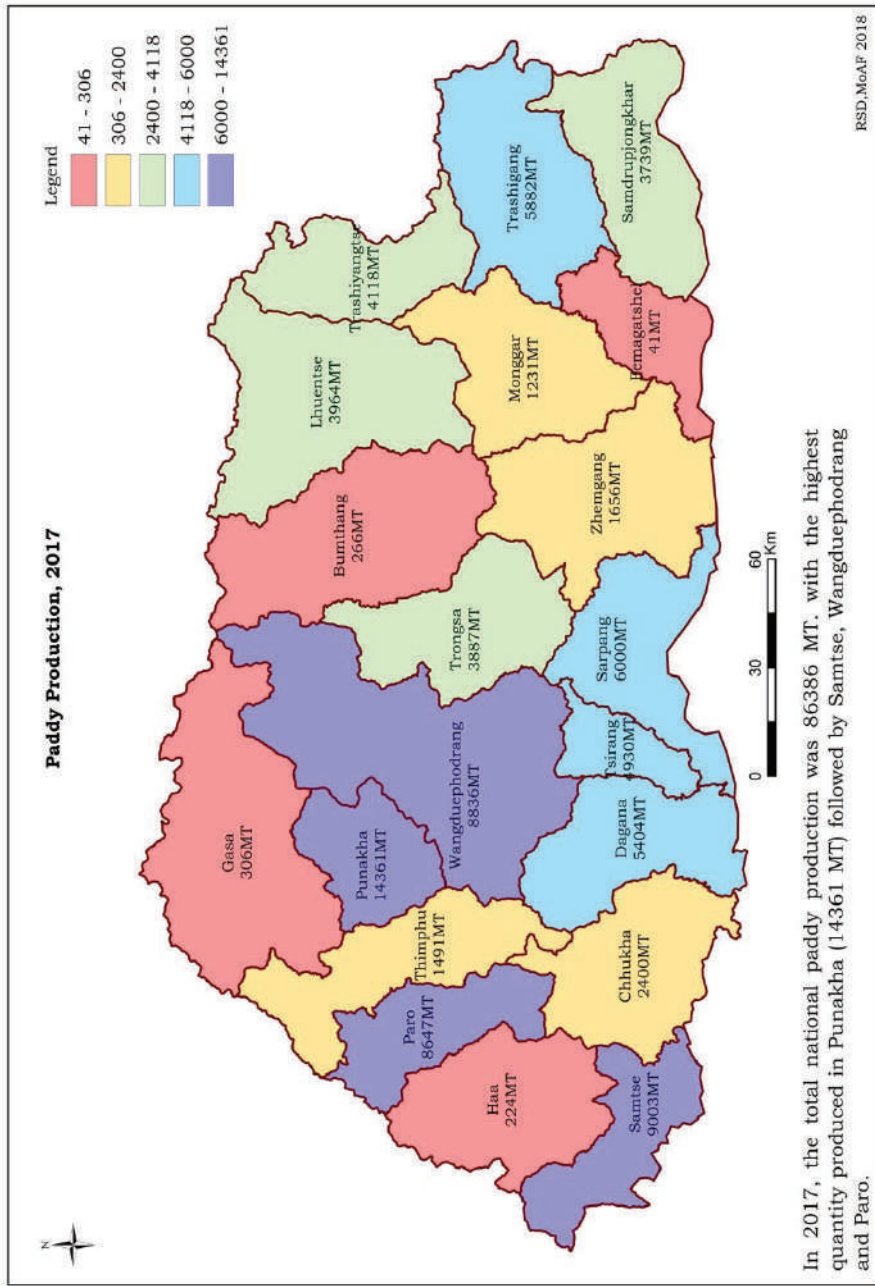
**Figure 8: Dzongkhag wise estimated number of days and nights spent in guarding the crops from wild animal’s damages**

**PART 3**  
**DZONGKHAG LEVEL CROP AREA & PRODUCTION**  
**STATISTICS**

## 19. Cereal Crops

**Table 32: Paddy harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 160                           | 266                    | 1,574                  |
| Chhukha          | 2,333                         | 2,400                  | 1,029                  |
| Dagana           | 3,906                         | 5,404                  | 1,383                  |
| Gasa             | 137                           | 306                    | 2,286                  |
| Haa              | 179                           | 224                    | 1,270                  |
| Lhuentse         | 2,173                         | 3,964                  | 1,824                  |
| Mongar           | 1,076                         | 1,231                  | 1,144                  |
| Paro             | 3,459                         | 8,647                  | 2,500                  |
| Pemagatshel      | 28                            | 41                     | 1,464                  |
| Punakha          | 7,339                         | 14,361                 | 1,957                  |
| Samdrupjongkhar  | 2,368                         | 3,739                  | 1,579                  |
| Samtse           | 6,104                         | 9,003                  | 1,475                  |
| Sarpang          | 4,255                         | 6,000                  | 1,410                  |
| Thimphu          | 592                           | 1,491                  | 2,331                  |
| Trashigang       | 3,671                         | 5,882                  | 1,602                  |
| Trashiyangtse    | 2,301                         | 4,118                  | 1,790                  |
| Trongsa          | 1,738                         | 3,887                  | 2,237                  |
| Tsirang          | 3,265                         | 4,930                  | 1,510                  |
| Wangdue          | 5,070                         | 8,836                  | 1,833                  |
| Zhemgang         | 1,214                         | 1,656                  | 1,364                  |
| <b>Total</b>     | <b>51,368</b>                 | <b>86,385</b>          | <b>1,682</b>           |

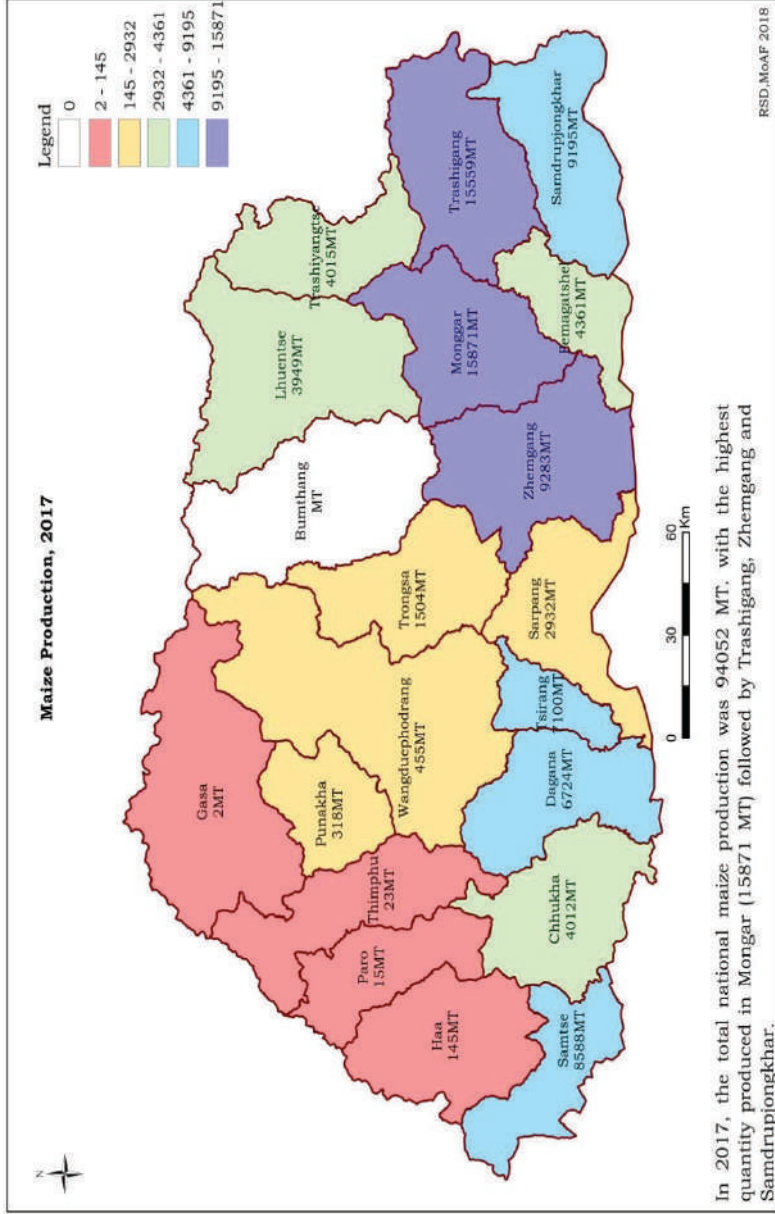


In 2017, the total national paddy production was 86386 MT. with the highest quantity produced in Punakha (14361 MT) followed by Samtse, Wangduephodrang and Paro.

**Figure 9 : Dzongkhag wise paddy production in 2017**

**Table 33: Maize harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Chhukha          | 3,115                         | 4,012                  | 1,288                  |
| Dagana           | 6,754                         | 6,724                  | 996                    |
| Gasa             | 1                             | 2                      | 1,538                  |
| Haa              | 166                           | 145                    | 878                    |
| Lhuentse         | 2,641                         | 3,949                  | 1,495                  |
| Mongar           | 11,503                        | 15,871                 | 1,380                  |
| Paro             | 24                            | 15                     | 615                    |
| Pemagatshel      | 3,964                         | 4,361                  | 1,100                  |
| Punakha          | 162                           | 318                    | 1,966                  |
| Samdrupjongkhar  | 8,221                         | 9,195                  | 1,118                  |
| Samtse           | 5,195                         | 8,588                  | 1,653                  |
| Sarpang          | 4,008                         | 2,932                  | 732                    |
| Thimphu          | 8                             | 23                     | 2,986                  |
| Trashigang       | 6,997                         | 15,559                 | 2,224                  |
| Trashiyangtse    | 2,165                         | 4,015                  | 1,854                  |
| Trongsa          | 825                           | 1,504                  | 1,822                  |
| Tsirang          | 2,545                         | 7,100                  | 2,790                  |
| Wangdue          | 285                           | 455                    | 1,596                  |
| Zhemgang         | 7,464                         | 9,283                  | 1,244                  |
| <b>Total</b>     | <b>66,042</b>                 | <b>94,052</b>          | <b>1424.12</b>         |



In 2017, the total national maize production was 94052 MT, with the highest quantity produced in Monggar (15871 MT) followed by Trashigang, Zhemgang and Samdrupiongkhar.

*Figure 10: Dzongkhag wise maize production in 2017*

**Table 34: Wheat harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Bumthang        | 802                    | 682             | 648             |
| Chhukha         | 210                    | 246             | 1,171           |
| Dagana          | 62                     | 33              | 538             |
| Gasa            | 58                     | 50              | 864             |
| Haa             | 418                    | 155             | 500             |
| Lhuentse        | 20                     | 19              | 836             |
| Mongar          | 100                    | 78              | 780             |
| Paro            | 490                    | 334             | 765             |
| Pemagatshel     | 37                     | 31              | 668             |
| Punakha         | 543                    | 436             | 803             |
| Samdrupjongkhar | 38                     | 65              | 763             |
| Samtse          | 223                    | 130             | 583             |
| Sarpang         | 89                     | 65              | 774             |
| Thimphu         | 389                    | 316             | 813             |
| Trashigang      | 167                    | 147             | 880             |
| Trashiyangtse   | 64                     | 33              | 624             |
| Trongsa         | 473                    | 288             | 617             |
| Tsirang         | 48                     | 17              | 359             |
| Wangdue         | 943                    | 624             | 709             |
| Zhemgang        | 84                     | 85              | 952             |
| <b>Total</b>    | <b>5259</b>            | <b>3,833</b>    | <b>729</b>      |

**Table 35: Barley harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 331                           | 302                    | 912                    |
| Chhukha          | 167                           | 75                     | 446                    |
| Dagana           | 15                            | 9                      | 641                    |
| Gasa             | 232                           | 250                    | 1,079                  |
| Haa              | 22                            | 8                      | 352                    |
| Lhuentse         | 9                             | 6                      | 720                    |
| Mongar           | 1,867                         | 882                    | 472                    |
| Paro             | 78                            | 48                     | 613                    |
| Pemagatshel      | 11                            | 6                      | 526                    |
| Punakha          | 42                            | 10                     | 239                    |
| Samdrupjongkhar  | 68                            | 17                     | 248                    |
| Samtse           | 4                             | 2                      | 515                    |
| Sarpang          | 2                             | 0.3                    | 199                    |
| Thimphu          | 22                            | 13                     | 607                    |
| Trashigang       | 71                            | 58                     | 811                    |
| Trashiyangtse    | 1                             | 0.2                    | 121                    |
| Trongsa          | 296                           | 220                    | 742                    |
| Tsirang          | 6                             | 3                      | 430                    |
| Wangdue          | 169                           | 93                     | 552                    |
| Zhemgang         | 7                             | 3                      | 416                    |
| <b>Total</b>     | <b>3,421</b>                  | <b>2,005</b>           | <b>586.08</b>          |

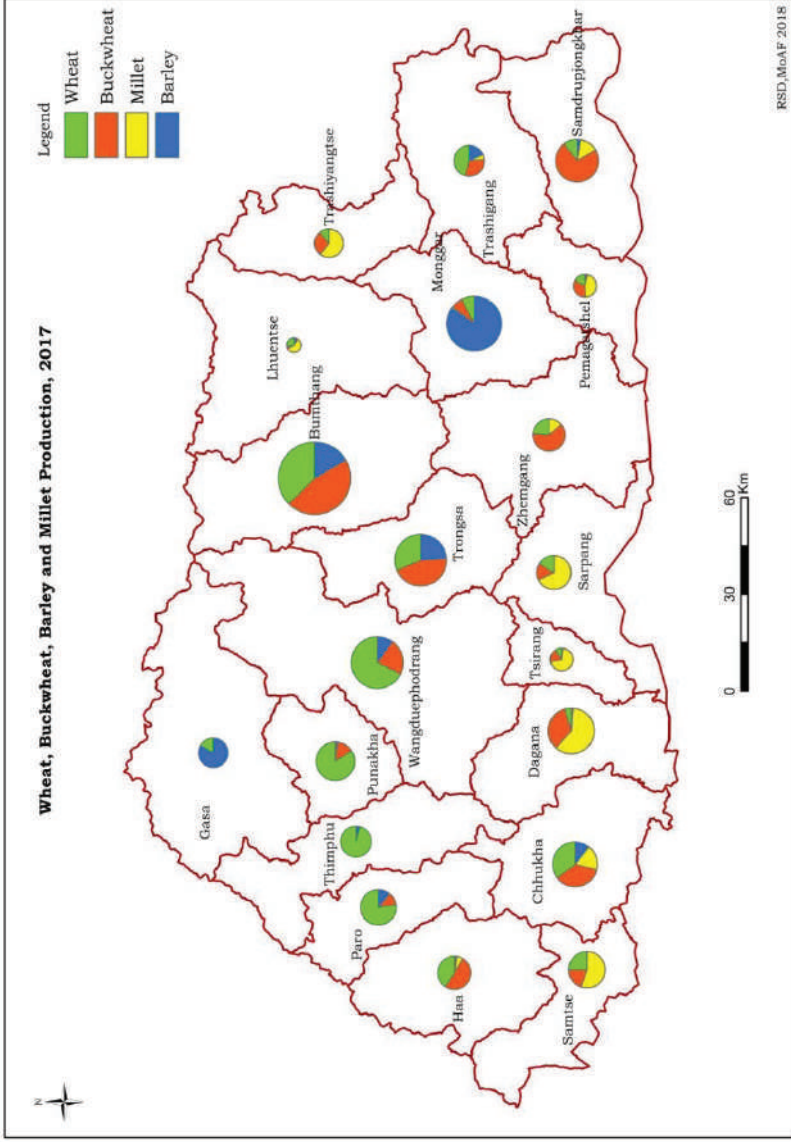


**Table 36: Buckwheat harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 1,160                         | 843                    | 726                    |
| Chhukha          | 529                           | 251                    | 475                    |
| Dagana           | 310                           | 250                    | 807                    |
| Haa              | 423                           | 193                    | 455                    |
| Lhuentse         | 10                            | 5                      | 506                    |
| Mongar           | 266                           | 73                     | 276                    |
| Paro             | 106                           | 50                     | 474                    |
| Pemagatshel      | 265                           | 62                     | 233                    |
| Punakha          | 99                            | 73                     | 739                    |
| Samdrupjongkhar  | 304                           | 465                    | 1527                   |
| Samtse           | 216                           | 91                     | 420                    |
| Sarpang          | 166                           | 66                     | 396                    |
| Thimphu          | 1                             | 0.1                    | 161                    |
| Trashigang       | 270                           | 99                     | 366                    |
| Trashiyangtse    | 150                           | 79                     | 527                    |
| Trongsa          | 671                           | 415                    | 618                    |
| Tsirang          | 114                           | 33                     | 291                    |
| Wangdue          | 349                           | 207                    | 594                    |
| Zhemgang         | 406                           | 225                    | 554                    |
| <b>Total</b>     | <b>5,817</b>                  | <b>3,480</b>           | <b>598.23</b>          |

**Table 37: Millet harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Chhukha          | 447                           | 128                    | 286                    |
| Dagana           | 454                           | 447                    | 984                    |
| Haa              | 52                            | 24                     | 468                    |
| Lhuentse         | 74                            | 41                     | 550                    |
| Mongar           | 22                            | 11                     | 512                    |
| Paro             | 9                             | 4                      | 453                    |
| Pemagatshel      | 247                           | 83                     | 336                    |
| Punakha          | 2                             | 0.3                    | 195                    |
| Samdrupjongkhar  | 176                           | 88                     | 497                    |
| Samtse           | 613                           | 255                    | 416                    |
| Sarpang          | 656                           | 276                    | 421                    |
| Thimphu          | 0.5                           | 0.1                    | 277                    |
| Trashigang       | 48                            | 19                     | 391                    |
| Trashiyangtse    | 305                           | 173                    | 566                    |
| Trongsa          | 25                            | 9                      | 363                    |
| Tsirang          | 331                           | 126                    | 379                    |
| Wangdue          | 8                             | 6                      | 733                    |
| Zhemgang         | 153                           | 49                     | 318                    |
| <b>Total</b>     | <b>3,623</b>                  | <b>1,739</b>           | <b>479.87</b>          |



*Figure 11: Dzongkhag wise other cereals production in 2017*

**Table 38: Amaranth harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Chhukha         | 3                      | 0.2             | 69              |
| Haa             | 2                      | 0.5             | 235             |
| Lhuentse        | 1                      | 0.1             | 67              |
| Mongar          | 16                     | 1               | 35              |
| Pemagatshel     | 12                     | 1               | 41              |
| Samdrupjongkhar | 6                      | 1               | 101             |
| Samtse          | 0.5                    | 0.1             | 196             |
| Trongsa         | 0.1                    | 0.02            | 400             |
| Tsirang         | 3                      | 0.02            | 7               |
| Wangdue         | 1                      | 0.3             | 245             |
| Zhemgang        | 0.4                    | 0.1             | 256             |
| <b>Total</b>    | <b>43</b>              | <b>3</b>        | <b>66</b>       |

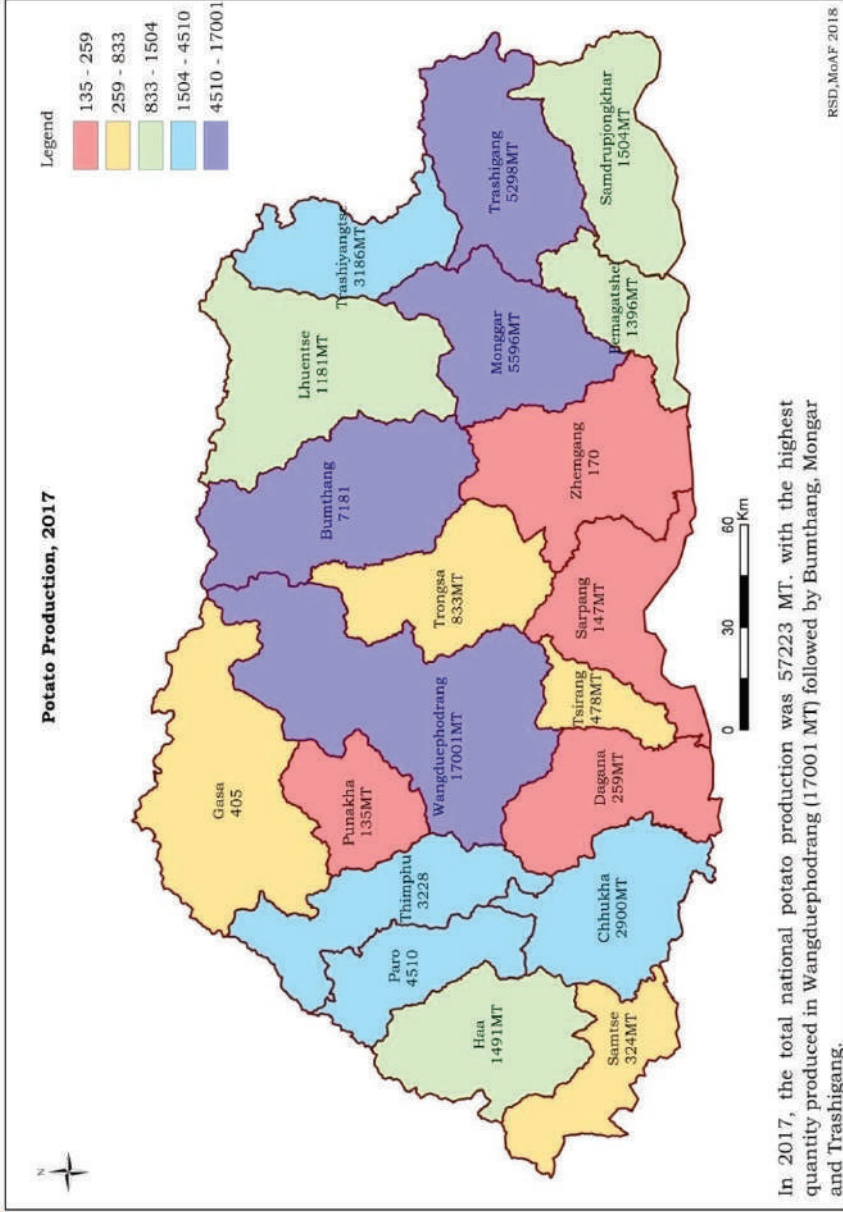
**Table 39: Quinoa harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Chhukha         | 7                      | 1               | 103             |
| Dagana          | 0.2                    | 0.1             | 273             |
| Haa             | 2                      | 1               | 212             |
| Lhuentse        | 10                     | 2               | 196             |
| Mongar          | 22                     | 3               | 128             |
| Paro            | 2                      | 0.2             | 79              |
| Pemagatshel     | 5                      | 1               | 157             |
| Samdrupjongkhar | 3                      | 0.2             | 81              |
| Samtse          | 10                     | 2               | 158             |
| Sarpang         | 0.4                    | 0.05            | 125             |
| Thimphu         | 0.3                    | 0.09            | 346             |
| Trashigang      | 7                      | 0.3             | 42              |
| Trashiyangtse   | 1                      | 0.02            | 14              |
| Tsirang         | 0.2                    | 0.01            | 59              |
| Wangdue         | 0.2                    | 0.03            | 200             |
| <b>Total</b>    | <b>70</b>              | <b>9</b>        | <b>132</b>      |

## 20. Vegetable Crops

**Table 40: Potato harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Bumthang        | 1,015                  | 7,181           | 7,075           |
| Chhukha         | 559                    | 2,900           | 5,190           |
| Dagana          | 290                    | 259             | 892             |
| Gasa            | 108                    | 405             | 3,757           |
| Haa             | 364                    | 1,491           | 4,101           |
| Lhuentse        | 301                    | 1,181           | 3,921           |
| Mongar          | 1,940                  | 5,596           | 2,885           |
| Paro            | 962                    | 4,510           | 4,687           |
| Pemagatshel     | 328                    | 1,396           | 4,250           |
| Punakha         | 69                     | 135             | 1,970           |
| Samdrupjongkhar | 685                    | 1,504           | 2,197           |
| Samtse          | 175                    | 324             | 1,851           |
| Sarpang         | 128                    | 147             | 1,151           |
| Thimphu         | 371                    | 3,228           | 6,355           |
| Trashigang      | 1,348                  | 5,298           | 3,932           |
| Trashiyangtse   | 541                    | 3,186           | 5,894           |
| Trongsa         | 197                    | 833             | 4,227           |
| Tsirang         | 215                    | 478             | 2,225           |
| Wangdue         | 3,106                  | 17,001          | 5,474           |
| Zhemgang        | 124                    | 170             | 1,377           |
| <b>Total</b>    | <b>12,824</b>          | <b>57,223</b>   | <b>4,462</b>    |



In 2017, the total national potato production was 57223 MT. with the highest quantity produced in Wangduephodrang (17001 MT) followed by Bumthang, Monggar and Trashigang.

*Figure 12: Dzongkhag wise potato production in 2017*

**Table 41: Asparagus harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Chhukha          | 1                             | 0.2                    | 152                    |
| Dagana           | 1                             | 0.1                    | 196                    |
| Gasa             | 1                             | 0.4                    | 510                    |
| Haa              | 1                             | 1                      | 755                    |
| Lhuentse         | 6                             | 2                      | 391                    |
| Mongar           | 14                            | 2                      | 168                    |
| Paro             | 39                            | 33                     | 831                    |
| Pemagatshel      | 25                            | 2                      | 88                     |
| Punakha          | 12                            | 2                      | 213                    |
| Samdrupjongkhar  | 22                            | 4                      | 179                    |
| Samtse           | 1                             | 0.4                    | 302                    |
| Sarpang          | 3                             | 1                      | 275                    |
| Thimphu          | 13                            | 7                      | 539                    |
| Trashigang       | 20                            | 9                      | 433                    |
| Trashiyangtse    | 18                            | 2                      | 95                     |
| Trongsa          | 16                            | 6                      | 358                    |
| Tsirang          | 1                             | 0.2                    | 165                    |
| Wangdue          | 6                             | 6                      | 1165                   |
| Zhemgang         | 0.1                           | 0.02                   | 333                    |
| <b>Total</b>     | <b>201</b>                    | <b>79</b>              | <b>392</b>             |

**Table 42: Chilli harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production(MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|-----------------------|------------------------|
| Bumthang         | 66                            | 193                   | 2,903                  |
| Chhukha          | 258                           | 515                   | 1,993                  |
| Dagana           | 407                           | 250                   | 614                    |
| Gasa             | 9                             | 18                    | 2,114                  |
| Haa              | 22                            | 39                    | 1,757                  |
| Lhuentse         | 380                           | 812                   | 2,135                  |
| Mongar           | 1,771                         | 1,608                 | 908                    |
| Paro             | 478                           | 1,193                 | 2,496                  |
| Pemagatshel      | 227                           | 343                   | 1,515                  |
| Punakha          | 360                           | 873                   | 2,425                  |
| Samdrupjongkhar  | 477                           | 586                   | 1,229                  |
| Samtse           | 104                           | 92                    | 881                    |
| Sarpang          | 234                           | 232                   | 994                    |
| Thimphu          | 147                           | 502                   | 3,412                  |
| Trashigang       | 663                           | 999                   | 1,507                  |
| Trashiyangtse    | 640                           | 1,929                 | 3,012                  |
| Trongsa          | 198                           | 594                   | 2,992                  |
| Tsirang          | 539                           | 1,536                 | 2,851                  |
| Wangdue          | 498                           | 1,192                 | 2,396                  |
| Zhemgang         | 92                            | 99                    | 1,072                  |
| <b>Total</b>     | <b>7,571</b>                  | <b>13,606</b>         | <b>1,797</b>           |



**Table 43: Cabbage harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 19                            | 39                     | 2,068                  |
| Chhukha          | 90                            | 168                    | 1,867                  |
| Dagana           | 106                           | 74                     | 695                    |
| Gasa             | 13                            | 35                     | 2,649                  |
| Haa              | 64                            | 194                    | 3,009                  |
| Lhuentse         | 153                           | 302                    | 1,974                  |
| Mongar           | 453                           | 813                    | 1,797                  |
| Paro             | 290                           | 1,338                  | 4,618                  |
| Pemagatshel      | 171                           | 546                    | 3,201                  |
| Punakha          | 90                            | 298                    | 3,329                  |
| Samdrupjongkhar  | 399                           | 384                    | 963                    |
| Samtse           | 115                           | 127                    | 1,106                  |
| Sarpang          | 140                           | 84                     | 597                    |
| Thimphu          | 148                           | 1,147                  | 7,752                  |
| Trashigang       | 299                           | 988                    | 3,304                  |
| Trashiyangtse    | 386                           | 1,655                  | 4,289                  |
| Trongsa          | 134                           | 637                    | 4,752                  |
| Tsirang          | 274                           | 1,204                  | 4,386                  |
| Wangdue          | 143                           | 448                    | 3,128                  |
| Zhemgang         | 65                            | 81                     | 1,254                  |
| <b>Total</b>     | <b>3,551</b>                  | <b>10,562</b>          | <b>2,974</b>           |

**Table 44: Cauliflower harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 7                             | 20                     | 2,654                  |
| Chhukha          | 40                            | 61                     | 1,503                  |
| Dagana           | 65                            | 69                     | 1,065                  |
| Gasa             | 6                             | 10                     | 1,767                  |
| Haa              | 11                            | 18                     | 1,684                  |
| Lhuentse         | 77                            | 130                    | 1,684                  |
| Mongar           | 176                           | 195                    | 1,112                  |
| Paro             | 39                            | 107                    | 2,765                  |
| Pemagatshel      | 25                            | 31                     | 1,266                  |
| Punakha          | 55                            | 171                    | 3,109                  |
| Samdrupjongkhar  | 336                           | 611                    | 1,818                  |
| Samtse           | 60                            | 84                     | 1,410                  |
| Sarpang          | 47                            | 56                     | 1,200                  |
| Thimphu          | 101                           | 620                    | 3,066                  |
| Trashigang       | 80                            | 148                    | 1,859                  |
| Trashiyangtse    | 267                           | 846                    | 3,168                  |
| Trongsa          | 53                            | 180                    | 3,396                  |
| Tsirang          | 81                            | 78                     | 963                    |
| Wangdue          | 44                            | 96                     | 2,177                  |
| Zhemgang         | 35                            | 44                     | 1,252                  |
| <b>Total</b>     | <b>1,604</b>                  | <b>3,575</b>           | <b>2,229</b>           |

**Table 45: Carrot harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Bumthang        | 5                      | 9               | 1,993           |
| Chhukha         | 28                     | 45              | 1,607           |
| Dagana          | 4                      | 7               | 1,602           |
| Gasa            | 8                      | 14              | 1,825           |
| Haa             | 26                     | 49              | 1,862           |
| Lhuentse        | 13                     | 19              | 1,534           |
| Mongar          | 34                     | 43              | 1,240           |
| Paro            | 97                     | 205             | 2,102           |
| Pemagatshel     | 12                     | 11              | 874             |
| Punakha         | 15                     | 11              | 690             |
| Samdrupjongkhar | 41                     | 35              | 855             |
| Samtse          | 6                      | 9               | 1,688           |
| Sarpang         | 11                     | 18              | 1,577           |
| Thimphu         | 60                     | 122             | 2,023           |
| Trashigang      | 14                     | 21              | 1,554           |
| Trashiyangtse   | 70                     | 26              | 370             |
| Trongsa         | 22                     | 47              | 2,095           |
| Tsirang         | 8                      | 8               | 1,001           |
| Wangdue         | 52                     | 86              | 1,650           |
| Zhemgang        | 3                      | 4               | 1,582           |
| <b>Total</b>    | <b>529.39</b>          | <b>787.17</b>   | <b>1,487</b>    |

**Table 46: Radish harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 13                            | 40                     | 3,002                  |
| Chhukha          | 80                            | 168                    | 2,097                  |
| Dagana           | 188                           | 220                    | 1,173                  |
| Gasa             | 14                            | 32                     | 2,245                  |
| Haa              | 31                            | 99                     | 3,206                  |
| Lhuentse         | 83                            | 231                    | 2,798                  |
| Mongar           | 456                           | 413                    | 904                    |
| Paro             | 66                            | 187                    | 2,832                  |
| Pemagatshel      | 217                           | 403                    | 1,860                  |
| Punakha          | 171                           | 244                    | 1,429                  |
| Samdrupjongkhar  | 471                           | 345                    | 734                    |
| Samtse           | 170                           | 292                    | 1,723                  |
| Sarpang          | 116                           | 197                    | 1,699                  |
| Thimphu          | 56                            | 332                    | 5,894                  |
| Trashigang       | 335                           | 715                    | 2,133                  |
| Trashiyangtse    | 407                           | 387                    | 951                    |
| Trongsa          | 117                           | 385                    | 3,301                  |
| Tsirang          | 138                           | 168                    | 1,215                  |
| Wangdue          | 325                           | 1,298                  | 3,993                  |
| Zhemgang         | 80                            | 151                    | 1,880                  |
| <b>Total</b>     | <b>3,533</b>                  | <b>6,307</b>           | <b>1,785</b>           |

**Table 47: Turnip harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acres)</b> |
|------------------|-------------------------------|------------------------|-------------------------|
| Bumthang         | 58                            | 324                    | 5,539                   |
| Chhukha          | 41                            | 154                    | 3,751                   |
| Dagana           | 16                            | 47                     | 3,036                   |
| Gasa             | 14                            | 138                    | 9,690                   |
| Haa              | 271                           | 2,331                  | 8,596                   |
| Lhuentse         | 3                             | 25                     | 7,587                   |
| Mongar           | 12                            | 38                     | 3,073                   |
| Paro             | 89                            | 442                    | 4,987                   |
| Pemagatshel      | 9                             | 34                     | 3,979                   |
| Punakha          | 39                            | 138                    | 3,535                   |
| Samdrupjongkhar  | 13                            | 17                     | 1,363                   |
| Samtse           | 9                             | 47                     | 5,113                   |
| Sarpang          | 2                             | 13                     | 5,408                   |
| Thimphu          | 52                            | 390                    | 7,444                   |
| Trashigang       | 17                            | 98                     | 5,838                   |
| Trashiyangtse    | 9                             | 23                     | 2,491                   |
| Trongsa          | 36                            | 196                    | 5,391                   |
| Tsirang          | 6                             | 26                     | 4,609                   |
| Wangdue          | 1,104                         | 8,558                  | 7,750                   |
| Zhemgang         | 2                             | 12                     | 5,236                   |
| <b>Total</b>     | <b>1,804</b>                  | <b>13,051</b>          | <b>7,236</b>            |

**Table 48: Beans harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 3                             | 2                      | 611                    |
| Chhukha          | 180                           | 297                    | 1,650                  |
| Dagana           | 226                           | 165                    | 730                    |
| Gasa             | 9                             | 13                     | 1,350                  |
| Haa              | 25                            | 26                     | 1,058                  |
| Lhuentse         | 172                           | 309                    | 1,795                  |
| Mongar           | 375                           | 204                    | 545                    |
| Paro             | 168                           | 343                    | 2,039                  |
| Pemagatshel      | 143                           | 86                     | 605                    |
| Punakha          | 244                           | 543                    | 2,220                  |
| Samdrupjongkhar  | 462                           | 574                    | 1,242                  |
| Samtse           | 227                           | 218                    | 961                    |
| Sarpang          | 249                           | 167                    | 671                    |
| Thimphu          | 54                            | 165                    | 3,047                  |
| Trashigang       | 187                           | 191                    | 1,024                  |
| Trashiyangtse    | 214                           | 325                    | 1,518                  |
| Trongsa          | 62                            | 140                    | 2,233                  |
| Tsirang          | 475                           | 1088                   | 2,290                  |
| Wangdue          | 192                           | 361                    | 1,883                  |
| Zhemgang         | 72                            | 58                     | 803                    |
| <b>Total</b>     | <b>3,739</b>                  | <b>5273</b>            | <b>1,410</b>           |

**Table 49: Green Peas harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 1                             | 1                      | 608                    |
| Chhukha          | 55                            | 44                     | 787                    |
| Dagana           | 41                            | 17                     | 410                    |
| Gasa             | 6                             | 5                      | 859                    |
| Haa              | 48                            | 64                     | 1,327                  |
| Lhuentse         | 24                            | 33                     | 1,381                  |
| Mongar           | 72                            | 42                     | 579                    |
| Paro             | 151                           | 203                    | 1,346                  |
| Pemagatshel      | 27                            | 15                     | 560                    |
| Punakha          | 71                            | 63                     | 882                    |
| Samdrupjongkhar  | 215                           | 97                     | 453                    |
| Samtse           | 11                            | 9                      | 835                    |
| Sarpang          | 21                            | 16                     | 764                    |
| Thimphu          | 34                            | 80                     | 2,325                  |
| Trashigang       | 32                            | 43                     | 1,329                  |
| Trashiyangtse    | 74                            | 22                     | 304                    |
| Trongsa          | 19                            | 32                     | 1,669                  |
| Tsirang          | 52                            | 22                     | 428                    |
| Wangdue          | 40                            | 47                     | 1,171                  |
| Zhemgang         | 6                             | 3                      | 505                    |
| <b>Total</b>     | <b>1,003</b>                  | <b>859</b>             | <b>856</b>             |

**Table 50: Tomato harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acres)</b> |
|------------------|-------------------------------|------------------------|-------------------------|
| Bumthang         | 0.1                           | 0.2                    | 1,500                   |
| Chhukha          | 8                             | 8                      | 979                     |
| Dagana           | 35                            | 35                     | 1,025                   |
| Gasa             | 0.1                           | 0.2                    | 2,500                   |
| Haa              | 7                             | 13                     | 1,849                   |
| Lhuentse         | 12                            | 21                     | 1,743                   |
| Mongar           | 17                            | 20                     | 1,166                   |
| Paro             | 17                            | 23                     | 1,358                   |
| Pemagatshel      | 5                             | 7                      | 1,306                   |
| Punakha          | 26                            | 33                     | 1,293                   |
| Samdrupjongkhar  | 36                            | 42                     | 1,162                   |
| Samtse           | 44                            | 49                     | 1,105                   |
| Sarpang          | 40                            | 43                     | 1,099                   |
| Thimphu          | 3                             | 4                      | 1,459                   |
| Trashigang       | 7                             | 13                     | 1,948                   |
| Trashiyangtse    | 18                            | 12                     | 672                     |
| Trongsa          | 5                             | 6                      | 1,361                   |
| Tsirang          | 19                            | 22                     | 1,172                   |
| Wangdue          | 19                            | 26                     | 1,351                   |
| Zhemgang         | 3                             | 5                      | 1,713                   |
| <b>Total</b>     | <b>320</b>                    | <b>383</b>             | <b>1,198</b>            |



**Table 51: Broccoli harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 8                             | 22                     | 2,954                  |
| Chhukha          | 22                            | 26                     | 1,217                  |
| Dagana           | 43                            | 30                     | 690                    |
| Gasa             | 7                             | 13                     | 1,962                  |
| Haa              | 4                             | 4                      | 1,050                  |
| Lhuentse         | 38                            | 50                     | 1,316                  |
| Mongar           | 118                           | 95                     | 801                    |
| Paro             | 18                            | 28                     | 1,565                  |
| Pemagatshel      | 15                            | 14                     | 909                    |
| Punakha          | 39                            | 78                     | 1,991                  |
| Samdrupjongkhar  | 229                           | 122                    | 534                    |
| Samtse           | 31                            | 38                     | 1,212                  |
| Sarpang          | 43                            | 71                     | 1,658                  |
| Thimphu          | 120                           | 443                    | 3,694                  |
| Trashigang       | 51                            | 52                     | 1,015                  |
| Trashiyangtse    | 132                           | 77                     | 585                    |
| Trongsa          | 36                            | 62                     | 1,723                  |
| Tsirang          | 43                            | 26                     | 597                    |
| Wangdue          | 42                            | 98                     | 2,350                  |
| Zhemgang         | 17                            | 22                     | 1,257                  |
| <b>Total</b>     | <b>1,056</b>                  | <b>1,371</b>           | <b>1,298</b>           |

**Table 52: Onion harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Chhukha          | 6                             | 4                      | 615                    |
| Dagana           | 56                            | 45                     | 802                    |
| Gasa             | 0.1                           | 0.2                    | 1,667                  |
| Haa              | 2                             | 4                      | 1,607                  |
| Lhuentse         | 10                            | 24                     | 2,525                  |
| Mongar           | 42                            | 43                     | 1,015                  |
| Paro             | 4                             | 5                      | 1,159                  |
| Pemagatshel      | 23                            | 21                     | 884                    |
| Punakha          | 48                            | 44                     | 910                    |
| Samdrupjongkhar  | 87                            | 55                     | 634                    |
| Samtse           | 23                            | 27                     | 1,170                  |
| Sarpang          | 42                            | 54                     | 1,287                  |
| Thimphu          | 0.4                           | 1                      | 1,941                  |
| Trashigang       | 32                            | 33                     | 1,037                  |
| Trashiyangtse    | 130                           | 48                     | 369                    |
| Trongsa          | 8                             | 15                     | 1,882                  |
| Tsirang          | 55                            | 41                     | 746                    |
| Wangdue          | 21                            | 24                     | 1,114                  |
| Zhemgang         | 4                             | 3                      | 703                    |
| <b>Total</b>     | <b>594</b>                    | <b>489</b>             | <b>824</b>             |

**Table 53:Garlic harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acre)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|------------------------------|------------------------|------------------------|
| Bumthang         | 5                            | 6                      | 1,180                  |
| Chhukha          | 15                           | 8                      | 556                    |
| Dagana           | 64                           | 15                     | 237                    |
| Gasa             | 5                            | 10                     | 2,188                  |
| Haa              | 11                           | 7                      | 637                    |
| Lhuentse         | 115                          | 165                    | 1,432                  |
| Mongar           | 264                          | 51                     | 193                    |
| Paro             | 4                            | 2                      | 477                    |
| Pemagatshel      | 85                           | 20                     | 239                    |
| Punakha          | 88                           | 30                     | 344                    |
| Samdrupjongkhar  | 161                          | 47                     | 296                    |
| Samtse           | 17                           | 15                     | 841                    |
| Sarpang          | 32                           | 16                     | 508                    |
| Thimphu          | 2                            | 1                      | 758                    |
| Trashigang       | 224                          | 162                    | 720                    |
| Trashiyangtse    | 217                          | 59                     | 272                    |
| Trongsa          | 26                           | 18                     | 682                    |
| Tsirang          | 33                           | 10                     | 296                    |
| Wangdue          | 60                           | 56                     | 937                    |
| Zhemgang         | 12                           | 8                      | 674                    |
| <b>Total</b>     | <b>1,441</b>                 | <b>708</b>             | <b>491</b>             |

**Table 54: Eggplant harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Chhukha          | 8                             | 6                      | 758                    |
| Dagana           | 34                            | 14                     | 398                    |
| Gasa             | 1                             | 5                      | 3,628                  |
| Haa              | 4                             | 5                      | 1,440                  |
| Lhuentse         | 42                            | 68                     | 1,623                  |
| Mongar           | 22                            | 12                     | 572                    |
| Paro             | 120                           | 217                    | 1,808                  |
| Pemagatshel      | 22                            | 8                      | 376                    |
| Punakha          | 38                            | 48                     | 1,251                  |
| Samdrupjongkhar  | 118                           | 24                     | 199                    |
| Samtse           | 20                            | 14                     | 725                    |
| Sarpang          | 36                            | 26                     | 726                    |
| Thimphu          | 7                             | 18                     | 2,579                  |
| Trashigang       | 70                            | 23                     | 329                    |
| Trashiyangtse    | 128                           | 34                     | 267                    |
| Trongsa          | 15                            | 20                     | 1,371                  |
| Tsirang          | 15                            | 11                     | 702                    |
| Wangdue          | 44                            | 81                     | 1,839                  |
| Zhemgang         | 9                             | 11                     | 1,246                  |
| <b>Total</b>     | <b>751</b>                    | <b>643</b>             | <b>857</b>             |

**Table 55: Lady Finger harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Chhukha          | 1                             | 1                      | 969                    |
| Dagana           | 7                             | 5                      | 728                    |
| Haa              | 0.1                           | 0.1                    | 1,075                  |
| Lhuentse         | 1                             | 1                      | 1,046                  |
| Mongar           | 0.3                           | 0.2                    | 562                    |
| Paro             | 0.3                           | 1                      | 1,643                  |
| Pemagatshel      | 3                             | 1                      | 271                    |
| Punakha          | 0.2                           | 0.1                    | 667                    |
| Samdrupjongkhar  | 6                             | 1                      | 216                    |
| Samtse           | 6                             | 4                      | 753                    |
| Sarpang          | 16                            | 9                      | 563                    |
| Trashigang       | 1                             | 0.5                    | 404                    |
| Trashiyangtse    | 2                             | 0.3                    | 190                    |
| Trongsa          | 0.2                           | 0.2                    | 760                    |
| Tsirang          | 0.3                           | 0.2                    | 641                    |
| Wangdue          | 1                             | 1                      | 808                    |
| Zhemgang         | 0.1                           | 0.3                    | 2,750                  |
| <b>Total</b>     | <b>45</b>                     | <b>26</b>              | <b>568</b>             |

**Table 56: Greenleaves harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 12                            | 11                     | 875                    |
| Chhukha          | 112                           | 199                    | 1,780                  |
| Dagana           | 238                           | 149                    | 627                    |
| Gasa             | 15                            | 17                     | 1,109                  |
| Haa              | 22                            | 39                     | 1,773                  |
| Lhuentse         | 119                           | 265                    | 2,221                  |
| Mongar           | 419                           | 122                    | 292                    |
| Paro             | 92                            | 68                     | 743                    |
| Pemagatshel      | 196                           | 121                    | 615                    |
| Punakha          | 161                           | 231                    | 1,430                  |
| Samdrupjongkhar  | 426                           | 373                    | 874                    |
| Samtse           | 269                           | 292                    | 1,084                  |
| Sarpang          | 152                           | 248                    | 1,634                  |
| Thimphu          | 100                           | 246                    | 2,458                  |
| Trashigang       | 313                           | 240                    | 767                    |
| Trashiyangtse    | 422                           | 970                    | 2,297                  |
| Trongsa          | 75                            | 143                    | 1,899                  |
| Tsirang          | 136                           | 120                    | 883                    |
| Wangdue          | 145                           | 235                    | 1,617                  |
| Zhemgang         | 67                            | 67                     | 998                    |
| <b>Total</b>     | <b>3,492</b>                  | <b>4,153</b>           | <b>1189</b>            |

**Table 57: Cucurbits Production (MT)**

| <b>Dzongkhag</b> | <b>Cucumber Production (MT)</b> | <b>Pumpkin Production (MT)</b> | <b>Squash Production (MT)</b> | <b>Gourd Production (MT)</b> |
|------------------|---------------------------------|--------------------------------|-------------------------------|------------------------------|
| Bumthang         | 4                               | 11                             | -                             | -                            |
| Chhukha          | 43                              | 137                            | 198                           | 22                           |
| Dagana           | 65                              | 162                            | 141                           | 7                            |
| Gasa             | 6                               | 3                              | 4                             | 0.01                         |
| Haa              | 18                              | 23                             | 22                            | 10                           |
| Lhuentse         | 219                             | 181                            | 152                           | 15                           |
| Mongar           | 131                             | 204                            | 43                            | 4                            |
| Paro             | 41                              | 67                             | 1                             | 5                            |
| Pemagatshel      | 82                              | 220                            | 61                            | 3                            |
| Punakha          | 384                             | 50                             | 98                            | 70                           |
| Samdrup-jongkhar | 152                             | 227                            | 107                           | 17                           |
| Samtse           | 89                              | 335                            | 328                           | 22                           |
| Sarpang          | 57                              | 131                            | 118                           | 42                           |
| Thimphu          | 7                               | 15                             | 1                             | 0.01                         |
| Trashigang       | 180                             | 169                            | 47                            | 6                            |
| Trashiyangtse    | 199                             | 491                            | 43                            | 17                           |
| Trongsa          | 56                              | 95                             | 31                            | 6                            |
| Tsirang          | 92                              | 430                            | 306                           | 26                           |
| Wangdue          | 98                              | 89                             | 34                            | 4                            |
| Zhemgang         | 25                              | 130                            | 21                            | 2                            |
| <b>Total</b>     | <b>1,948</b>                    | <b>3,171</b>                   | <b>1,755</b>                  | <b>278</b>                   |

**Table 58: Cultivated Mushroom Production (MT)**

| <b>Dzongkhag</b> | <b>Production (MT)</b> |
|------------------|------------------------|
| Bumthang         | 2                      |
| Chhukha          | 6                      |
| Dagana           | 4                      |
| Gasa             | 1                      |
| Haa              | 0.12                   |
| Lhuntse          | 3                      |
| Mongar           | 6                      |
| Paro             | 27                     |
| Pemagatsel       | 3                      |
| Punakha          | 2                      |
| Samdrup Jongkhar | 5                      |
| Samtse           | 0.48                   |
| Sarpang          | 2                      |
| Tashigang        | 19                     |
| Tashiyangtse     | 1                      |
| Thimphu          | 14                     |
| Trongsa          | 13                     |
| Tsirang          | 3                      |
| Wangdue          | 2                      |
| Zhemgang         | 8                      |
| <b>Total</b>     | <b>122</b>             |



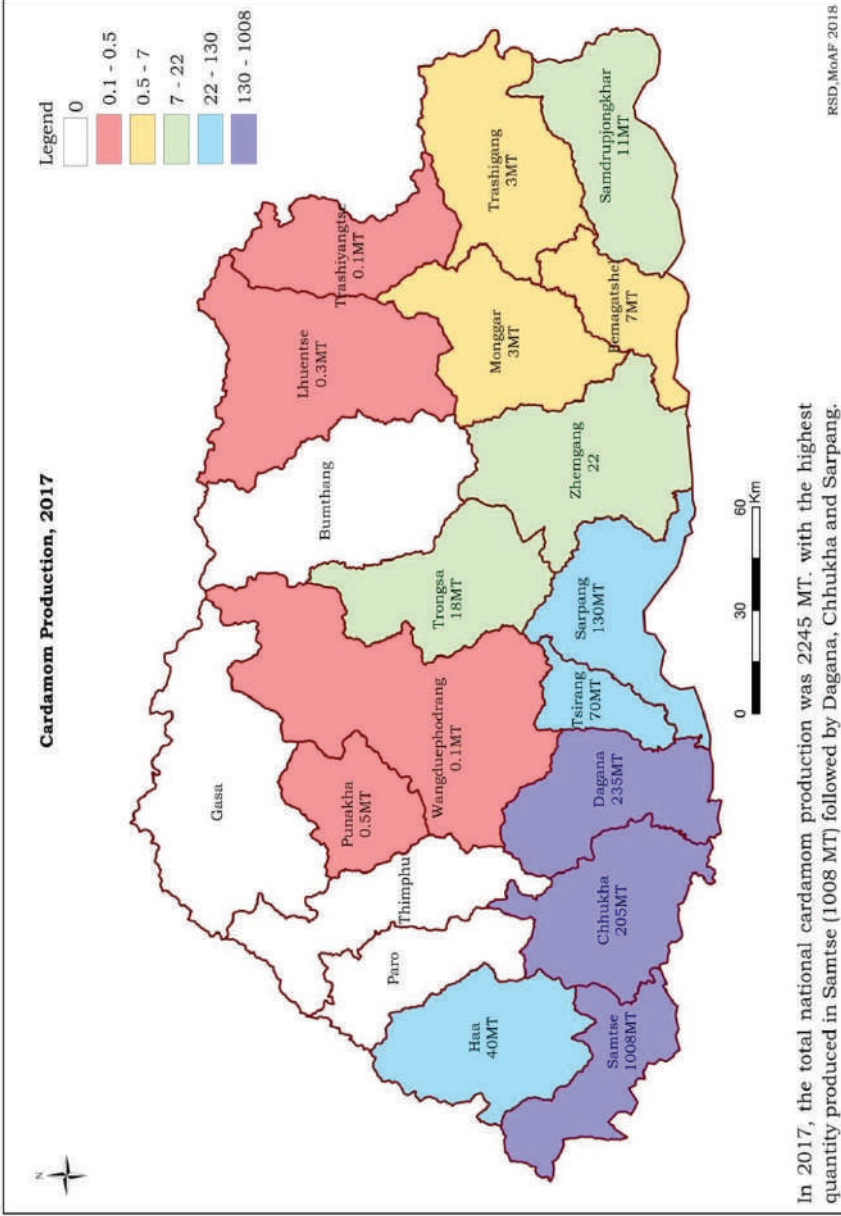
## 21. Spices

**Table 59: Ginger harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Bumthang        | 0.2                    | 0.4             | 2,176           |
| Chhukha         | 509                    | 832             | 1,633           |
| Dagana          | 162                    | 112             | 688             |
| Gasa            | 0.4                    | 1               | 1,611           |
| Haa             | 6                      | 2               | 352             |
| Lhuentse        | 15                     | 11              | 710             |
| Mongar          | 160                    | 37              | 233             |
| Paro            | 1                      | 0.3             | 400             |
| Pemagatshel     | 262                    | 362             | 1,381           |
| Punakha         | 32                     | 7               | 220             |
| Samdrupjongkhar | 847                    | 2,312           | 2,730           |
| Samtse          | 912                    | 2,950           | 3,235           |
| Sarpang         | 414                    | 677             | 1,636           |
| Thimphu         | -                      | -               |                 |
| Trashigang      | 42                     | 59              | 1,407           |
| Trashiyangtse   | 101                    | 40              | 395             |
| Trongsa         | 21                     | 32              | 1,535           |
| Tsirang         | 200                    | 222             | 1,110           |
| Wangdue         | 23                     | 24              | 1,048           |
| Zhemgang        | 102                    | 180             | 1,771           |
| <b>Total</b>    | <b>3,809</b>           | <b>7,859</b>    | <b>2,063</b>    |

**Table 60: Cardamom harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Chhukha          | 3,115                         | 205                    | 66                     |
| Dagana           | 1,743                         | 235                    | 135                    |
| Haa              | 1,023                         | 40                     | 39                     |
| Lhuentse         | 45                            | 0.3                    | 7                      |
| Mongar           | 159                           | 3                      | 21                     |
| Pemagatshel      | 336                           | 7                      | 21                     |
| Punakha          | 8                             | 0.5                    | 59                     |
| Samdrupjongkhar  | 168                           | 11                     | 67                     |
| Samtse           | 4,496                         | 1,008                  | 224                    |
| Sarpang          | 1,070                         | 130                    | 121                    |
| Trashigang       | 104                           | 3                      | 26                     |
| Trashiyangtse    | 59                            | 0.1                    | 1                      |
| Trongsa          | 342                           | 18                     | 51                     |
| Tsirang          | 780                           | 70                     | 90                     |
| Wangdue          | 14                            | 0.1                    | 6                      |
| Zhemgang         | 417                           | 22                     | 52                     |
| <b>Total</b>     | <b>13,880</b>                 | <b>2,245</b>           | <b>162</b>             |



In 2017, the total national cardamom production was 2245 MT, with the highest quantity produced in Samtse (1008 MT) followed by Dagana, Chhukha and Sarpang.

*Figure 13: Dzongkhag wise cardamom production in 2017*

## 22. Oil Seeds

**Table 61: Ground nut harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Dagana          | 3                      | 1               | 393             |
| Lhuentse        | 3                      | 2               | 635             |
| Mongar          | 30                     | 12              | 392             |
| Pemagatshel     | 91                     | 57              | 628             |
| Punakha         | 12                     | 25              | 2,098           |
| Samdrupjongkhar | 17                     | 1               | 81              |
| Samtse          | 1                      | 0.4             | 404             |
| Sarpang         | 0.2                    | 0.1             | 400             |
| Trashigang      | 114                    | 98              | 860             |
| Trashiyangtse   | 148                    | 46              | 313             |
| Tsirang         | 13                     | 3               | 197             |
| Wangdue         | 0.1                    | 0.03            | 273             |
| Zhemgang        | 3                      | 1               | 198             |
| <b>Total</b>    | <b>436</b>             | <b>246</b>      | <b>565</b>      |

**Table 62: Sunflower harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Bumthang        | 3                      | 0.3             | 120             |
| Dagana          | 4                      | 0.4             | 91              |
| Mongar          | 5                      | 1               | 128             |
| Pemagatshel     | 0.3                    | 0.2             | 600             |
| Samdrupjongkhar | 2                      | 0.04            | 23              |
| Samtse          | 0.2                    | 0.03            | 150             |
| Sarpang         | 6                      | 0.4             | 70              |
| Trashigang      | 3                      | 1               | 317             |
| Tsirang         | 1                      | 0.1             | 208             |
| Wangdue         | 0.1                    | 0.01            | 200             |
| <b>Total</b>    | <b>23</b>              | <b>3</b>        | <b>138</b>      |

**Table 63: Mustard harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Bumthang         | 20                            | 4                      | 181                    |
| Chhukha          | 341                           | 106                    | 310                    |
| Dagana           | 357                           | 108                    | 303                    |
| Gasa             | 5                             | 2                      | 407                    |
| Haa              | 32                            | 10                     | 303                    |
| Lhuentse         | 39                            | 19                     | 476                    |
| Mongar           | 140                           | 30                     | 213                    |
| Paro             | 151                           | 30                     | 202                    |
| Pemagatshel      | 54                            | 13                     | 241                    |
| Punakha          | 87                            | 27                     | 309                    |
| Samdrupjongkhar  | 396                           | 192                    | 485                    |
| Samtse           | 397                           | 235                    | 592                    |
| Sarpang          | 226                           | 59                     | 261                    |
| Thimphu          | 7                             | 3                      | 476                    |
| Trashigang       | 108                           | 44                     | 406                    |
| Trashiyangtse    | 24                            | 4                      | 153                    |
| Trongsa          | 34                            | 8                      | 247                    |
| Tsirang          | 103                           | 30                     | 288                    |
| Wangdue          | 120                           | 30                     | 251                    |
| Zhemgang         | 56                            | 16                     | 278                    |
| <b>Total</b>     | <b>2,697</b>                  | <b>969</b>             | <b>359</b>             |

**Table 64: Soyabean harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Chhukha          | 16                            | 3                      | 155                    |
| Dagana           | 18                            | 4                      | 253                    |
| Haa              | 3                             | 2                      | 549                    |
| Lhuentse         | 98                            | 35                     | 362                    |
| Mongar           | 107                           | 35                     | 329                    |
| Paro             | 2                             | 1                      | 326                    |
| Pemagatshel      | 170                           | 31                     | 184                    |
| Punakha          | 5                             | 1                      | 245                    |
| Samdrupjongkhar  | 81                            | 8                      | 104                    |
| Samtse           | 25                            | 9                      | 348                    |
| Sarpang          | 16                            | 3                      | 169                    |
| Trashigang       | 89                            | 32                     | 359                    |
| Trashiyangtse    | 157                           | 23                     | 149                    |
| Tsirang          | 44                            | 9                      | 205                    |
| Wangdue          | 1                             | 0.1                    | 192                    |
| Zhemgang         | 37                            | 7                      | 188                    |
| <b>Total</b>     | <b>867</b>                    | <b>204</b>             | <b>235</b>             |

**Table 65: Pyrilla (Naam) harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Chhukha         | 0.39                   | 0.03            | 77              |
| Dagana          | 4                      | 1               | 186             |
| Haa             | 14                     | 3               | 210             |
| Lhuentse        | 3                      | 0.3             | 130             |
| Mongar          | 5                      | 0.4             | 89              |
| Pemagatshel     | 79                     | 15              | 197             |
| Punakha         | 10                     | 1               | 125             |
| Samdrupjongkhar | 112                    | 83              | 742             |
| Samtse          | 2                      | 1               | 647             |
| Sarpang         | 3                      | 0.4             | 116             |
| Trashigang      | 5                      | 1               | 114             |
| Trashiyangtse   | 0.4                    | 0.01            | 25              |
| Trongsa         | 2                      | 0.3             | 121             |
| Tsirang         | 6                      | 1               | 106             |
| Zhemgang        | 3                      | 1               | 263             |
| <b>Total</b>    | <b>249</b>             | <b>108</b>      | <b>435</b>      |

**Table 66: Niger harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Dagana          | 1                      | 0.3             | 199             |
| Mongar          | 3                      | 1               | 156             |
| Punakha         | 0.3                    | 0.1             | 235             |
| Samdrupjongkhar | 8                      | 2               | 293             |
| Samtse          | 4                      | 1               | 339             |
| Sarpang         | 0.2                    | 0.03            | 200             |
| Trashigang      | 13                     | 1               | 78              |
| Trongsa         | 0.2                    | 0.1             | 391             |
| Tsirang         | 7                      | 0.4             | 63              |
| <b>Total</b>    | <b>37</b>              | <b>6</b>        | <b>164</b>      |

## 23. Legumes and Pulses

**Table 67: Rajma bean harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield Kg/Acre) |
|-----------------|------------------------|-----------------|----------------|
| Chhukha         | 68                     | 12              | 172            |
| Dagana          | 453                    | 152             | 337            |
| Haa             | 4                      | 2               | 608            |
| Lhuentse        | 4                      | 3               | 769            |
| Mongar          | 702                    | 403             | 574            |
| Pemagatshel     | 47                     | 31              | 670            |
| Punakha         | 1                      | 1               | 589            |
| Samdrupjongkhar | 223                    | 71              | 320            |
| Samtse          | 27                     | 16              | 607            |
| Sarpang         | 107                    | 26              | 240            |
| Trashigang      | 386                    | 141             | 366            |
| Trashiyangtse   | 52                     | 10              | 192            |
| Trongsa         | 0.04                   | 0.03            | 750            |
| Tsirang         | 161                    | 62              | 387            |
| Zhemgang        | 3                      | 0.5             | 184            |
| <b>Total</b>    | <b>2,236</b>           | <b>932</b>      | <b>417</b>     |



**Table 68: Mung bean harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Chhukha          | 27                            | 5                      | 192                    |
| Dagana           | 234                           | 79                     | 337                    |
| Haa              | 0.3                           | 0.3                    | 848                    |
| Lhuentse         | 3                             | 3                      | 1,056                  |
| Mongar           | 86                            | 43                     | 500                    |
| Pemagatshel      | 73                            | 12                     | 160                    |
| Samdrupjongkhar  | 89                            | 12                     | 140                    |
| Samtse           | 29                            | 7                      | 247                    |
| Sarpang          | 247                           | 75                     | 303                    |
| Trashigang       | 25                            | 14                     | 577                    |
| Trashiyangtse    | 19                            | 5                      | 245                    |
| Tsirang          | 90                            | 43                     | 478                    |
| <b>Total</b>     | <b>922</b>                    | <b>298</b>             | <b>323</b>             |

## 24. Roots and Tubers

**Table 69: Sweet Potato harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| Dzongkhag       | Harvested Area (Acres) | Production (MT) | Yield (Kg/Acre) |
|-----------------|------------------------|-----------------|-----------------|
| Chhukha         | 1                      | 1               | 855             |
| Dagana          | 13                     | 3               | 248             |
| Haa             | 0.1                    | 0.1             | 1,300           |
| Lhuentse        | 1                      | 1               | 1,986           |
| Mongar          | 12                     | 8               | 632             |
| Pemagatshel     | 14                     | 7               | 498             |
| Punakha         | 11                     | 2               | 204             |
| Samdrupjongkhar | 38                     | 4               | 94              |
| Samtse          | 11                     | 5               | 512             |
| Sarpang         | 14                     | 4               | 286             |
| Trashigang      | 20                     | 12              | 625             |
| Trashiyangtse   | 43                     | 9               | 205             |
| Trongsa         | 1                      | 0.4             | 691             |
| Tsirang         | 16                     | 18              | 1,114           |
| Wangdue         | 5                      | 0.2             | 49              |
| Zhemgang        | 5                      | 5               | 1,079           |
| <b>Total</b>    | <b>203</b>             | <b>80</b>       | <b>394</b>      |

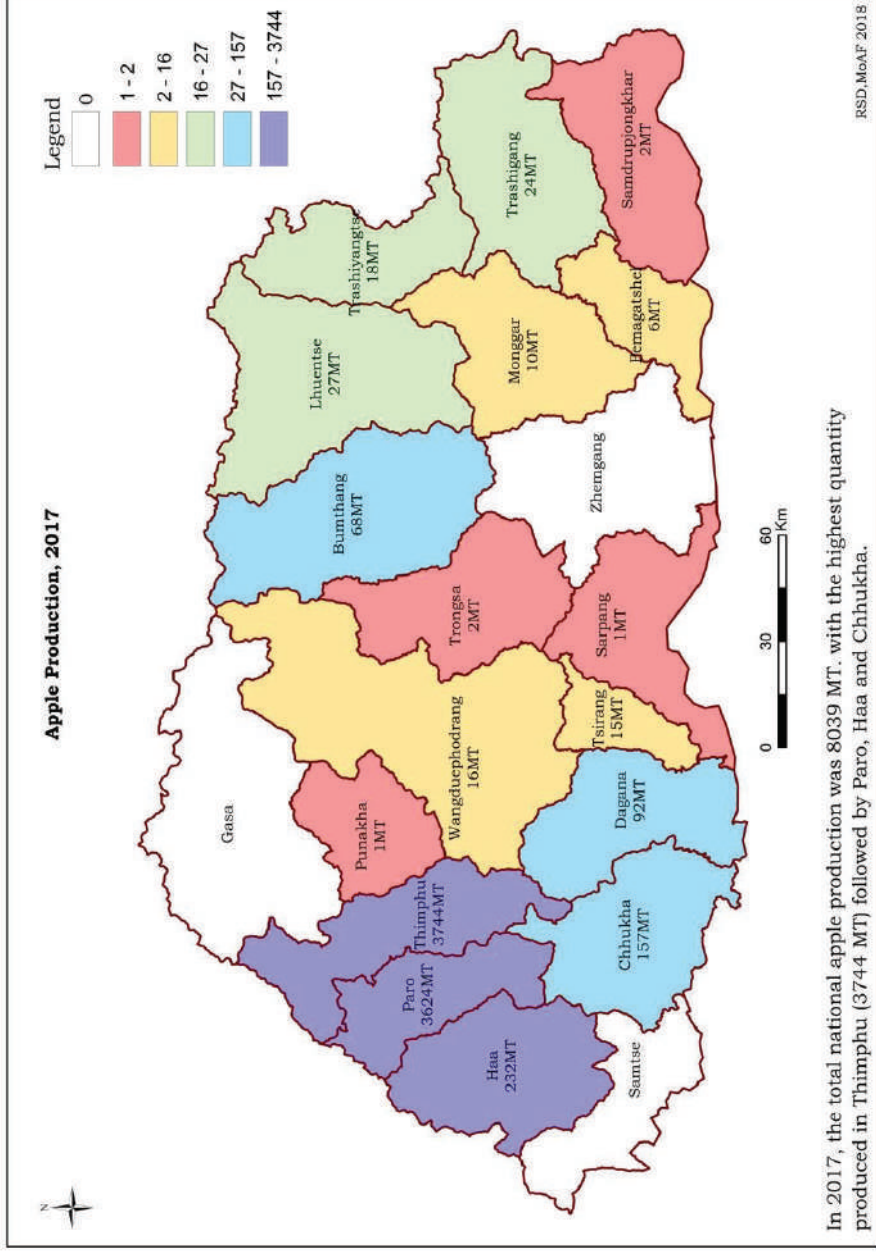
**Table 70: Tapioca harvested area (Acres), Production (MT) and Yield (Kg/Acre)**

| <b>Dzongkhag</b> | <b>Harvested Area (Acres)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Acre)</b> |
|------------------|-------------------------------|------------------------|------------------------|
| Chhukha          | 39                            | 27                     | 709                    |
| Dagana           | 38                            | 31                     | 822                    |
| Haa              | 1                             | 1                      | 975                    |
| Lhuentse         | 0.2                           | 0.1                    | 667                    |
| Mongar           | 6                             | 6                      | 954                    |
| Pemagatshel      | 24                            | 25                     | 1,065                  |
| Punakha          | 0.5                           | 1                      | 1,489                  |
| Samdrupjongkhar  | 86                            | 34                     | 401                    |
| Samtse           | 67                            | 119                    | 1,769                  |
| Sarpang          | 17                            | 13                     | 786                    |
| Trashigang       | 5                             | 3                      | 567                    |
| Trashiyangtse    | 17                            | 8                      | 472                    |
| Tsirang          | 17                            | 32                     | 1,893                  |
| Wangdue          | 2                             | 4                      | 2,042                  |
| Zhemgang         | 1                             | 2                      | 1,602                  |
| <b>Total</b>     | <b>320</b>                    | <b>306</b>             | <b>959</b>             |

## 19. Horticulture Fruit Crop Production

**Table 71: Apple Production and Yield**

| Dzongkhag        | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|------------------|------------------|--------------------|-----------------|-------------------------|
| Bumthang         | 3,912            | 3,461              | 68              | 20                      |
| Chhukha          | 4,893            | 3,910              | 157             | 40                      |
| Dagana           | 5,770            | 5,564              | 92              | 17                      |
| Gasa             | 21               | 21                 | 0.2             | 9                       |
| Haa              | 22,161           | 18,448             | 232             | 13                      |
| Lhuentse         | 2,041            | 706                | 27              | 39                      |
| Mongar           | 1,768            | 583                | 10              | 17                      |
| Paro             | 166,682          | 132,895            | 3,624           | 27                      |
| Pemagatshel      | 871              | 306                | 6               | 18                      |
| Punakha          | 96               | 71                 | 1               | 11                      |
| Samdrup Jongkhar | 4,420            | 250                | 2               | 9                       |
| Samtse           | 5                | 5                  | 0.0             | 1                       |
| Sarpang          | 100              | 100                | 1               | 10                      |
| Thimphu          | 97,522           | 88,082             | 3744            | 43                      |
| Trashigang       | 2,075            | 837                | 24              | 28                      |
| Trashiyangtse    | 6,790            | 1,203              | 18              | 15                      |
| Trongsa          | 185              | 168                | 2               | 15                      |
| Tsirang          | 617              | 495                | 15              | 30                      |
| Wangdue          | 1,998            | 1,110              | 16              | 15                      |
| <b>Total</b>     | <b>321,928</b>   | <b>258,215</b>     | <b>8,039</b>    | <b>31</b>               |

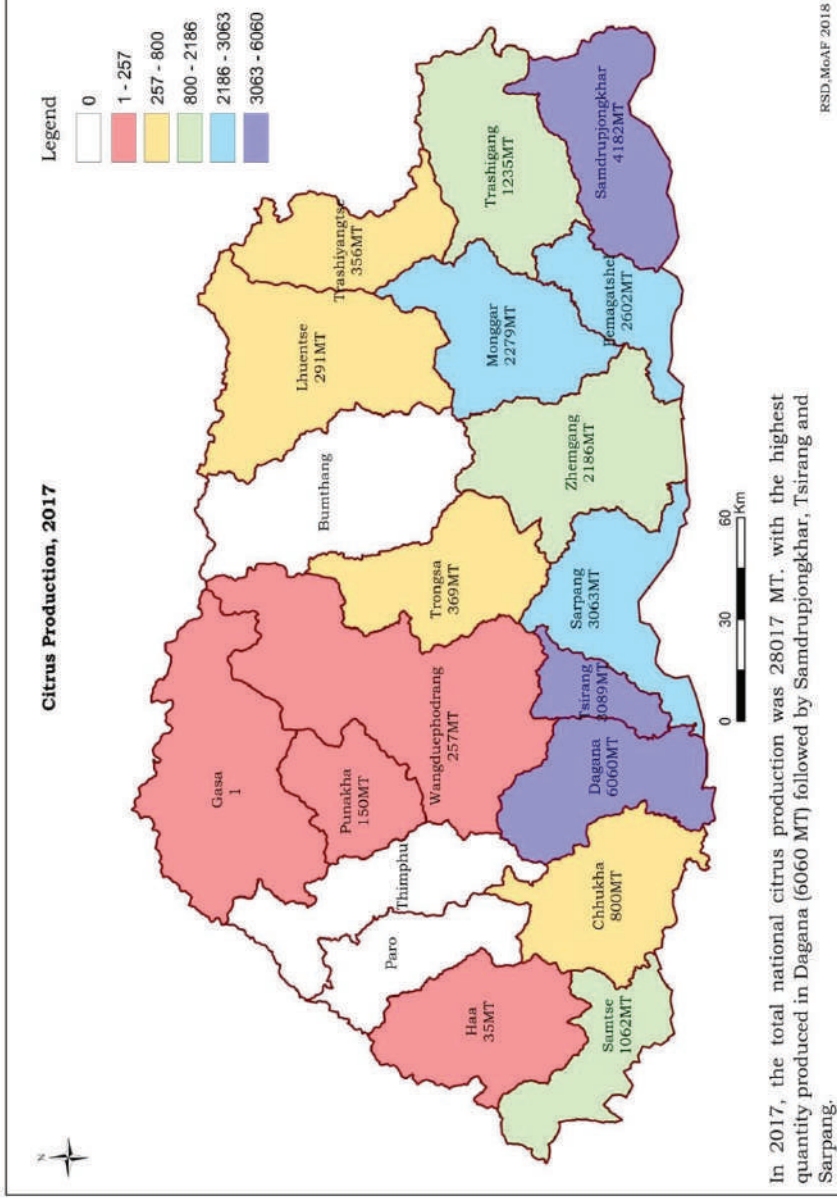


In 2017, the total national apple production was 8039 MT, with the highest quantity produced in Thimphu (3744 MT) followed by Paro, Haa and Chhukha.

**Figure 14: Dzongkhag wise apple production in 2017**

**Table 72: Mandarin Production and Yield**

| Dzongkhag        | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|------------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha          | 72,730           | 42,492             | 800             | 19                      |
| Dagana           | 227,563          | 154,380            | 6,060           | 39                      |
| Gasa             | 80               | 77                 | 1               | 10                      |
| Haa              | 1,399            | 797                | 35              | 44                      |
| Lhuentse         | 13,012           | 4,887              | 291             | 60                      |
| Mongar           | 119,147          | 35,743             | 2,279           | 64                      |
| Pemagatshel      | 238,972          | 141,616            | 2,602           | 18                      |
| Punakha          | 22,062           | 16,489             | 150             | 9                       |
| Samdrup Jongkhar | 260,141          | 113,832            | 4,182           | 37                      |
| Samtse           | 69,947           | 36,137             | 1,062           | 29                      |
| Sarpang          | 166,077          | 143,526            | 3,063           | 21                      |
| Trashigang       | 45,896           | 15,261             | 1,235           | 81                      |
| Trashiyangtse    | 25,572           | 9,000              | 356             | 40                      |
| Trongsa          | 20,282           | 9,431              | 369             | 39                      |
| Tsirang          | 126,868          | 79,837             | 3,089           | 39                      |
| Wangdue          | 10,089           | 5,761              | 257             | 45                      |
| Zhemgang         | 119,239          | 55,343             | 2,186           | 39                      |
| <b>Total</b>     | <b>1,539,076</b> | <b>864,608</b>     | <b>28,017</b>   | <b>32</b>               |



**Figure 15: Dzongkhag wise Citrus production in 2017**

**Table 73: Areca nut Production and Yield**

| Dzongkhag        | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|------------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha          | 89,158           | 63,269             | 450             | 7                       |
| Dagana           | 156,405          | 73,969             | 832             | 11                      |
| Mongar           | 3,840            | 1,386              | 13              | 9                       |
| Pemagatshel      | 16,777           | 5,141              | 36              | 7                       |
| Samdrup Jongkhar | 103,837          | 60,033             | 1,061           | 18                      |
| Samtse           | 493,586          | 248,541            | 3,760           | 15                      |
| Sarpang          | 807,471          | 440,839            | 3,146           | 7                       |
| Tsirang          | 428              | 138                | 13              | 94                      |
| Wangdue          | 2                | 2                  | 0.1             | 60                      |
| Zhemgang         | 6,817            | 2,261              | 31              | 14                      |
| <b>Total</b>     | <b>1,678,321</b> | <b>895,579</b>     | <b>9,342</b>    | <b>10</b>               |

**25. Other Fruit Crops****Table 74: Mango Production and Yield**

| Dzongkhag       | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|-----------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha         | 509              | 264                | 4               | 17                      |
| Dagana          | 4,833            | 1,669              | 44              | 26                      |
| Lhuentse        | 2,142            | 1,638              | 27              | 17                      |
| Mongar          | 4,258            | 2,151              | 76              | 36                      |
| Pemagatshel     | 7,608            | 2,083              | 32              | 15                      |
| Punakha         | 934              | 703                | 17              | 23                      |
| Samdrupjongkhar | 4,582            | 1,852              | 31              | 17                      |
| Samtse          | 1,584            | 850                | 36              | 42                      |
| Sarpang         | 2,558            | 1,816              | 91              | 50                      |
| Trashigang      | 2,200            | 1,068              | 45              | 43                      |
| Trashiyangtse   | 902              | 271                | 4               | 16                      |
| Trongsa         | 581              | 415                | 16              | 38                      |
| Tsirang         | 3,542            | 1,606              | 88              | 55                      |
| Wangdue         | 146              | 108                | 2               | 22                      |
| Zhemgang        | 1,932            | 779                | 16              | 21                      |
| <b>Total</b>    | <b>38,311</b>    | <b>17,273</b>      | <b>530</b>      | <b>31</b>               |



**Table 75: Pear Production and Yield**

| Dzongkhag        | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|------------------|------------------|--------------------|-----------------|-------------------------|
| Bumthang         | 155              | 150                | 3               | 23                      |
| Chhukha          | 766              | 622                | 31              | 50                      |
| Dagana           | 1,548            | 1,381              | 129             | 93                      |
| Gasa             | 403              | 294                | 2               | 6                       |
| Haa              | 137              | 138                | 2               | 16                      |
| Lhuentse         | 1,831            | 852                | 128             | 150                     |
| Mongar           | 7,195            | 3,584              | 114             | 32                      |
| Paro             | 1,154            | 994                | 44              | 44                      |
| Pemagatshel      | 707              | 395                | 10              | 25                      |
| Punakha          | 2,775            | 2,226              | 90              | 40                      |
| Samdrup Jongkhar | 2,060            | 1,680              | 141             | 84                      |
| Samtse           | 1,190            | 896                | 31              | 34                      |
| Sarpang          | 2,741            | 2,678              | 219             | 82                      |
| Thimphu          | 287              | 256                | 8               | 33                      |
| Trashigang       | 6,211            | 3,998              | 223             | 56                      |
| Trashiyangtse    | 2,598            | 1,486              | 41              | 28                      |
| Trongsa          | 574              | 471                | 9               | 20                      |
| Tsirang          | 1,440            | 1,350              | 252             | 187                     |
| Wangdue          | 1,213            | 868                | 31              | 36                      |
| Zhemgang         | 158              | 104                | 3               | 27                      |
| <b>Total</b>     | <b>35,141</b>    | <b>24,423</b>      | <b>1,510</b>    | <b>62</b>               |

**Table 76: Peach Production and Yield**

| Dzongkhag        | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|------------------|------------------|--------------------|-----------------|-------------------------|
| Bumthang         | 214              | 189                | 3               | 15                      |
| Chhukha          | 1,456            | 1,261              | 18              | 15                      |
| Dagana           | 1,534            | 1,276              | 46              | 36                      |
| Gasa             | 114              | 101                | 1               | 12                      |
| Haa              | 163              | 151                | 4               | 29                      |
| Lhuentse         | 3,760            | 2,334              | 258             | 111                     |
| Mongar           | 3,930            | 3,128              | 81              | 26                      |
| Paro             | 2,178            | 2,100              | 77              | 37                      |
| Pemagatshel      | 3,323            | 2,150              | 91              | 43                      |
| Punakha          | 2,034            | 1,664              | 45              | 27                      |
| Samdrup Jongkhar | 1,626            | 1,547              | 75              | 48                      |
| Samtse           | 972              | 885                | 26              | 29                      |
| Sarpang          | 680              | 582                | 34              | 58                      |
| Thimphu          | 424              | 413                | 15              | 36                      |
| Trashigang       | 2,900            | 2,500              | 102             | 41                      |
| Trashiyangtse    | 3,065            | 2,380              | 99              | 42                      |
| Trongsa          | 893              | 683                | 13              | 19                      |
| Tsirang          | 1,398            | 1,201              | 88              | 74                      |
| Wangdue          | 1,304            | 971                | 29              | 30                      |
| Zhemgang         | 507              | 350                | 18              | 52                      |
| <b>Total</b>     | <b>32,472</b>    | <b>25,865</b>      | <b>1,124</b>    | <b>43</b>               |

**Table 77: Plum Production and Yield**

| Dzongkhag        | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|------------------|------------------|--------------------|-----------------|-------------------------|
| Bumthang         | 187              | 178                | 3               | 15                      |
| Chhukha          | 118              | 95                 | 3               | 33                      |
| Dagana           | 1,335            | 1,080              | 42              | 39                      |
| Gasa             | 15               | 15                 | 0               | 8                       |
| Haa              | 69               | 69                 | 2               | 30                      |
| Lhuentse         | 1,310            | 962                | 77              | 80                      |
| Mongar           | 1,619            | 1,336              | 66              | 49                      |
| Paro             | 285              | 275                | 9               | 33                      |
| Pemagatshel      | 747              | 589                | 28              | 47                      |
| Punakha          | 664              | 609                | 16              | 26                      |
| Samdrup Jongkhar | 878              | 800                | 50              | 63                      |
| Samtse           | 243              | 184                | 4               | 21                      |
| Sarpang          | 301              | 267                | 11              | 41                      |
| Thimphu          | 173              | 171                | 6               | 33                      |
| Trashigang       | 1,371            | 1,132              | 74              | 66                      |
| Trashiyangtse    | 766              | 589                | 22              | 37                      |
| Trongsa          | 180              | 135                | 4               | 33                      |
| Tsirang          | 819              | 754                | 56              | 74                      |
| Wangdue          | 198              | 139                | 4               | 30                      |
| Zhemgang         | 458              | 192                | 6               | 33                      |
| <b>Total</b>     | <b>11,735</b>    | <b>9,571</b>       | <b>482</b>      | <b>50</b>               |

**Table 78: Walnut Production and Yield**

| Dzongkhag        | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|------------------|------------------|--------------------|-----------------|-------------------------|
| Bumthang         | 330              | 293                | 2               | 6                       |
| Chhukha          | 244              | 150                | 3               | 20                      |
| Dagana           | 991              | 365                | 10              | 28                      |
| Haa              | 404              | 344                | 5               | 14                      |
| Lhuentse         | 638              | 395                | 39              | 99                      |
| Mongar           | 1,641            | 898                | 30              | 33                      |
| Paro             | 1,885            | 1,540              | 27              | 18                      |
| Pemagatshel      | 433              | 409                | 7               | 18                      |
| Punakha          | 1,658            | 971                | 12              | 12                      |
| Samdrup Jongkhar | 75               | 65                 | 1               | 22                      |
| Sarpang          | 911              | 828                | 10              | 12                      |
| Thimphu          | 360              | 350                | 5               | 15                      |
| Trashigang       | 2,422            | 1,497              | 43              | 29                      |
| Trashiyangtse    | 1,337            | 858                | 16              | 19                      |
| Trongsa          | 1,072            | 514                | 11              | 22                      |
| Tsirang          | 108              | 64                 | 4               | 63                      |
| Wangdue          | 658              | 539                | 2               | 5                       |
| Zhemgang         | 876              | 568                | 11              | 19                      |
| <b>Total</b>     | <b>16,042</b>    | <b>10,646</b>      | <b>239</b>      | <b>22</b>               |

**Table 79: Jack Fruit Production and Yield**

| Dzongkhag        | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|------------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha          | 127              | 66                 | 10              | 159                     |
| Dagana           | 330              | 279                | 44              | 158                     |
| Mongar           | 153              | 148                | 107             | 722                     |
| Pemagatshel      | 971              | 472                | 52              | 110                     |
| Punakha          | 15               | 15                 | 1               | 73                      |
| Samdrup Jongkhar | 657              | 500                | 71              | 142                     |
| Samtse           | 810              | 606                | 63              | 104                     |
| Sarpang          | 728              | 613                | 135             | 220                     |
| Trashigang       | 20               | 20                 | 3               | 128                     |
| Trashiyangtse    | 5                | 5                  | 1               | 100                     |
| Trongsa          | 10               | 10                 | 0.5             | 49                      |
| Tsirang          | 248              | 161                | 24              | 146                     |
| Wangdue          | 3                | 3                  | 0.1             | 40                      |
| Zhemgang         | 220              | 191                | 18              | 92                      |
| <b>Total</b>     | <b>4,297</b>     | <b>3,088</b>       | <b>528</b>      | <b>171</b>              |

**Table 80: Guava Production and Yield**

| Dzongkhag        | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|------------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha          | 831              | 766                | 12              | 16                      |
| Dagana           | 3,978            | 3,402              | 90              | 26                      |
| Haa              | 10               | 10                 | 0               | 5                       |
| Lhuentse         | 606              | 538                | 26              | 48                      |
| Mongar           | 3,359            | 2,855              | 81              | 29                      |
| Pemagatshel      | 4,586            | 3,002              | 108             | 36                      |
| Punakha          | 8,064            | 7,079              | 156             | 22                      |
| Samdrup Jongkhar | 2,721            | 2,179              | 52              | 24                      |
| Samtse           | 4,331            | 3,289              | 72              | 22                      |
| Sarpang          | 2,889            | 2,454              | 97              | 40                      |
| Trashigang       | 1,857            | 1,618              | 47              | 29                      |
| Trashiyangtse    | 1,333            | 972                | 30              | 31                      |
| Trongsa          | 2,093            | 1,740              | 91              | 52                      |
| Tsirang          | 4,767            | 3,924              | 163             | 42                      |
| Wangdue          | 1,855            | 1,549              | 38              | 25                      |
| Zhemgang         | 1,414            | 812                | 20              | 25                      |
| <b>Total</b>     | <b>44,694</b>    | <b>36,189</b>      | <b>1,084</b>    | <b>30</b>               |

**Table 81: Papaya Production and Yield**

| <b>Dzongkhag</b> | <b>Total Tree (Nos)</b> | <b>Bearing Tree (Nos)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Bearing Tree)</b> |
|------------------|-------------------------|---------------------------|------------------------|--------------------------------|
| Chhukha          | 39                      | 33                        | 2                      | 57                             |
| Dagana           | 964                     | 747                       | 17                     | 22                             |
| Lhuentse         | 13                      | 13                        | 0.2                    | 15                             |
| Mongar           | 711                     | 664                       | 11                     | 17                             |
| Pemagatshel      | 355                     | 306                       | 16                     | 54                             |
| Punakha          | 166                     | 155                       | 3                      | 21                             |
| Samdrupjongkhar  | 793                     | 588                       | 20                     | 34                             |
| Samtse           | 579                     | 486                       | 9                      | 18                             |
| Sarpang          | 2,157                   | 1,959                     | 44                     | 23                             |
| Trashigang       | 225                     | 191                       | 6                      | 29                             |
| Trashiyangtse    | 532                     | 371                       | 3                      | 8                              |
| Trongsa          | 151                     | 105                       | 5                      | 43                             |
| Tsirang          | 3,157                   | 2,135                     | 141                    | 66                             |
| Wangdue          | 67                      | 59                        | 0.5                    | 8                              |
| Zhemgang         | 41                      | 38                        | 1                      | 19                             |
| <b>Total</b>     | <b>9,949</b>            | <b>7,853</b>              | <b>278</b>             | <b>35</b>                      |

**Table 82: Pomegranate Production and Yield**

| Dzongkhag       | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|-----------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha         | 22               | 22                 | 0               | 9                       |
| Dagana          | 974              | 619                | 7               | 11                      |
| Gasa            | 4                | 4                  | 0               | 15                      |
| Lhuentse        | 189              | 179                | 4               | 22                      |
| Mongar          | 691              | 599                | 12              | 20                      |
| Paro            | 82               | 74                 | 2               | 22                      |
| Pemagatshel     | 461              | 196                | 2               | 12                      |
| Punakha         | 546              | 496                | 10              | 21                      |
| Samdrupjongkhar | 244              | 167                | 1               | 7                       |
| Samtse          | 129              | 118                | 1               | 9                       |
| Sarpang         | 92               | 86                 | 2               | 20                      |
| Trashigang      | 518              | 483                | 8               | 16                      |
| Trashiyangtse   | 423              | 284                | 5               | 17                      |
| Trongsa         | 285              | 235                | 6               | 24                      |
| Tsirang         | 769              | 549                | 6               | 11                      |
| Wangdue         | 380              | 293                | 6               | 22                      |
| Zhemgang        | 210              | 96                 | 1               | 13                      |
| <b>Total</b>    | <b>6,019</b>     | <b>4,500</b>       | <b>74</b>       | <b>16</b>               |



**Table 83: Litchi Production and Yield**

| Dzongkhag       | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|-----------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha         | 915              | 274                | 9               | 34                      |
| Dagana          | 2,592            | 846                | 19              | 23                      |
| Mongar          | 2,493            | 170                | 1               | 7                       |
| Pemagatshel     | 8,761            | 235                | 4               | 16                      |
| Punakha         | 8                | 6                  | 0.2             | 40                      |
| Samdrupjongkhar | 9,267            | 551                | 6               | 11                      |
| Samtse          | 4,320            | 1,685              | 55              | 33                      |
| Sarpang         | 11,995           | 6,500              | 216             | 33                      |
| Trashiyangtse   | 55               |                    |                 |                         |
| Trongsa         | 10               |                    |                 |                         |
| Tsirang         | 2,715            | 175                | 2               | 9                       |
| Wangdue         | 17               |                    |                 |                         |
| Zhemgang        | 928              | 13                 | 0               | 13                      |
| <b>Total</b>    | <b>44,076</b>    | <b>10,456</b>      | <b>313</b>      | <b>30</b>               |

**Table 84: Persimmon Production and Yield**

| Dzongkhag       | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|-----------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha         | 51               | 25                 | 1               | 42                      |
| Dagana          | 5                | 5                  | 0.0             | 10                      |
| Gasa            | 64               | 64                 | 1               | 19                      |
| Haa             | 13               | 13                 | 0.1             | 7                       |
| Lhuentse        | 92               | 73                 | 9               | 130                     |
| Mongar          | 651              | 326                | 11              | 34                      |
| Paro            | 344              | 290                | 12              | 43                      |
| Pemagatshel     | 143              | 102                | 1               | 9                       |
| Punakha         | 1,472            | 1,310              | 40              | 31                      |
| Samdrupjongkhar | 96               | 96                 | 2               | 18                      |
| Samtse          | 28               | 28                 | 0.5             | 16                      |
| Sarpang         | 14               | 14                 | 0.2             | 15                      |
| Thimphu         | 8                | 8                  | 0.5             | 57                      |
| Trashigang      | 854              | 693                | 20              | 30                      |
| Trashiyangtse   | 160              | 58                 | 0.3             | 5                       |
| Trongsa         | 200              | 190                | 4               | 23                      |
| Tsirang         | 19               | 19                 | 0.2             | 11                      |
| Wangdue         | 1,400            | 974                | 47              | 49                      |
| Zhemgang        | 17               | 17                 | 1               | 30                      |
| <b>Total</b>    | <b>5,632</b>     | <b>4,305</b>       | <b>152</b>      | <b>35</b>               |

**Table 85:Banana Production and Yield**

| <b>Dzongkhag</b> | <b>Total Tree (Nos)</b> | <b>Bearing Tree (Nos)</b> | <b>Production (MT)</b> | <b>Yield (Kg/Bearing Tree)</b> |
|------------------|-------------------------|---------------------------|------------------------|--------------------------------|
| Chhukha          | 8,905                   | 3,671                     | 73                     | 20                             |
| Dagana           | 52,230                  | 31,050                    | 479                    | 15                             |
| Haa              | 742                     | 758                       | 11                     | 14                             |
| Lhuentse         | 3,261                   | 1,046                     | 52                     | 50                             |
| Mongar           | 15,975                  | 8,374                     | 94                     | 11                             |
| Pemagatshel      | 34,046                  | 8,238                     | 148                    | 18                             |
| Punakha          | 4,041                   | 1,623                     | 28                     | 18                             |
| Samdrupjongkhar  | 45,064                  | 9,852                     | 387                    | 39                             |
| Samtse           | 99,266                  | 29,281                    | 519                    | 18                             |
| Sarpang          | 55,913                  | 28,099                    | 541                    | 19                             |
| Trashigang       | 20,801                  | 3,355                     | 51                     | 15                             |
| Trashiyangtse    | 7,914                   | 3,581                     | 41                     | 11                             |
| Trongsa          | 9,624                   | 4,565                     | 109                    | 24                             |
| Tsirang          | 83,169                  | 18,309                    | 382                    | 21                             |
| Wangdue          | 4,269                   | 1,699                     | 37                     | 22                             |
| Zhemgang         | 13,431                  | 7,498                     | 160                    | 21                             |
| <b>Total</b>     | <b>458,651</b>          | <b>161,000</b>            | <b>3,113</b>           | <b>19</b>                      |

**Table 86: Date Plum (Gendum) Production and Yield**

| Dzongkhag       | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|-----------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha         | 25               | 25                 | 0.362           | 14                      |
| Dagana          | 10               | 5                  | 0.005           | 1                       |
| Gasa            | 64               | 64                 | 1               | 17                      |
| Haa             | 33               | 33                 | 0.31            | 9                       |
| Lhuentse        | 67               | 67                 | 5               | 80                      |
| Mongar          | 187              | 184                | 2               | 13                      |
| Paro            | 74               | 74                 | 1               | 19                      |
| Pemagatshel     | 3                | 3                  | 0.24            | 75                      |
| Punakha         | 138              | 134                | 3               | 19                      |
| Samdrupjongkhar | 93               | 93                 | 2               | 18                      |
| Samtse          | 226              | 219                | 4               | 19                      |
| Thimphu         | 5                | 5                  | 0.02            | 5                       |
| Trashigang      | 7                | 7                  | 0.01            | 2                       |
| Trashiyangtse   | 167              | 139                | 1               | 10                      |
| Trongsa         | 30               | 30                 | 0.38            | 13                      |
| Wangdue         | 49               | 46                 | 2               | 35                      |
| <b>Total</b>    | <b>1,177</b>     | <b>1,128</b>       | <b>23</b>       | <b>20</b>               |

**Table 87: Avocado Production and Yield**

| Dzongkhag       | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|-----------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha         | 44               | 44                 | 1               | 20                      |
| Dagana          | 296              | 246                | 3               | 12                      |
| Gasa            | 2                | 2                  | 0.03            | 15                      |
| Haa             | 3                | 3                  | 0.02            | 6                       |
| Mongar          | 1,242            | 195                | 9               | 46                      |
| Pemagatshel     | 449              | 257                | 11              | 43                      |
| Punakha         | 459              | 148                | 3               | 17                      |
| Samdrupjongkhar | 367              | 128                | 1               | 6                       |
| Samtse          | 143              | 37                 | 2               | 57                      |
| Sarpang         | 111              | 51                 | 1               | 14                      |
| Trashigang      | 10               | 10                 | 0.30            | 30                      |
| Trongsa         | 201              | 60                 | 2               | 33                      |
| Tsirang         | 190              | 66                 | 7               | 99                      |
| Wangdue         | 79               | 13                 | 0.12            | 9                       |
| Zhemgang        | 622              | 194                | 4               | 22                      |
| <b>Total</b>    | <b>4,219</b>     | <b>1,455</b>       | <b>43</b>       | <b>30</b>               |

**Table 88: Apricot Production and Yield**

| Dzongkhag       | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|-----------------|------------------|--------------------|-----------------|-------------------------|
| Dagana          | 19               | 15                 | 2               | 136                     |
| Lhuentse        | 3                | 3                  | 0.03            | 10                      |
| Mongar          | 8                | 8                  | 0.15            | 20                      |
| Paro            | 109              | 81                 | 3               | 34                      |
| Punakha         | 30               | 30                 | 1               | 23                      |
| Samdrupjongkhar | 15               | 15                 | 0.5             | 33                      |
| Sarpang         | 1,182            | 104                | 1               | 7                       |
| Thimphu         | 11               | 11                 | 0.19            | 17                      |
| Trashigang      | 20               | 13                 | 0.03            | 3                       |
| Trongsa         | 15               | 15                 | 0.20            | 13                      |
| Tsirang         | 18               | 18                 | 0.23            | 13                      |
| Wangdue         | 73               | 47                 | 1               | 14                      |
| <b>Total</b>    | <b>1,502</b>     | <b>360</b>         | <b>8</b>        | <b>23</b>               |

**Table 89: Tree Tomato Production and Yield**

| Dzongkhag       | Total Tree (Nos) | Bearing Tree (Nos) | Production (MT) | Yield (Kg/Bearing Tree) |
|-----------------|------------------|--------------------|-----------------|-------------------------|
| Chhukha         | 859              | 830                | 7               | 8                       |
| Dagana          | 3,263            | 2,855              | 22              | 8                       |
| Gasa            | 460              | 367                | 4               | 10                      |
| Haa             | 412              | 330                | 4               | 11                      |
| Lhuentse        | 4,078            | 3,920              | 87              | 22                      |
| Mongar          | 4,102            | 3,787              | 41              | 11                      |
| Pemagatshel     | 1,356            | 1,098              | 8               | 7                       |
| Punakha         | 8,610            | 6,747              | 63              | 9                       |
| Samdrupjongkhar | 1,390            | 1,327              | 19              | 14                      |
| Samtse          | 1,382            | 1,206              | 10              | 9                       |
| Sarpang         | 6,333            | 5,263              | 35              | 7                       |
| Trashigang      | 2,356            | 2,009              | 28              | 14                      |
| Trashiyangtse   | 2,144            | 1,740              | 17              | 10                      |
| Trongsa         | 1,008            | 1,003              | 10              | 10                      |
| Tsirang         | 5,217            | 4,403              | 27              | 6                       |
| Wangdue         | 2,094            | 1,787              | 14              | 8                       |
| Zhemgang        | 1,340            | 1,071              | 11              | 10                      |
| <b>Total</b>    | <b>46,405</b>    | <b>39,743</b>      | <b>404</b>      | <b>10</b>               |

**Table 90: Other Fruit Production (MT)**

| <b>Dzongkhag</b> | <b>Passion Fruit Production (MT)</b> | <b>Pineapple Production (MT)</b> |
|------------------|--------------------------------------|----------------------------------|
| Chhukha          | 3                                    | 3                                |
| Dagana           | 2                                    | 2                                |
| Gasa             | 0.1                                  |                                  |
| Haa              | 0.2                                  |                                  |
| Lhuentse         | 3                                    |                                  |
| Mongar           | 12                                   | 8                                |
| Pemagatshel      | 4                                    | 6                                |
| Punakha          | 2                                    |                                  |
| Samdrup Jongkhar | 11                                   | 6                                |
| Samtse           | 5                                    | 18                               |
| Sarpang          | 35                                   | 22                               |
| Trashigang       | 5                                    | 1                                |
| Trashiyangtse    | 0.2                                  |                                  |
| Trongsa          | 1                                    |                                  |
| Tsirang          | 9                                    | 5                                |
| Wangdue          | 0.1                                  |                                  |
| Zhemgang         | 0.78                                 | 1.5                              |
| <b>Total</b>     | <b>94.5</b>                          | <b>72.3</b>                      |



