



Analysis of major markets for RNR
commodities for the period:
January – June, 2020

July 2020



Marketing Information and Research Division
Department of Agricultural Marketing and Cooperatives
Ministry of Agriculture and Forests

1. Introduction

This report presents an analysis of market prices of the 20 Dzongkhags including the border towns- Phuentsholing, Gelephu and Nganglam. Most traded commodities of fruits, vegetables, dairy products and non-wood forest produces are covered in this study.

2. Results and Discussion

The report covers a period of six months starting from January to June 2020; and consists of two main parameters: (i) average (of all the markets) price change over the period, and (ii) price difference of a group of commodities (vegetable, spices, fruit, and non-wood forest products) between the selected markets. While information from all markets are available, some of the markets are very small in terms of volume traded and therefore excluded. The most traded produces are analyzed.

2.1. Price (average of all markets) change over time

Average price of apples and small chilies increases gradually over time (Fig.1) and (Fig. 8); the increase in price for apple is probably because of the scarcity of the apples in the markets as the season progresses and for small chilies is largely attributable to the limited production. The price of beans (Fig.3), asparagus (Fig.2) and big chili (Fig.7) increased precipitously in the month of March and April respectively. This was because the first harvests of beans, asparagus and local chilli begins in March and April. The onion price on average were recorded highest in January due to high price in India but gradually started declining beginning February 2020 (Fig.11). While the prices of cabbage, carrot, cauliflower, garlic, ginger, tomato and potato fluctuated slightly during the six months (Fig.4, Fig.5, Fig.9, Fig.10, Fig.12 and Fig.13), the prices of butter and cheese remained almost stable through the six months (Fig.14 and 15). The price of egg (Fig. 16) also remained stable from January to March and increases gradually.

Figure 1: Average monthly price of apple

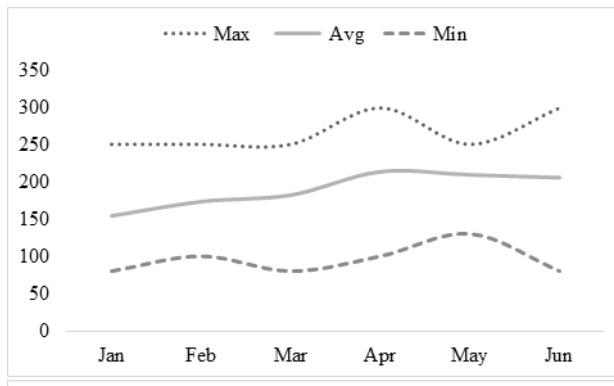


Figure 2: Average monthly price of asparagus

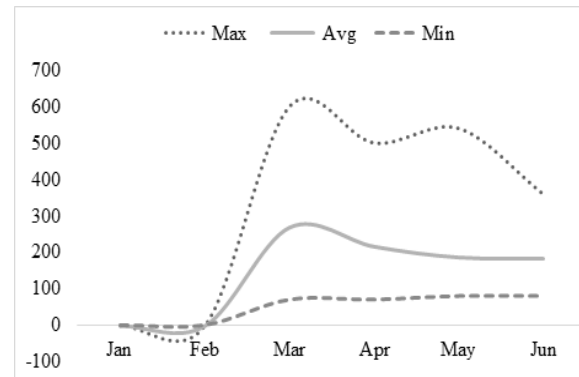


Figure 3: Average monthly price of beans

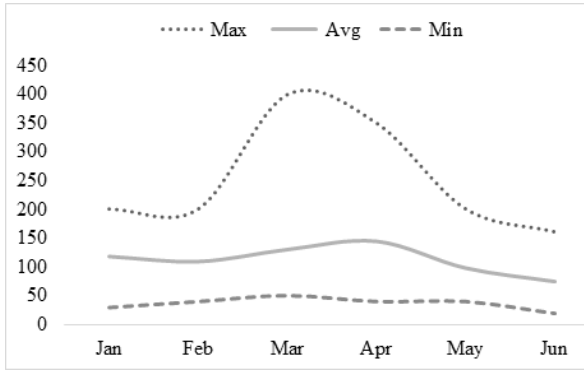


Figure 4: Average monthly price of cabbage

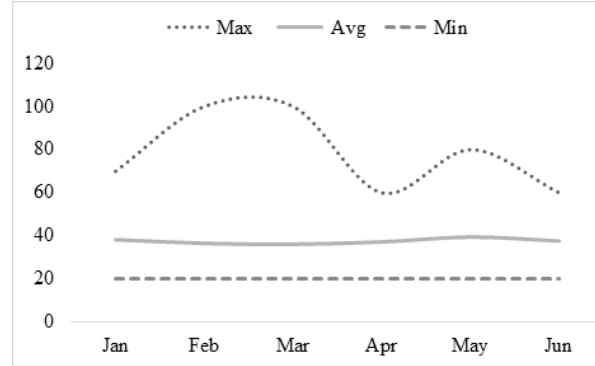


Figure 5: Average monthly price of carrot

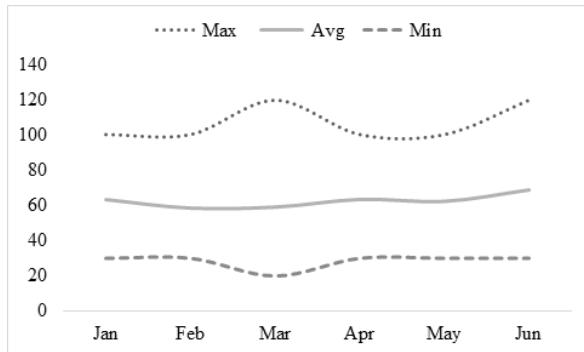


Figure 6: Average monthly price of cauliflower

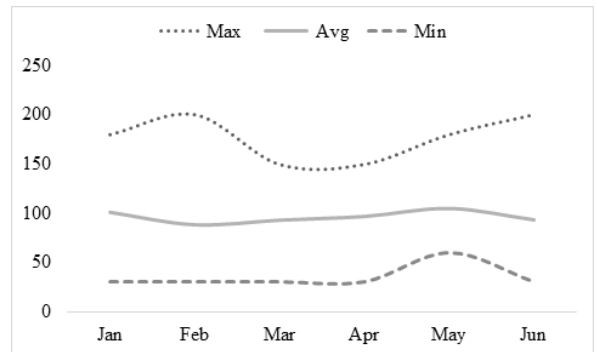


Figure 7: Average monthly price of big chili

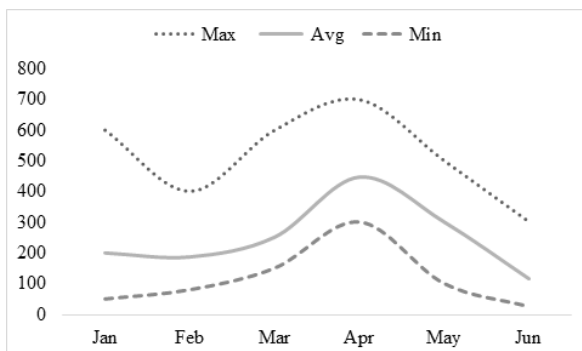


Figure 8: Average monthly price of small chili

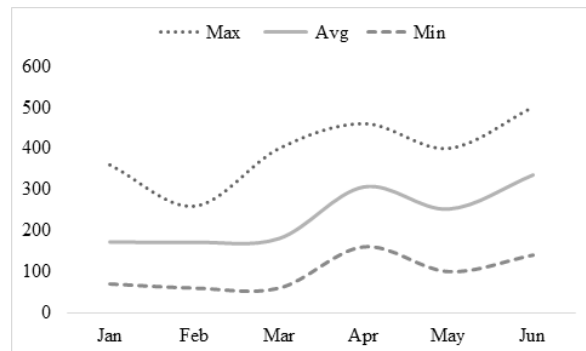


Figure 9: Average monthly price of garlic

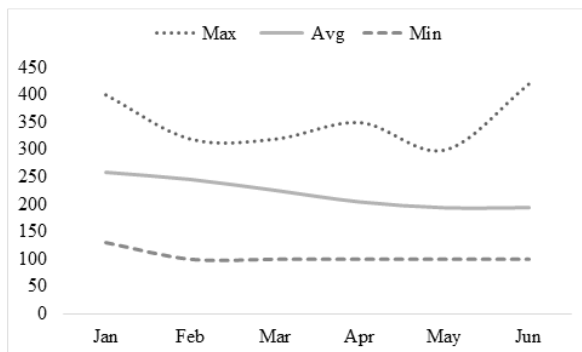


Figure 10: Average monthly price of ginger

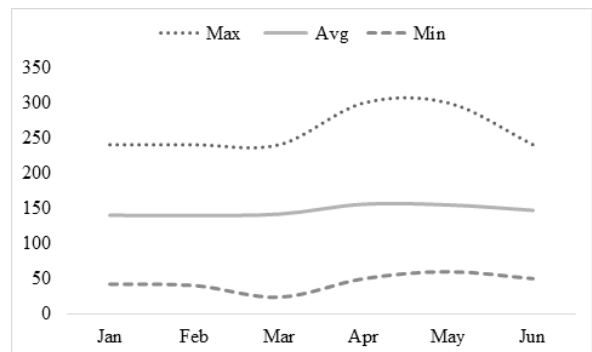


Figure 11: Average monthly price of onion

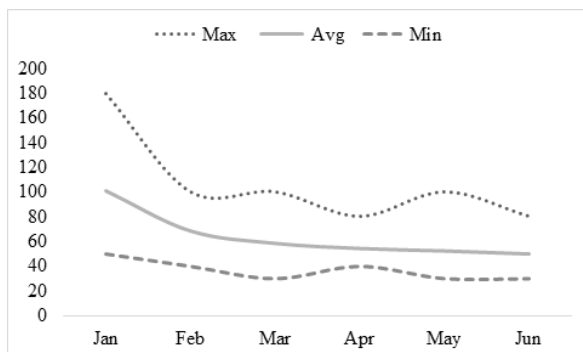


Figure 12: Average monthly price of tomato

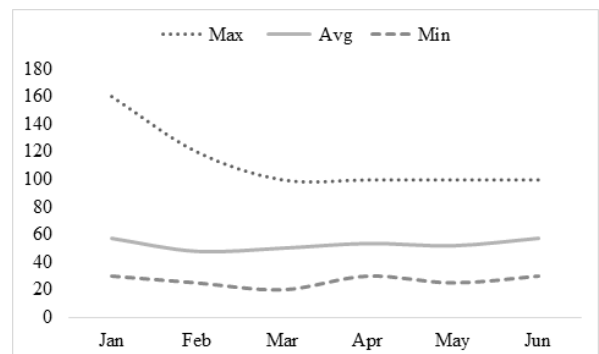


Figure 13: Average monthly price of potato

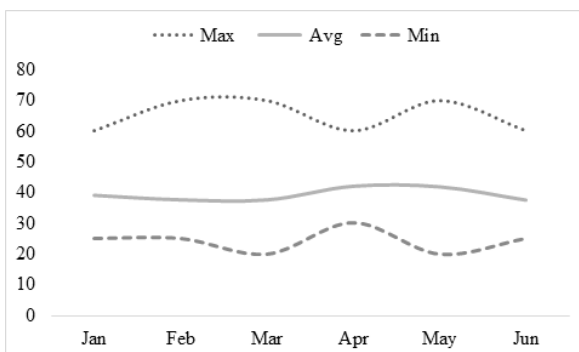


Figure 14: Average monthly price of butter

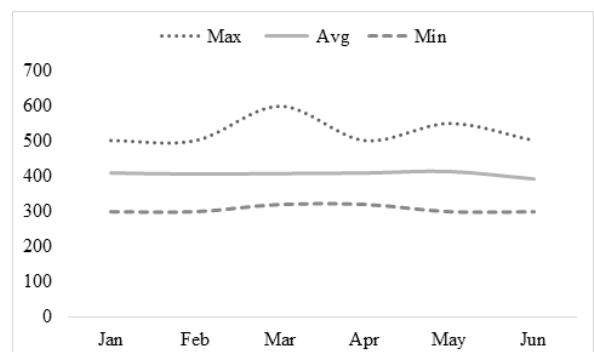


Figure 15: Average monthly price of cheese

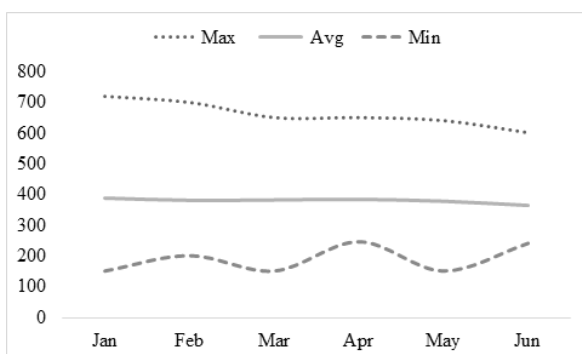
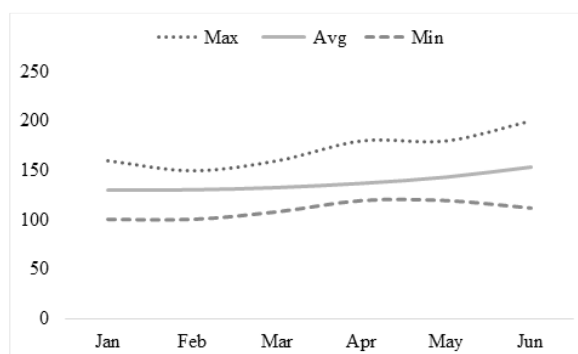


Figure 16: Average monthly price of cheese



2.2 Difference in average prices of commodities in different markets

The price of vegetables (19 types of vegetables) is consistently higher in Thimphu over the six months closely followed by Bumthang and Paro. With the few exceptions such as Tsirang and Mongar, which produces a lot of vegetables, the prices in the interior markets are consistently higher than those in the border markets like Nganglam, Gelephu and Samtse. This could be explained by the transportation cost from Indian State of West Bengal and Assam.

Table 1: Average price of vegetables for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Thimphu	98.8	106.0	130.8	145.6	110.0	107.1	116.4
Bumthang	103.0	100.3	116.2	95.4	126.7	123.6	110.9
Paro	100.6	93.9	105.3	113.5	112.9	110.1	106
Wangdue	95.7	88.9	114.1	115.0	122.0	90.2	104.3
Punakha	95.0	78.8	83.0	129.5	103.2	106.2	99.3
Chukha	72.7	100.8	89.6	85.2	107.0	93.3	91.4
Mongar	71.4	76.2	78.1	89.3	115.8	105.2	89.3
Tsirang	84.6	69.2	70.7	114.2	104.2	88.3	88.5
Nganglam	70.2	69.6	71.8	123.0	109.1	87.1	88.5
Gelephu	74.8	56.1	59.5	109.5	89.0	92.0	80.2
Samtse	70.5	64.1	71.7	96.5	89.1	73.9	77.6

The price of ginger and onion (tab 2 and tab 4) are highest in Bumthang and Wangdue over the period. Similar to vegetables, because most of the spice crops are imported, prices tend to be lower at the bordering towns. The price of garlic (tab 3) is highest in Samtse.

Table 2: Average price of ginger for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Bumthang	200	200	197.3	262.5	244.4	200	217.4
Wangdue	185	200	192.5	200	188.9	200	194.4
Paro	175.8	191.7	185.3	195.6	200	173.3	187
Punakha	155.3	146.7	171.1	183.3	160	159.2	162.6
Thimphu	161.3	146.7	180	170.8	165.3	148.3	162.1
Chukha	-	160	80	200	180	160	156
Mongar	133.3	160	120	130	80	151.7	129.2
Gelephu	140	118.3	133.3	122.2	120	140	129
Nganglam	101.7	118.3	134.2	89.2	96.7	126.7	111.1
Tsirang	90	100	100	120	100	97.8	101.3
Samtse	61.1	79.2	69.3	101.1	95	57.5	77.2

Table 3: Average price of garlic for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Samtse	308.3	240	290	230	213.3	410	281.9
Paro	310	301.66	312	262.2	226.67	215	271.3
Tsirang	260	273.33	240	221.7	240	231.1	244.4
Wangdue	323.3	277.8	227.5	213.3	201.1	200	240.5
Punakha	281.3	296.7	198.9	239.2	180.7	240	239.4
Gelephu	248.3	238.3	197.8	241.1	200	200	220.9
Nganglam	235	240	232.5	206.7	210	200	220.7
Thimphu	263.3	264.5	193.3	197.5	193.3	209.2	220.2
Bumthang	200	200	200	254.2	283.3	166.7	217.4
Chukha	300	220	150	190	200	200	210
Mongar	293.3	160	232.5	162.2	175	155	196.3

Table 4: Average price of onion for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Bumthang	200	200	197.3	262.5	244.4	200	217.4
Wangdueg	185	200	192.5	200	188.9	200	194.4
Paro	175.8	191.7	185.3	195.6	200	173.3	187
Punakha	155.3	146.7	171.1	183.3	160	159.2	162.6
Thimphu	161.3	146.7	180	170.8	165.3	148.3	162.1
Chukha	-	160	80	200	180	160	156
Mongar	133.3	160	120	130	80	151.7	129.2
Gelephu	140	118.3	133.3	122.2	120	140	129
Nganglam	101.7	118.3	134.2	89.2	96.7	126.7	111.1
Tsirang	90	100	100	120	100	97.8	101.3
Samtse	61.1	79.2	69.3	101.1	95	57.5	77.2

The price of apple (tab 5) was consistently highest in Gelephu over the period. Average price of mandarin and watermelon (tab 6 & tab 7) were high in Bumthang, Paro and Thimphu markets since it grows only in the lower altitude, prices tend to be lower in the markets located in the south.

Table 5: Average price of apple for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Gelephu	204.4	182.5	191.7	293.3	230	250	225.3
Wangdue	155	211.1	200	244.4	244.4	241.7	216.1
Mongar	200	200	-	225	225	197.2	209.4
Nganglam	-	150	170	300	195.6	186.7	200.4
Punakha	127.5	200	200	200	219.3	223.3	195
Tsirang	-	175	193.3	200	200	200	193.7
Bumthang	150	147.8	180	216.7	222.2	208.9	187.6
Paro	123.3	162.5	176.7	216.7	206.7	209.2	182.5
Thimphu	158.7	145.6	156.7	196.7	200.7	202.5	176.8
Samtse	106.7	200	-	-	200	-	168.9

Table 6: Average price of mandarin for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Bumthang	135	147.8	152.1	179.2	-	200	162.8
Paro	135.8	150.8	148	160	186.7	186.7	161.3
Thimphu	128.7	152.2	166.7	168.3	161.7	-	155.5
Wangdue	108.3	118.9	150	178.75	-	-	139
Gelephu	91.7	125.8	143.3	190.8	-	-	137.9
Samtse	146.7	125	-	-	-	-	135.8
Punakha	106.3	125	141.7	141.7	-	-	128.6
Nganglam	80	76.7	102.2	100	-	-	89.7
Tsirang	76.7	88.9	100	-	-	-	88.5
Mongar	50	50	55	100	-	-	63.8

Table 7: Average price of watermelon for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Bumthang	135	147.8	152.1	179.2	-	200	162.8
Paro	135.8	150.8	148	160	186.7	186.7	161.3
Thimphu	128.7	152.2	166.7	168.3	161.7	-	155.5
Wangdue	108.3	118.9	150	178.75	-	-	139
Gelephu	91.7	125.8	143.3	190.8	-	-	137.9
Samtse	146.7	125	-	-	-	-	135.8
Punakha	106.3	125	141.7	141.7	-	-	128.6
Nganglam	80	76.7	102.2	100	-	-	89.7
Tsirang	76.7	88.9	100	-	-	-	88.5
Mongar	50	50	55	100	-	-	63.8

Prices of locally produced butter, cheese and egg were lowest in Monggar, Tsirang, Samtse and Gelephu while expensive in towns such as Thimphu, Paro, Wangdue and Punakha. This could be explained by the ratio of number of dairy farms and farmers to the local population, the demand and the purchasing capacity of the population.

Table 8: Average price of butter for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Paro	479.17	487.5	478.7	488.9	483.3	485.8	483.9
Thimphu	416	478.9	525	468.3	484.7	477.5	475.1
Punakha	450	475	441.67	435	439.3	442.5	447.3
Wangdue	-	450	-	450	450	416.7	441.7
Chukha	-	375	450	410	450	433.3	423.7
Bumthang	416.7	-	428.3	415	391.1	398.9	410
Gelephu	398.3	391.7	406.1	404.4	400	396.7	399.5
Tsirang	325	373.3	-	350	380	360	357.7
Samtse	356.7	369.5	356.3	347.8	350	350	355
Mongar	360	360	350	350	335	360	352.5
Nganglam	-	-	355	-	350	350	351.7

Table 9: Average price of cheese for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Thimphu	510	544.5	525	525	485.5	488.4	513.1
Paro	485.8	439.6	427.3	442.2	418.3	421.7	439.2
Wangdue	-	503.3	360	333.3	450	425	414.3
Bumthang	406.7	402.2	400.7	383.3	357.8	364.5	385.9
Samtse	270	333.3	325.3	337.5	-	525	358.2
Punakha	302.22	250	400	407.5	382	372.5	352.4
Chukha	-	225	250	-	456.67	450	345.4
Mongar	280	310	367.5	420	300	348.3	337.6
Gelephu	274.2	307.5	337.5	384.5	280	301.7	314.2
Tsirang	260	383.3	370	256.7	240	309.5	303.2
Nganglam	-	-	225	-	150	300	225.0

Table 10: Average price of egg for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Wangdue	140	150	142.5	150	160	175	152.9
Nganglam	144.3	144.4	144.3	145	145	145	144.6
Tsirang	138.7	120	148	130	180	145.3	143.7
Bumthang	138.3	137.2	130	140	141.1	161.1	141.3
Thimphu	124.7	125.6	138.3	137.5	148.3	170.8	140.9
Paro	124.2	122.5	134	147.8	136.7	167.5	138.8
Chukha	132	123.3	110	145	130.8	180	136.9
Punakha	124	123.3	122.2	122.5	136.7	160.8	131.6
Mongar	-	-	132.5	126	120	133	127.9
Gelephu	129.2	122.5	120.8	120	120	146	126.4
Samtse	115.8	120.3	117.5	-	-	120	118.4

Similarly, non-wood forests products such as cane (*patsha*) and fern (*nakey*) found only in certain locations and are not cultivated, in general prices are expected to be lower at markets closer to their habitat. Prices for these produces were highest in Wangdue, Bumthang and Thimphu markets.

Table 11: Average price of cane (*patsha*) for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Bumthang	-	93.3	85	96.7	91.1	-	91.5
Nganglam	-	-	-	85	-	-	85.0
Mongar	-	-	40	-	100	86.7	75.6
Chukha	-	80	-	70	-	-	75.0
Paro	69.2	55	63	68.9	81.7	78.3	69.3
Gelephu	74.4	66.7	54.4	60	-	80	67.1
Thimphu	67.3	67.8	65	59.2	64	65.8	64.9
Samtse	83.3	49	76.7	58.9	60	55	63.8
Punakha	53.3	97.5	70	45	56.7	50.8	62.2
Wangdue	-	50	73.3	70	45	-	59.6
Tsirang	-	-	-	-	-	50	50.0

Table 12: Average price of nakey for six months

Markets	January	February	March	April	May	June	Average price (Nu/kg)
Wangdue	-	400	201.7	53.3	71.7	-	181.7
Thimphu	160	293.3	186.7	62.5	58.7	64.2	137.6
Nganglam	-	-	-	135	75	-	105.0
Paro	42.8	95	162.2	90	87.5	91.3	94.8
Punakha	-	100	146.9	50.8	48	-	86.4
Bumthang	-	100	96.7	75	60	-	82.9
Tsirang	-	70	70	56.7	53.3	61.1	62.2
Samtse	-	80	52.7	50	55	60	59.5
Gelephu	36.7	36.7	47.5	70	-	-	47.7

3. Conclusion

The study reveals that the main factor affecting the prices are market forces of demand and supply. As basics of any economy, an increase in demand with the supply unchanged leads to rise in price and with an increase in supply without change in demand leads to decrease in price. Pricing is also influenced by the quality of produce and when the seasonal produce hits the market for the first time.

Local production in Bhutan is limited during the months of January, February and March. Therefore, the market is driven by imported produce from India. However, local produce like chili, asparagus and beans come into market beginning April.

In general, we can conclude that the prices for vegetables, spices (ginger and onion), fruits (apple, butter and cheese, and non-wood forest products remained consistently high in Thimphu, Paro, Bumthang, Wangduephodrang and Punakha. While in places like Tsirang and Mongar, the prices tend to be lower considering these areas are suitable for production for many commodities. Similarly, bordering markets like Nganglam, Gelephu and Samtse have consistent low prices owing to minimum transportation cost. Thus, producers could plan their production according to pricing trends and unavailability of specific commodities in the market.