

B. Agricultural Production

Paddy and maize are Bhutan's two major cereal crops. Paddy is grown mainly in the temperate region (up to a maximum altitude of 2300m), where the temperatures and rainfall are higher than elsewhere in the country and there is more irrigated land. Maize is also grown at these lower elevations, but there is a preference for paddy in the western areas and for maize in the eastern areas. Wheat, buckwheat, barley, and millet are also grown, but the success rate for each depends very much on the local conditions. All farmers grow a few vegetables for their own home consumption, but increasingly farmers are turning to crops like potato and chilli that can be cultivated on larger areas and can be sold or traded.

Data on paddy and maize are provided separately, data on the less widely cultivated cereals are presented collectively. Due to their emerging importance for Bhutanese agriculture, data on potato and chilli are also provided. No detailed data are presented on other vegetable crops as their production is still insignificant compared to the main crops.

The following maps and tables are presented in this section:

- B.1. Area Used to Grow Paddy
- B.2. Area Used to Grow Maize
- B.3. Area Used to Grow Wheat, Barley, Millet and Buckwheat
- B.4. Area Used to Grow Potato and Chilli
- B.5. Farm Households Cultivating Paddy
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- B.7. Availability of Wheat, Barley, Millet and Buckwheat and Percentage of Households Cultivating Them
- B.8. Production of Paddy and Availability per Household
- B.9. Production of Maize and Availability per Household
- B.10. Production of Wheat, Barley, Millet and Buckwheat and Availability per Household
- B.11. Production of Vegetables and Availability per Household
- B.12. Yields of Paddy, Maize, Wheat and Barley



Area Used to Grow Paddy

Table B.1 shows the number of acres per district used to grow paddy in 2000, with the districts listed in descending order of paddy area. The map shows the districts ranked according to paddy area.

In 2000, over 47,000 acres of paddy were harvested. Samtse district had the largest harvested area (over 7000 acres) followed by Sarpang and Punakha; Pemagatshel and Bumthang had the lowest areas (less than 100 acres each).

Table B.1

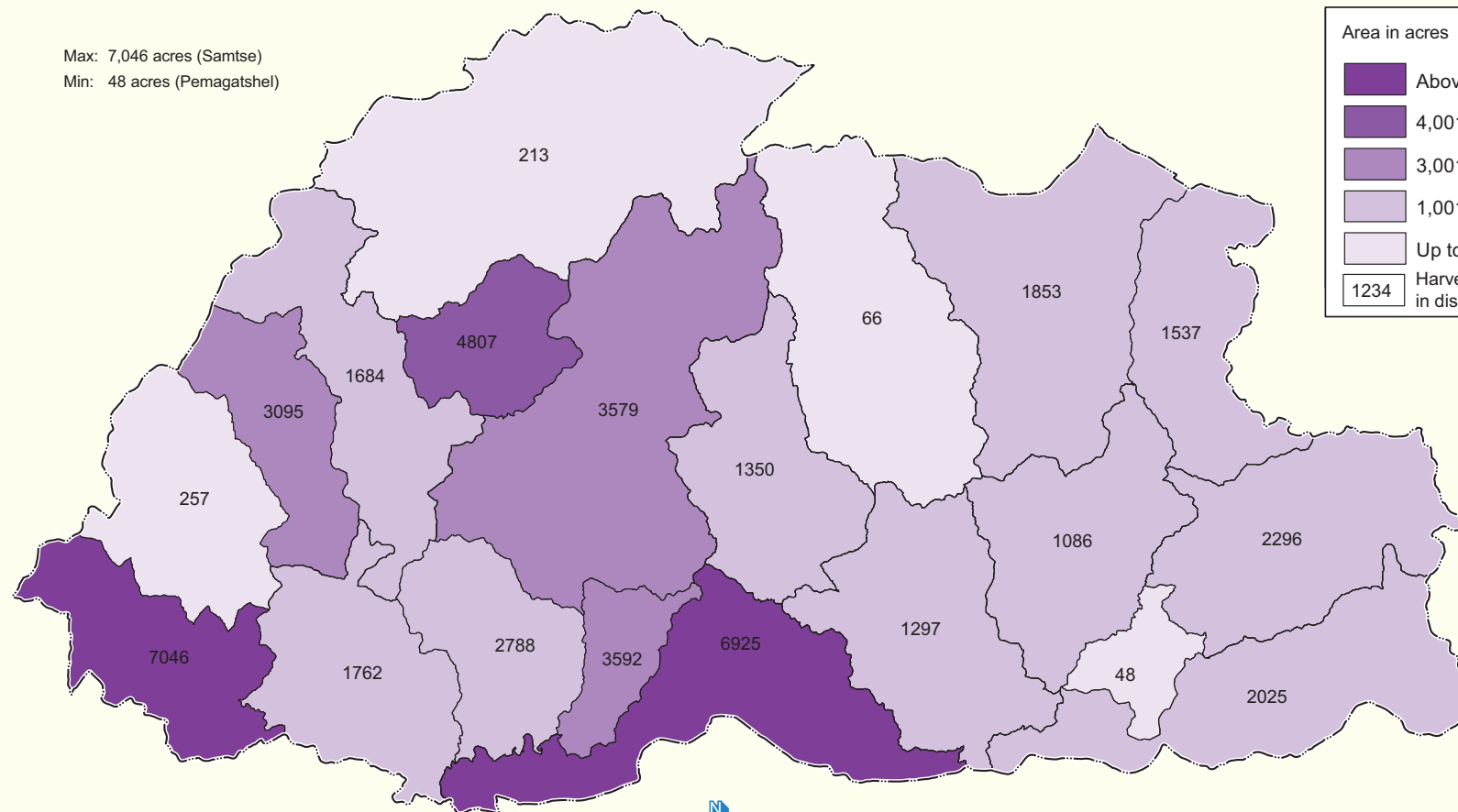
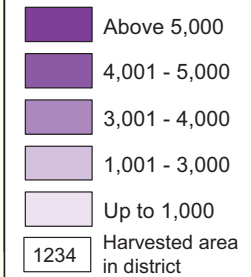
District	Paddy Area (acres)	District	Paddy Area (acres)
Samtse	7,046	Chhukha	1,762
Sarpang	6,925	Thimphu	1,684
Punakha	4,807	Trashigang	1,537
Tsirang	3,592	Trongsa	1,350
Wangdue	3,579	Zhemgang	1,297
Paro	3,095	Mongar	1,086
Dagana	2,788	Ha	257
Trashigang	2,296	Gasa	213
S/Jongkhar	2,025	Bumthang	66
Lhuntse	1,853	Pemagatshel	48
		Bhutan Total	47,306

Area Used to Grow Paddy

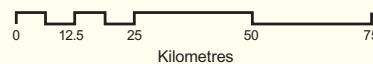
Max: 7,046 acres (Samtse)
Min: 48 acres (Pemagatshel)

LEGEND

Area in acres



Scale 1:1,500,000



Base Map: Department of Survey and Land Records,
Ministry of Agriculture
Data Source: RNR Statistics 2000, Ministry of Agriculture



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Area Used to Grow Maize

Table B.2 shows the number of acres per district used to grow maize in 2000, with the districts listed in descending order of maize area. The map shows the districts ranked according to maize area.

In 2000, nearly 77,000 acres of maize were harvested. Maize was much more common in the southern and eastern parts of the country. Samtse had the largest harvested area (over 11,000 acres) followed by Sarpang, Trashigang, and Samdrup Jongkhar; Gasa and Paro had the lowest areas (less than 50 acres each).

Table B.2

District	Maize (acres)	District	Maize (acres)
Samtse	11,069	Lhuntse	2,700
Sarpang	9,505	Yangtse	2,446
Trashigang	9,321	Trongsa	666
S/Jongkhar	9,123	Punakha	297
Mongar	7,640	Ha	266
Dagana	6,205	Wangdue	232
Tsirang	5,658	Thimphu	76
Chhukha	5,388	Bumthang	61
Zhemgang	3,165	Paro	27
Pemagatshel	3,092	Gasa	4
		Bhutan Total	76,941

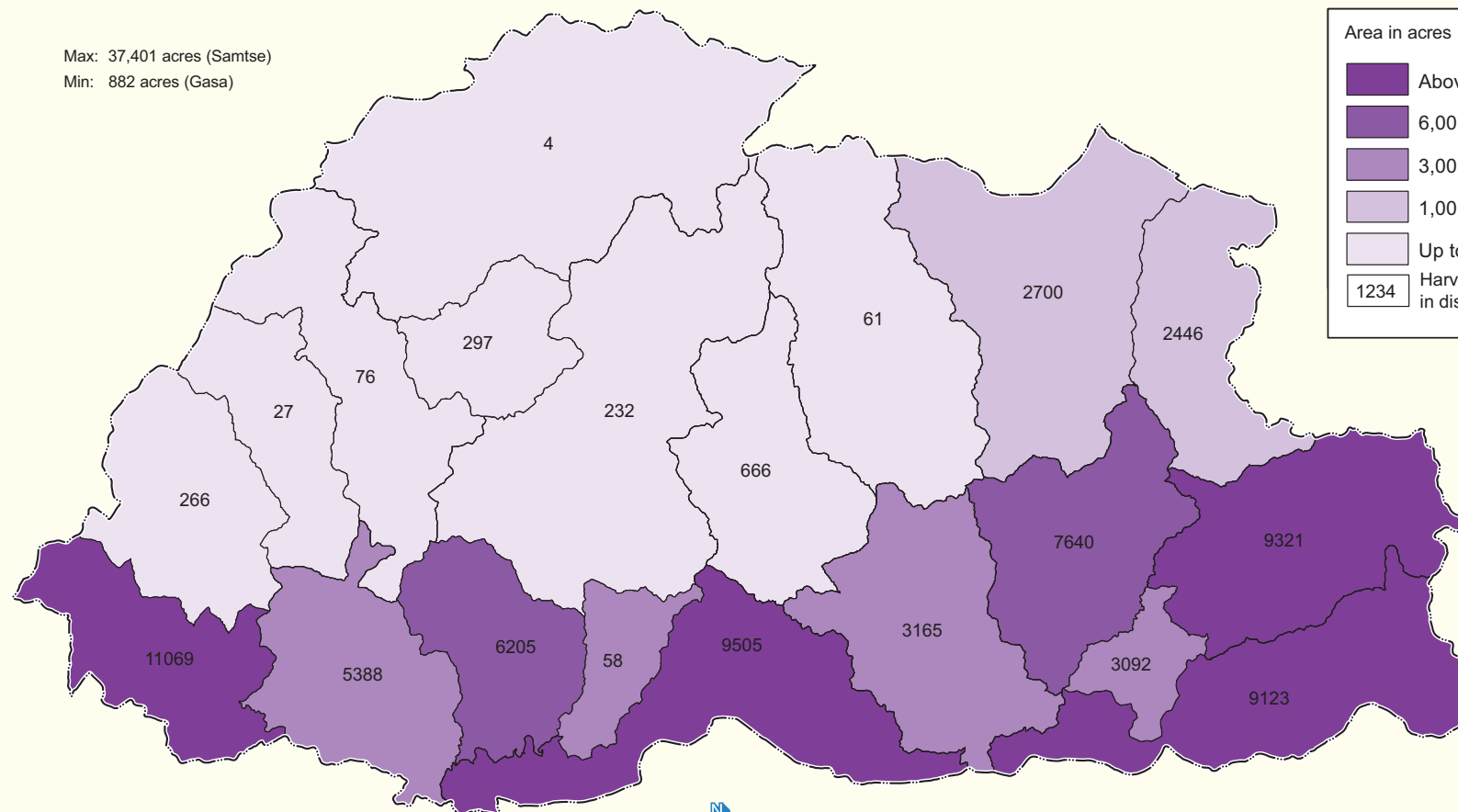
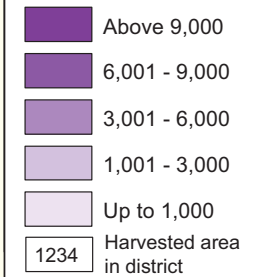
Area Used to Grow Maize

B 2

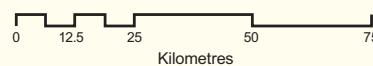
Max: 37,401 acres (Samtse)
Min: 882 acres (Gasa)

LEGEND

Area in acres



Scale 1:1,500,000



Base Map: Department of Survey and Land Records,
Ministry of Agriculture
Data Source: RNR Statistics 2000, Ministry of Agriculture



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Area Used to Grow Wheat, Barley, Millet and Buckwheat

Table B.3 below shows the number of acres per district used to grow wheat, barley, millet, and buckwheat in 2000, with the districts listed in descending order of total area for all four crops. The map shows the districts ranked according to area for all four crops together. The superimposed pie charts show the proportion of the total area used for each of the crops, and indicate differences in the total area for all crops per district.

The areas used to grow wheat, barley, millet and buckwheat were considerably smaller than those used for paddy or maize, but they are still considerable in the context of the nation's food security policy. These cereals are particularly important for farm households at high altitudes where other cereals cannot grow. In 2000, over 11,500 acres wheat were harvested, more than half of it in the four districts of Wangdue, Paro, Punakha, and Ha. About 15,000 acres of millet (including both finger millet and foxtail millet) were harvested with the largest areas in Samtse, Sarpang, and Chhukha; and about 9,000 acres of buckwheat (both sweet and bitter) were harvested with the largest areas in Samdrup Jongkhar, Bumthang, and Trashigang.

Table B.3

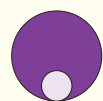
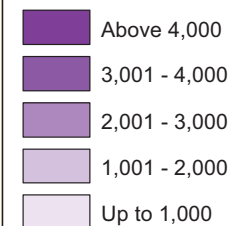
District	Harvested Area (acres)				Total	District	Harvested Area (acres)				Total
	Wheat	Barley	Millet	Buckwheat			Wheat	Barley	Millet	Buckwheat	
Samtse	439	148	4,640	601	5,828	Trashigang	229	322	51	1,102	1,704
Chhukha	626	110	2,039	997	3,772	Punakha	1,229	40	16	63	1,348
Sarpang	45	58	3,401	262	3,766	Mongar	97	733	100	208	1,138
S/Jongkhar	97	321	1,099	1,827	3,344	Trongsa	519	289	44	237	1,089
Wangdue	2,251	401	36	229	2,917	Pemagatshel	70	213	193	328	804
Bumthang	839	499	40	1,250	2,628	Thimphu	608	77	6	6	697
Paro	2,195	113	44	110	2,462	Trashy Yangtse	49	29	597	15	690
Tsirang	625	48	1,276	195	2,144	Zhemgang	100	47	269	234	650
Dagana	171	82	1,062	527	1,842	Lhuntse	89	14	240	21	364
Ha	1,177	55	83	504	1,819	Gasa	129	102	2	4	237
Bhutan Total							11,585	3,701	15,238	8,720	39,243

Area Used to Grow Wheat, Barley, Millet and Buckwheat

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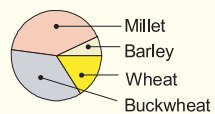
Area in acres



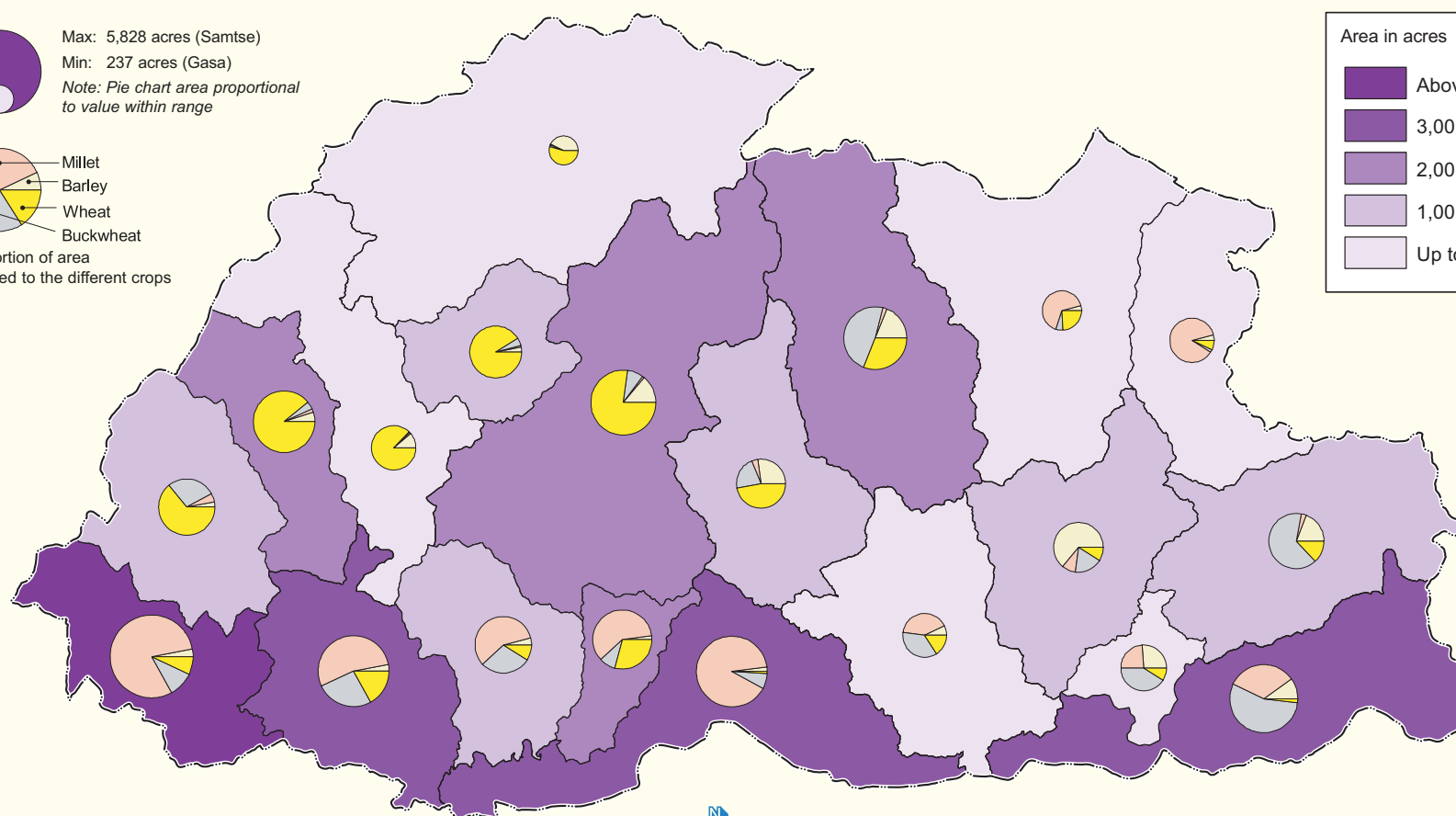
Max: 5,828 acres (Samtse)

Min: 237 acres (Gasa)

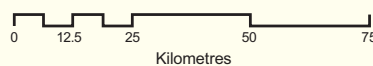
Note: Pie chart area proportional to value within range



Proportion of area devoted to the different crops



Scale 1:1,500,000

Base Map: Department of Survey and Land Records,
Ministry of Agriculture

Data Source: RNR Statistics 2000, Ministry of Agriculture



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Area Used to Grow Potato and Chilli

Every farm household has at least some land area dedicated to a kitchen garden where they cultivate a variety of vegetables to meet daily household needs. In areas where there is easy access to market, surplus vegetables are sold for cash income. In the past, potatoes and chilli were simply backyard kitchen items, but increasing market opportunities mean that farmers are now turning to these crops to provide most of their cash income from farming. There is a large in-country demand for chilli, and both because there is a limited market outside and because this crop is perishable, chilli is marketed only within the country. Potatoes are both sold within the country and exported to India.

Table B.4 shows the number of acres per district used to grow potato and chilli in 2000, with the districts listed in descending order of total area for the two crops. The map shows the districts ranked according to the total area for the two crops together. The superimposed pie charts show the proportion of the total area used for each of the crops, and indicate differences in the total area for both crops per district. The recorded area includes both simple kitchen gardens and bigger farm plots.

In 2000, over 7,700 acres were used to grow potato and more than 2,300 acres to grow chilli. Trashigang, Paro, and Wangdue had the largest areas under potato and chilli both separately and together. Gasa, Samtse and Zhemgang had the smallest total areas of these crops.

Table B.4

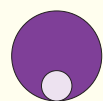
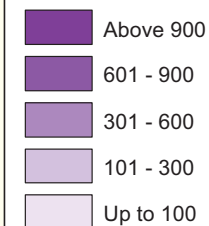
District	Potato (acres)	Chilli (acres)	Total (acres)	District	Potato (acres)	Chilli (acres)	Total (acres)
Trashigang	1,713	297	2,010	Ha	314	14	328
Paro	902	355	1,257	Punakha	41	245	286
Wangdue	872	260	1,132	Lhuntse	95	141	236
Mongar	595	130	725	Trongsa	120	77	197
Chhukha	640	81	721	Sarpang	131	44	175
Bumthang	678	27	705	S/Jongkhar	122	50	172
Tsirang	485	73	558	Dagana	93	49	142
Pemagatshel	344	131	475	Zhemgang	26	34	60
Thimphu	278	121	399	Samtse	40	15	55
Trashy Yangtse	214	159	373	Gasa	12	12	24
				Bhutan Total	7,715	2,315	10,030

Area Used to Grow Potato and Chilli

B 4

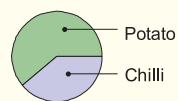
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Area in acres

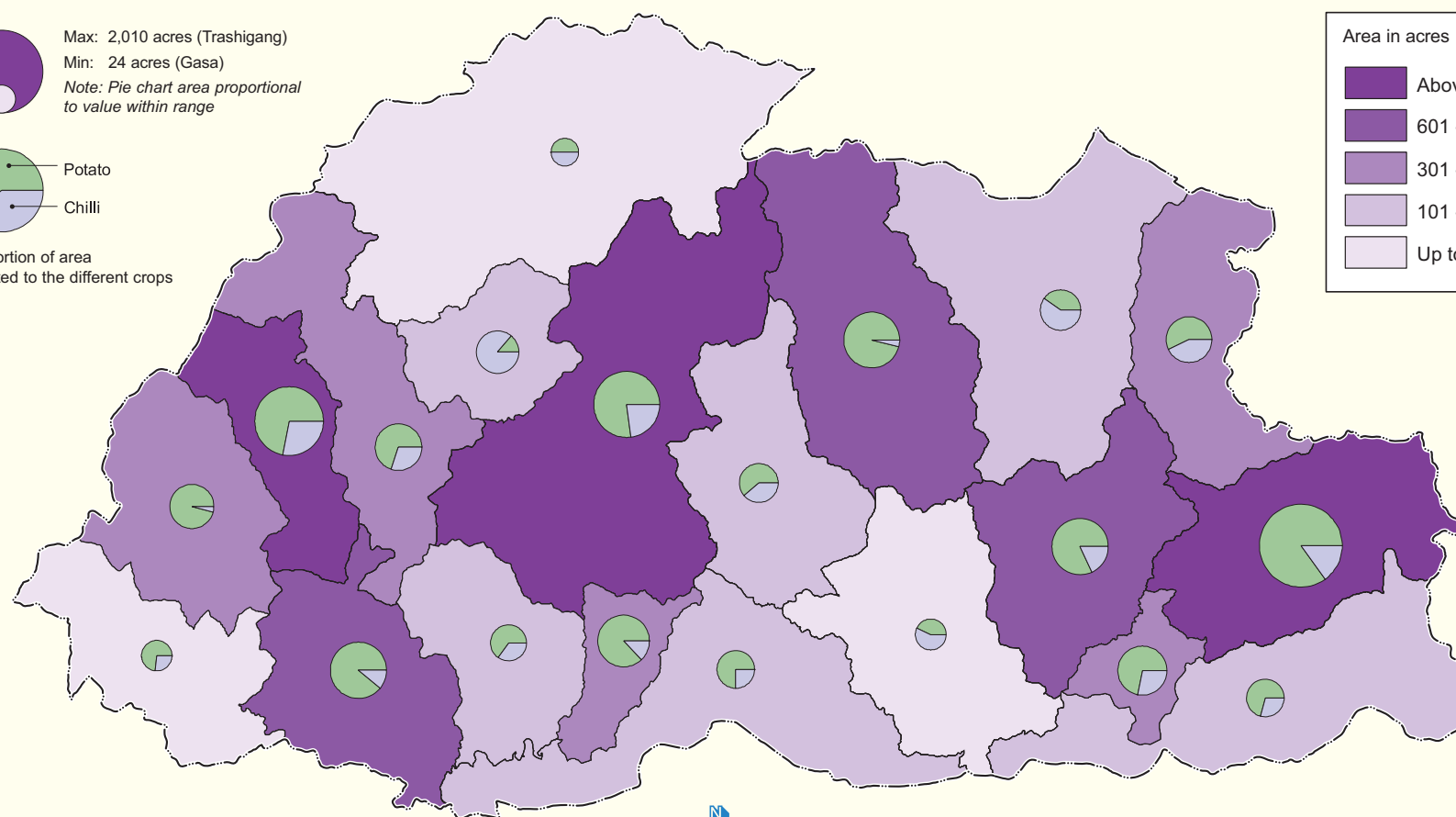


Max: 2,010 acres (Trashigang)
Min: 24 acres (Gasa)

Note: Pie chart area proportional to value within range



Proportion of area devoted to the different crops



Scale 1:1,500,000



Base Map: Department of Survey and Land Records,
Ministry of Agriculture
Data Source: RNR Statistics 2000, Ministry of Agriculture



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Farm Households Cultivating Paddy

Paddy is a very important cereal crop as rice is the main staple food in Bhutan. Table B.5 shows the percentage of households cultivating paddy in each district in 2000, listed in descending order. The map shows the districts ranked according to the percentage of households cultivating paddy.

More than two-thirds of all households in the central and northeastern districts cultivate paddy, with the largest percentage in Punakha (92%) followed by Trongsa (82%). Very few households grew paddy in Pemagatshel, where there is little chushing land and households that do produce paddy mainly do so on non-irrigated land under shifting cultivation. Similarly almost no paddy is grown in Bumthang because it is too cold; the households in Bumthang that grow paddy actually cultivate it in other districts.

Table B.5

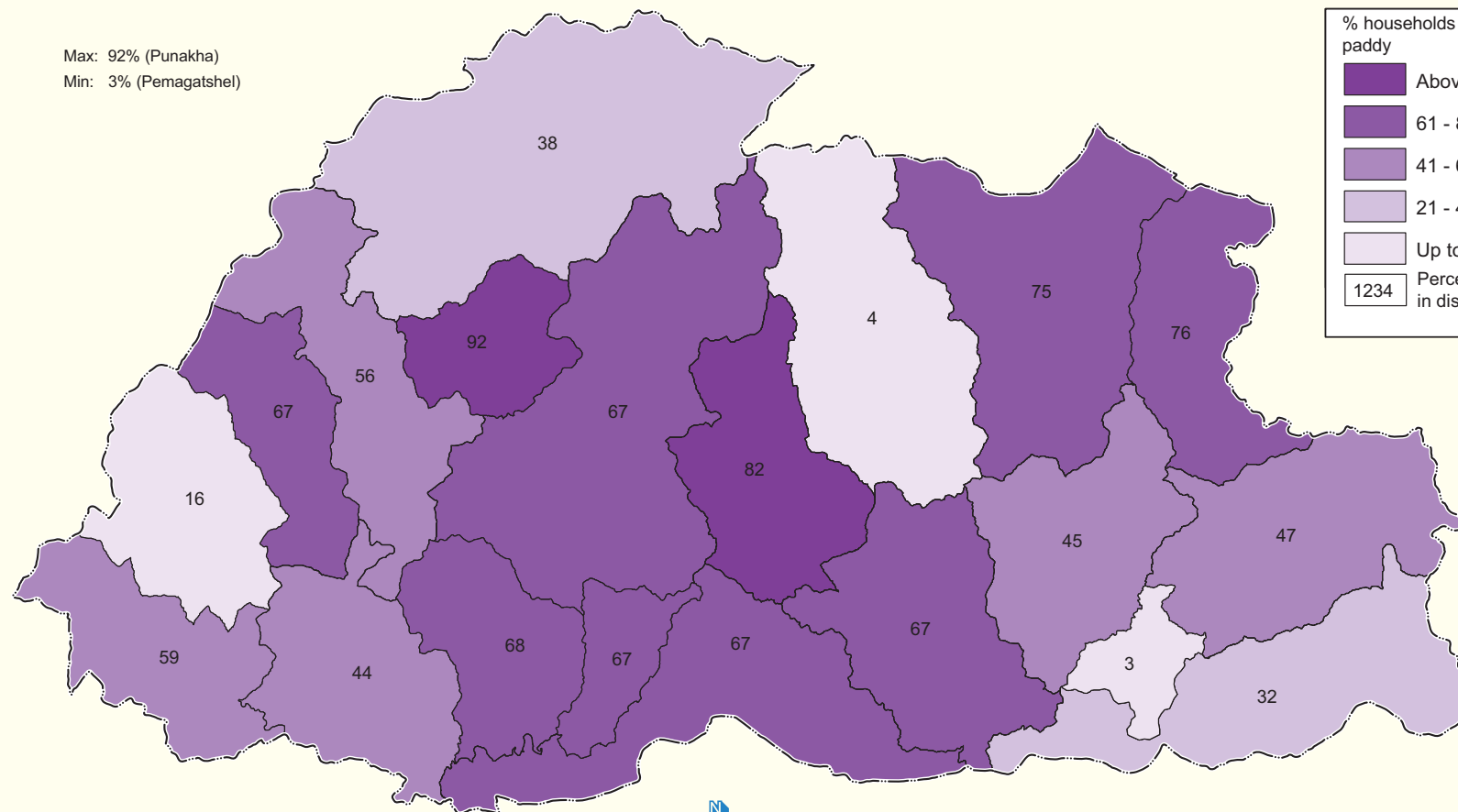
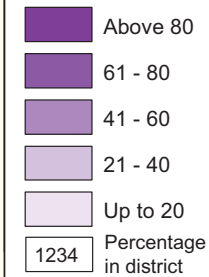
District	% HHs Cultivating Paddy	District	% HHs Cultivating Paddy
Punakha	92	Samtse	59
Trongsa	82	Thimphu	56
Trashigang	76	Trashigang	47
Lhuntse	75	Mongar	45
Dagana	68	Chhukha	44
Zhemgang	67	Gasa	38
Wangdue	67	S/Jongkhar	32
Paro	67	Ha	16
Tsirang	67	Bumthang	4
Sarpang	67	Pemagatshel	3
		Average*	54
* Simple average, not weighted			

Farm Households Cultivating Paddy

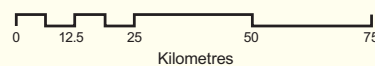
Max: 92% (Punakha)
Min: 3% (Pemagatshel)

LEGEND

% households cultivating paddy



Scale 1:1,500,000



Base Map: Department of Survey and Land Records,
Ministry of Agriculture
Data Source: RNR Statistics 2000, Ministry of Agriculture



PPD, MOA



Farm Households Cultivating Maize

Maize is the second most important cereal crop in Bhutan. In addition to being a food crop, maize is also fermented to prepare local beverages and both the grain and its by-products are used for livestock feed. Table B.6 shows the percentage of households cultivating maize in each district in 2000, listed in descending order. The map shows the districts ranked according to the percentage of households cultivating maize.

Around 80% or more of households in the eastern and southern districts (apart from Chhukha) cultivate maize, with the largest percentage in Pemagatshel and Mongar. Maize is only grown very sparingly in the more northern and western districts despite favourable climatic conditions, and is more often used as livestock feed than for human consumption.

Table B.6

Districts	% HHs Cultivating Maize	Districts	% HHs Cultivating Maize
Pemagatshel	94	Sarpang	79
Mongar	94	Chhukha	68
S/Jongkhar	89	Trongsa	49
Zhemgang	87	Ha	19
Tsirang	84	Punakha	18
Trashigang	84	Wangdue	10
Lhuntse	84	Bumthang	8
Yangtse	81	Thimphu	6
Samtse	81	Paro	2
Dagana	79	Gasa	1
		Average*	69
* Simple average, not weighted			

Farm Households Cultivating Maize

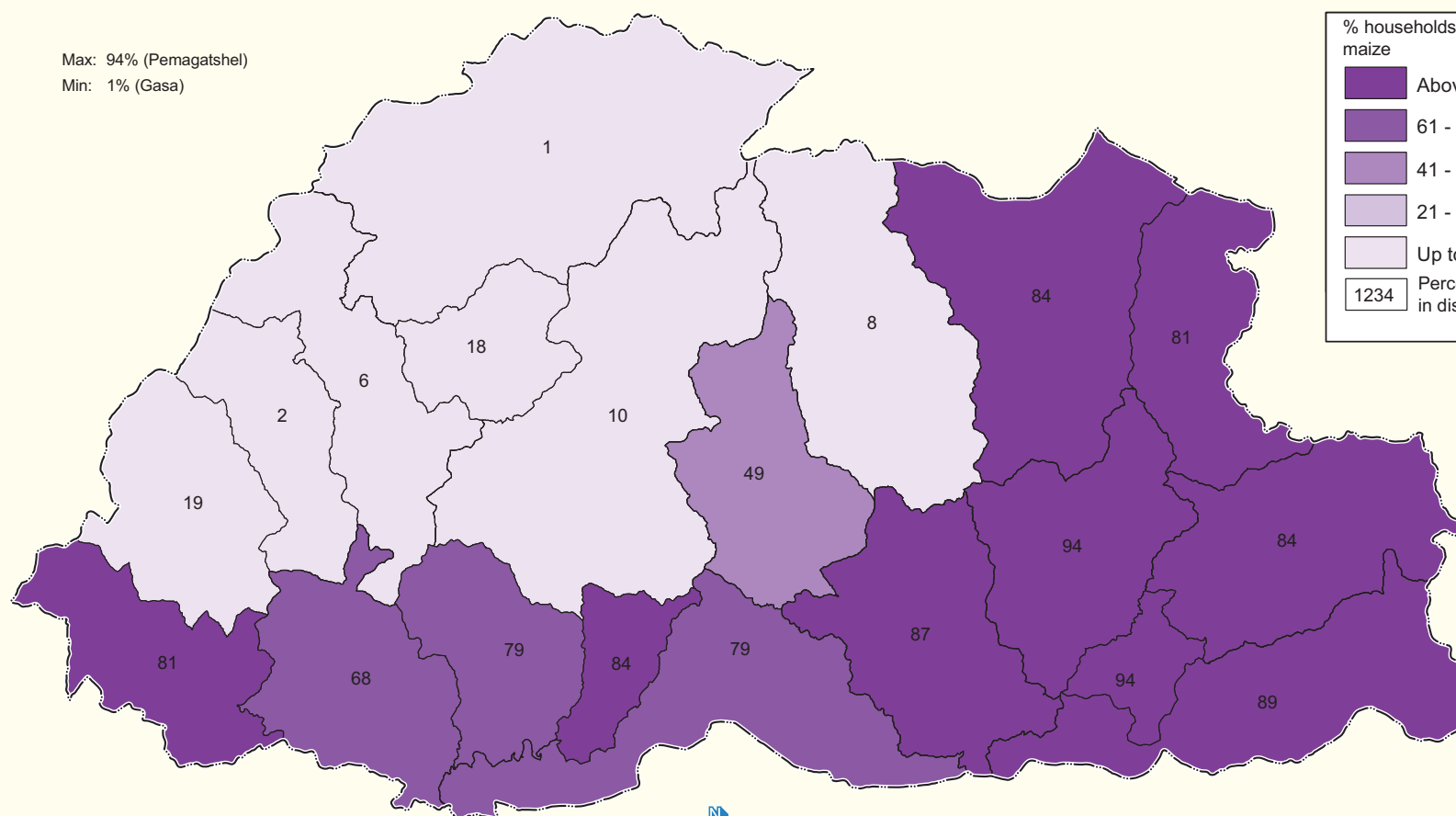
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Max: 94% (Pemagatshel)
Min: 1% (Gasa)

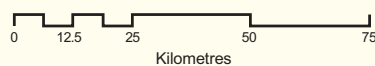
LEGEND

% households cultivating maize

- Above 80
- 61 - 80
- 41 - 60
- 21 - 40
- Up to 20
- Percentage in district



Scale 1:1,500,000



Base Map: Department of Survey and Land Records,
Ministry of Agriculture
Data Source: RNR Statistics 2000, Ministry of Agriculture



PPD, MOA



Availability of Wheat, Barley, Millet and Buckwheat and Percentage of Households Cultivating Them

Table B.7 shows the percentage of households cultivating wheat, barley, millet, and buckwheat (both sweet and bitter) in 2000, listed in descending order of total availability per household (number of kg produced divided by total farm households in district; see also Table B.10 and Map 10). The map shows the districts ranked according to the total availability per farm household of the four crops together. The superimposed bar charts show the percentage of households cultivating each of the different crops.

Wangdue had the highest percentage of farm households cultivating wheat (60%) and Sarpang the lowest (<1%); Gasa had the highest percentage of households cultivating barley (48%) with Sarpang again the lowest (1%); Sarpang and Chhukha districts had the highest percentage producing millet (37%); and Bumthang the highest percentage of households producing buckwheat (75%).

Bumthang and Ha districts, which had a low percentage of households growing either paddy or maize, had the highest availability per household of the other cereals, indicating the importance of these cereals in districts where paddy and maize cannot be grown.

Table B.7

District	% Households Cultivating				Availability kg/HH	District	% Households Cultivating				Availability kg/HH
	Wheat	Barley	Millet	Buckwheat			Wheat	Barley	Millet	Buckwheat	
Bumthang	50	36	1	75	670	Dagana	6	3	22	19	219
Ha	74	12	7	48	548	Sarpang	1	1	37	8	184
Wangdue	60	16	3	10	431	Pemagatshel	4	8	8	14	177
Gasa	35	48	2	1	322	Tsirang	19	1	33	7	174
Trongsa	40	26	5	22	303	Samtse	5	2	44	8	157
Paro	43	2	4	5	301	Trashy Yangtse	2	1	24	1	154
Chhukha	15	4	37	21	295	Zhemgang	7	3	18	16	154
S/Jongkhar	3	7	18	32	273	Mongar	3	15	3	5	119
Punakha	45	4	1	4	271	Lhuntse	5	1	13	2	104
Thimphu	28	8	0	1	241	Trashigang	4	6	1	13	70
						Average*	13.3	6.8	16.9	14.3	214
* Simple averages, not weighted											

Availability of Wheat, Barley, Millet and Buckwheat and % of HHs Cultivating Them **B 7**

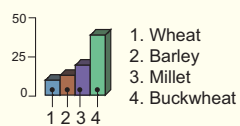
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Availability in kg/HH

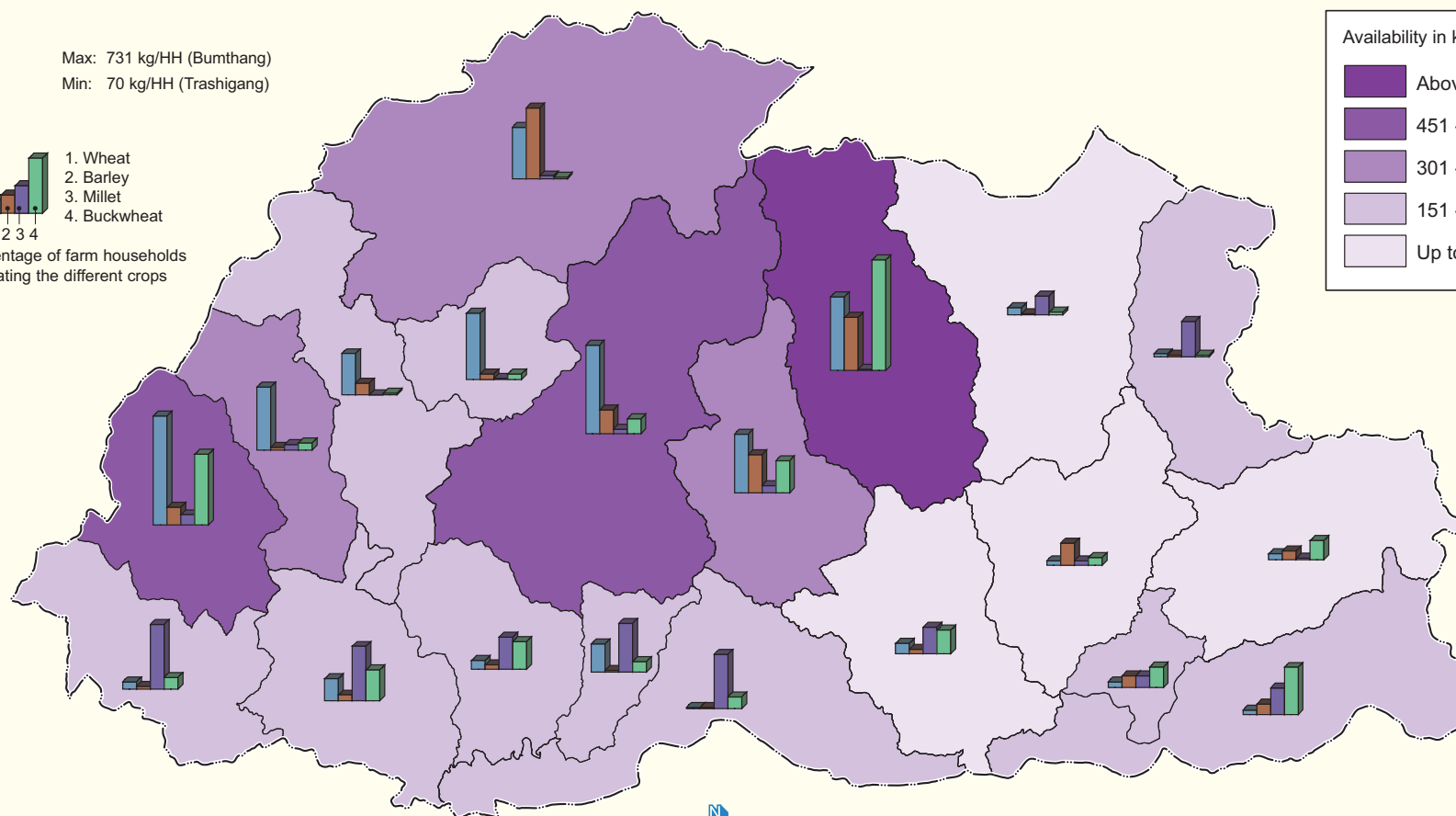
- Above 600
- 451 - 600
- 301 - 450
- 151 - 300
- Up to 150

Max: 731 kg/HH (Bumthang)

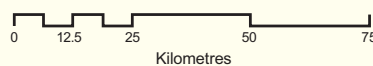
Min: 70 kg/HH (Trashigang)



Percentage of farm households cultivating the different crops



Scale 1:1,500,000



Base Map: Department of Survey and Land Records,
Ministry of Agriculture
Data Source: RNR Statistics 2000, Ministry of Agriculture



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Production of Paddy and Availability per Household

Table B.8 shows the total production of paddy in 2000 in each district in tonnes (t) and the total availability per farm household (total production divided by number of farm households), with the districts listed in descending order of availability per household. The map shows the districts ranked according to total production, and the superimposed values show the availability per household in kg.

In 2000, the total national production of paddy was 68,573t; with the highest quantity produced in Sarpang (9,382t), followed by Punakha and Samtse. Punakha had by far the highest availability of paddy per household (4109 kg), almost twice the value of the next district on the list, and Pemagatshel, Ha, and Bumthang the lowest.

Table B.8

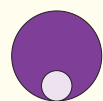
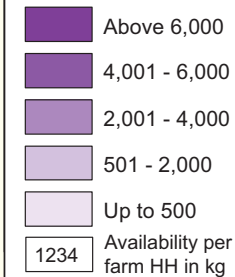
District	Total Annual Production (t')	No. of Farming HH	Availability kg/HH	District	Total Annual Production (t')	No. of Farming HH	Availability kg/HH
Punakha	8,740	2127	4109	Zhemgang	1,706	1758	968
Samtse	8,265	3690	2240	Yangtse	2,552	3291	775
Sarpang	9,382	4223	2222	Gasa	303	464	653
Wangdue	5,860	2899	2021	Chhukha	2,166	3437	630
Thimphu	3,015	1569	1921	S/Jongkhar	3,043	5008	608
Paro	4,671	2669	1750	Trashigang	3,617	7971	454
Tsirang	4,909	3005	1634	Mongar	1,445	4920	294
Dagana	3,663	2679	1367	Ha	323	1110	291
Trongsa	1,850	1380	1340	Bumthang	80	1390	58
Lhuntse	2,918	2318	1259	Pemagatshel	71	2657	27
				Bhutan Total	68,573	58,565	1170
* 1t = 1000kg							

Production of Paddy and Availability per Household

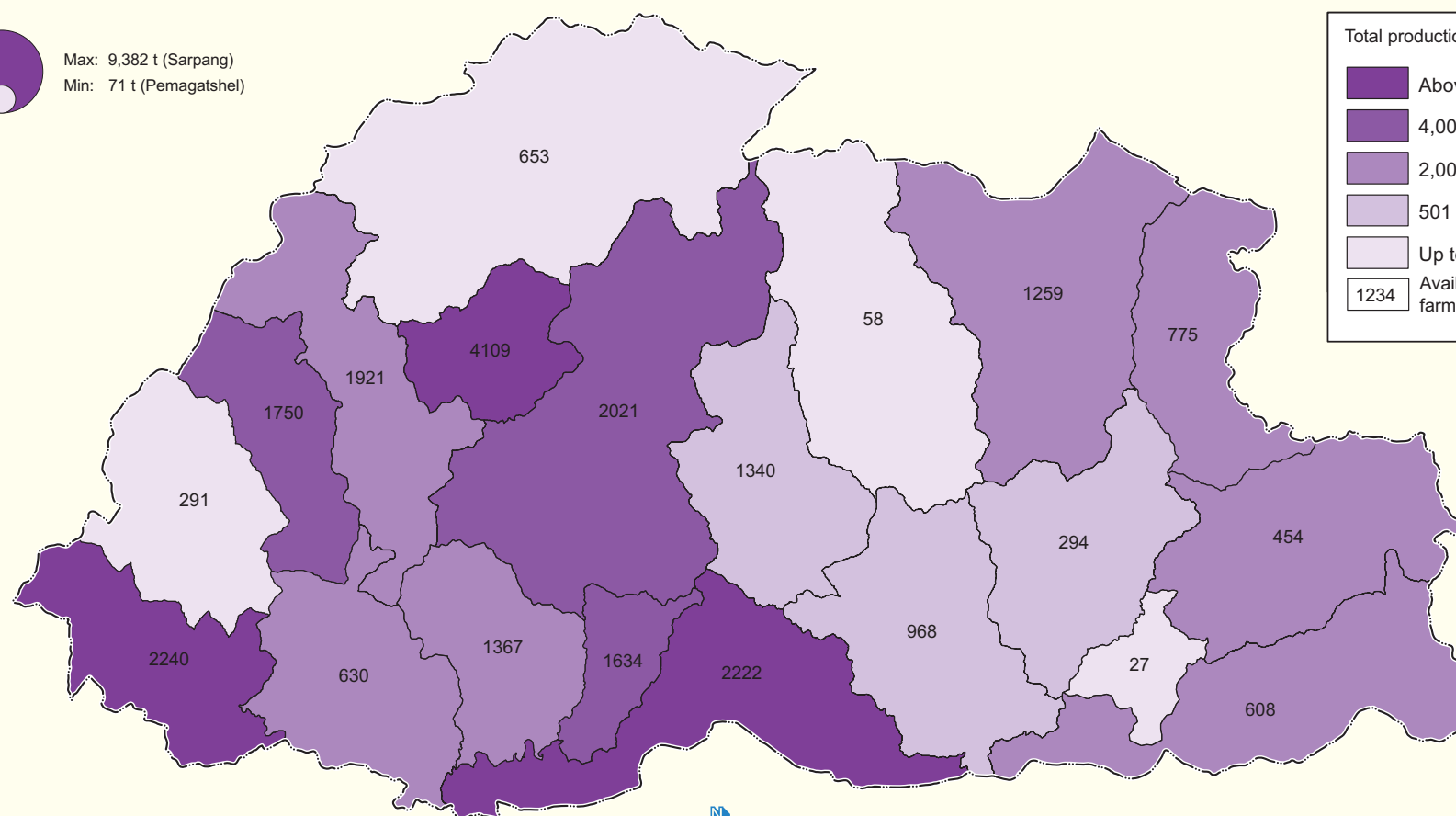
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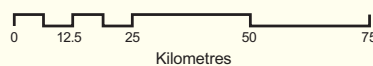
Total production in tonnes



Max: 9,382 t (Sarpang)
Min: 71 t (Pemagatshel)



Scale 1:1,500,000



Base Map: Department of Survey and Land Records,
Ministry of Agriculture
Data Source: RNR Statistics 2000, Ministry of Agriculture



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Production of Maize and Availability per Household

Maize is the most significant cereal crop after paddy especially in the eastern and central parts of Bhutan. Table B.9 shows the total production of maize in 2000 in each district in tonnes (t) and the total availability per farm household (total production divided by number of farming households), with the districts listed in descending order of availability per household. The map shows the districts ranked according to total production and the superimposed values show the availability per household in kg.

In 2000, maize was produced in all districts except Gasa. The total national production of maize was 77,000t; with the highest quantity produced in Trashigang (>13,000t) followed by Samdrup Jongkhar and Mongar. Samdrup Jongkhar had the highest availability of maize per household (2497 kg), and Paro and Gasa the lowest.

Table B.9

District	Total Annual Production (t)	No. of Farming HHs	Availability (kg/HH)	District	Total Annual Production (t)	No. of Farming HHs	Availability (kg/HH)
S/Jongkhar	12,507	5,008	2,497	Trashigang	13,296	7,971	1,668
Mongar	10,565	4,920	2,147	Dagana	4,377	2,679	1,634
Zhemgang	3,317	1,758	1,887	Sarpang	6,478	4,223	1,534
Samtse	6,656	3,690	1,804	Lhuntse	3,158	2,318	1,362
Pemagatshel	4,528	2,657	1,704	Tsirang	3,758	3,005	1,251
Trongsa	622	1,380	451				
Ha	205	1,110	184				
Punakha	305	2,127	143				
Wangdue	193	2,899	67				
Thimphu	96	1,569	61				
Bumthang	64	1,390	46				
Paro	27	2,669	10				
Gasa	5	464	11				
Bhutan Total					77,298	58,565	1,320

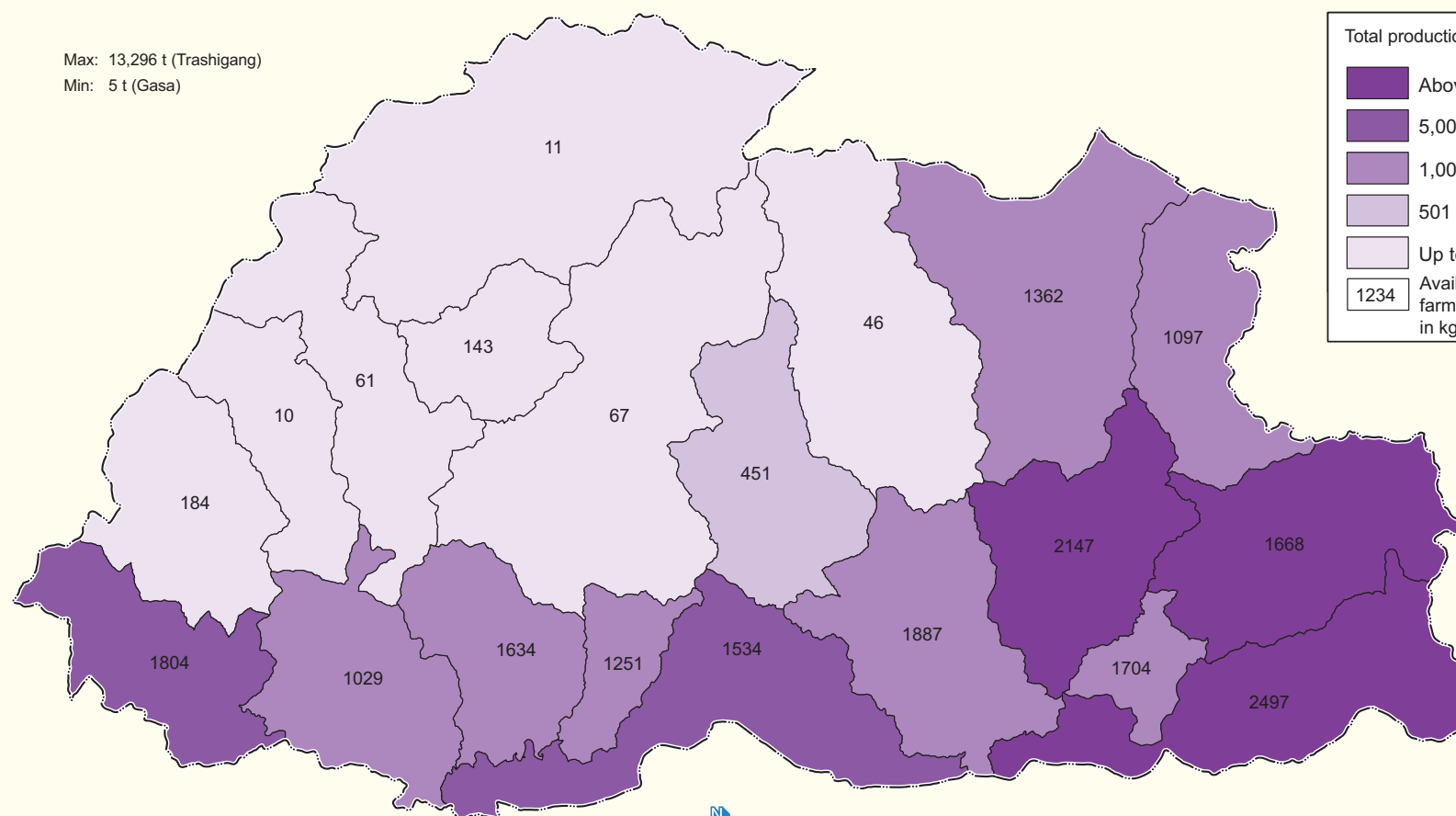
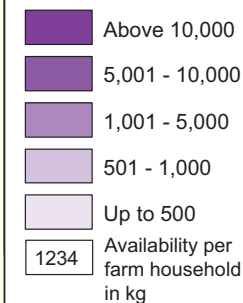
Production of Maize and Availability per Household

B 9

Max: 13,296 t (Trashigang)
Min: 5 t (Gasa)

LEGEND

Total production in tonnes



Scale 1:1,500,000



Base Map: Department of Survey and Land Records,
Ministry of Agriculture
Data Source: RNR Statistics 2000, Ministry of Agriculture



PPD, MOA



Production of Wheat, Barley, Millet and Buckwheat and Availability per Household

Although wheat, barley, millet, and buckwheat are generally considered secondary to paddy and maize, these cereals also play an important role in the nation's overall food self-sufficiency. In many parts of Bhutan, these crops are consumed as staple foods in different forms.

Table B.10 shows the total production of wheat, barley, millet, and buckwheat in 2000 in each district in tonnes (t) and the total availability per farm household (total production divided by number of farming households), with the districts listed in descending order of availability per household. The map shows the districts ranked according to total production in tonnes. The superimposed pie charts show the proportion of total production from the different grains and indicate differences in the total production per district. The superimposed values show the availability per household in kg..

In 2000, the total production of wheat was 4,352t, barley 1,735t, millet 3,793t, and buckwheat 2,887t. Wangdue led in wheat production (977t), Mongar in barley (407t), Sarpang in millet (684), and Samdrup Jongkhar in buckwheat (713t). Samdrup Jongkhar produced the maximum total amount of these cereals (1,360t) followed by Wangdue, Samtse, and Chhukha; and Gasa the lowest (139t). Bumthang and Ha districts had the maximum per household availability, and Trashigang had the lowest.

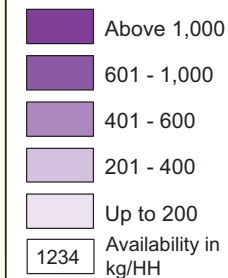
Table B.10

District	Annual Production (t)					Availability (kg/HH)	District	Annual Production (t)					Availability (kg/HH)
	Wheat	Barley	Millet	Buckwheat	Total			Wheat	Barley	Millet	Buckwheat	Total	
Bumthang	279	210	7	435	932	670	Thimphu	286	55	<1	2	343	219
Ha	395	19	29	166	609	548	Sarpang	16	25	684	54	778	184
Wangdue	977	167	9	95	1,249	431	Dagana	43	36	244	152	475	177
Trongsa	207	138	13	86	444	322	Pemagatshel	44	136	116	166	462	174
Chhukha	316	41	396	290	1,042	303	Zhemgang	43	23	96	113	275	157
Gasa	70	69	<1	<1	140	301	Tsirang	175	8	246	33	462	154
Paro	697	31	14	44	786	295	Trashigang	21	18	464	5	508	154
Samtse	86	27	770	123	1,006	273	Mongar	59	407	39	78	584	119
S/Jongkhar	52	136	459	713	1,360	271	Lhuntse	44	6	185	7	242	104
Punakha	452	21	7	32	513	241	Trashigang	91	163	14	291	558	70
Bhutan Total								4,352	1,735	3,793	2,887	12,767	218

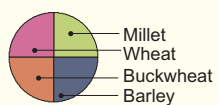
Production of Wheat, Barley, Millet and Buckwheat and Availability per Household

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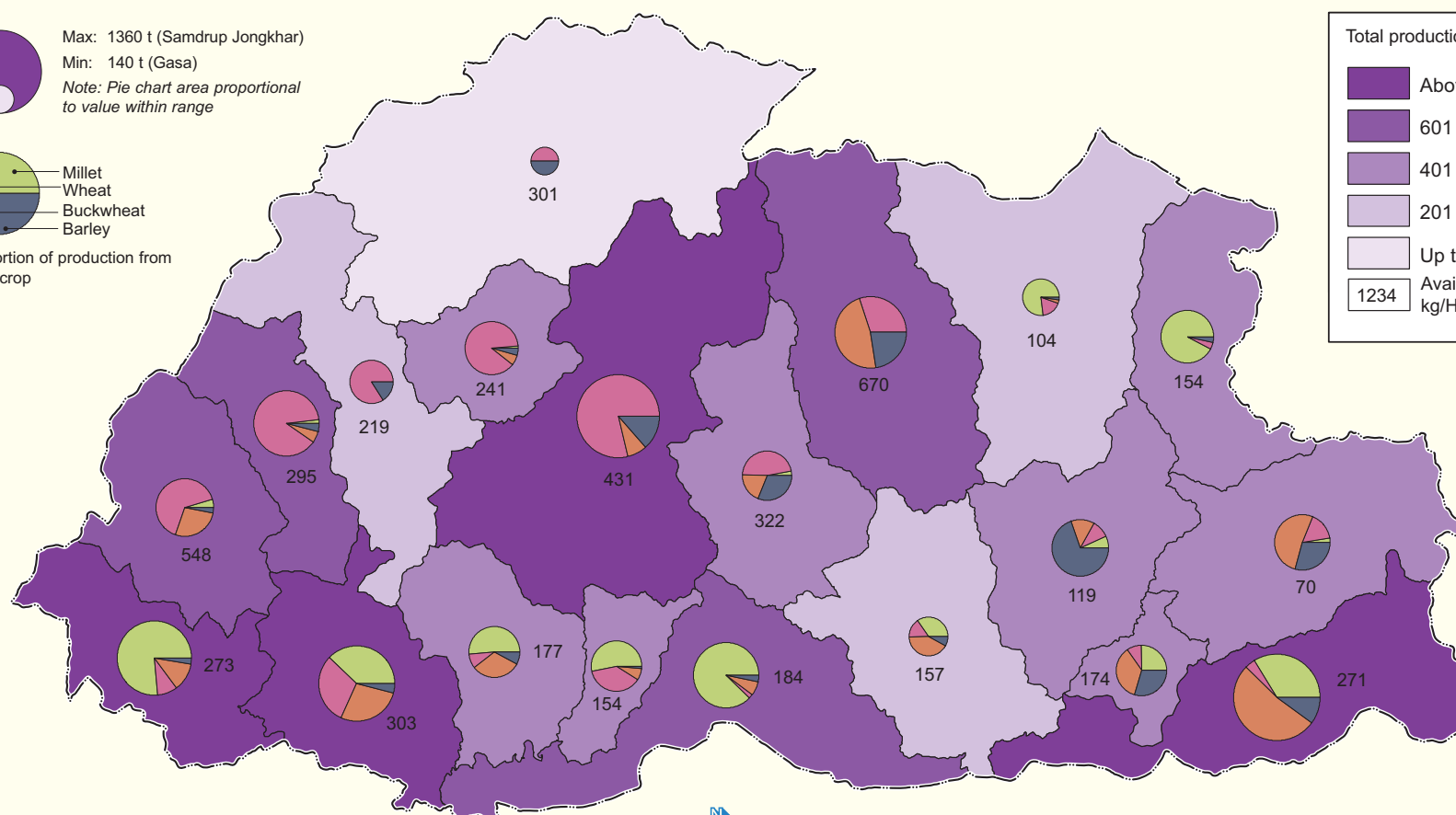
Total production in tonnes



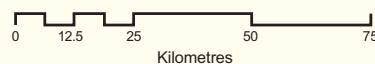
Max: 1360 t (Samdrup Jongkhar)
Min: 140 t (Gasa)
Note: Pie chart area proportional to value within range



Proportion of production from each crop



Scale 1:1,500,000



Base Map: Department of Survey and Land Records,
Ministry of Agriculture
Data Source: RNR Statistics 2000, Ministry of Agriculture



PPD, MOA



Production of Vegetables and Availability per Household

A variety of vegetables are cultivated in the country; most are produced for household consumption on a subsistence basis but a few are also sold in the market. With the exception of potato and chilli, cultivation of vegetables on a commercial scale is still limited. Potato and chilli constitute the major vegetable crops providing cash income. Vegetables cultivated on a lesser scale include radish, turnip, beans, carrot, cabbage, cauliflower, tomato, ginger, garlic, and onion.

Table B.11 shows the total production of potatoes, chilli, and other vegetables in 2000 in each district in tonnes (t), and the total availability per farm household (total production divided by number of farming households), with the districts listed in descending order of availability per household. The map shows the districts ranked according to total production of all vegetables. The superimposed pie charts show the proportion of production from the different vegetables and indicate differences in the total production per district. The superimposed values show the availability per household in kg.

In 2000, the total production of potato was 35,340t, of chilli 2,849t, and of other vegetables 11,401t. Trashigang led in potato production followed by Wangdue and Chhukha; and Paro led in chilli production followed by Wangdue and Punakha. Bumthang had the overall highest household availability of vegetables.

Table B.11

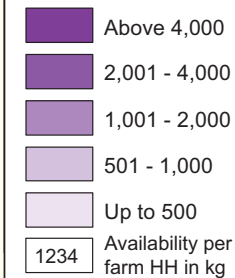
District	Annual Production (t)				Availability (kg/HH)	District	Annual Production (t)				Availability (kg/HH)
	Potato	Chilli	Others	Total			Potato	Chilli	Others	Total	
Bumthang	3,778	29	295	4,102	2951	Tsirang	1,306	48	322	1,676	558
Wangdue	5,871	365	1,758	7,994	2758	Punakha	166	363	261	790	371
Paro	3,566	708	957	5,231	1960	Trashy Yangtse	881	136	142	1,159	352
Ha	1,323	11	840	2,173	1958	Samtse	97	5	903	1,005	272
Chhukha	4,257	151	958	5,366	1561	Lhuntse	332	151	146	630	272
Thimphu	1,419	176	687	2,282	1454	S/Jongkhar	379	45	774	1,198	239
Trashigang	7,189	238	1,025	8,451	1060	Zhemgang	85	28	250	362	206
Pemagatshel	1,423	74	312	1,809	681	Sarpang	369	23	477	869	206
Trongsa	596	99	202	897	650	Dagana	231	32	283	546	204
Mongar	2,132	154	780	3,067	623	Gasa	37	12	31	80	173
						Bhutan Total	35,340	2,849	11,401	49,687	848

Production of Vegetables and Availability per Household

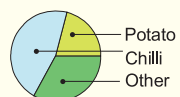
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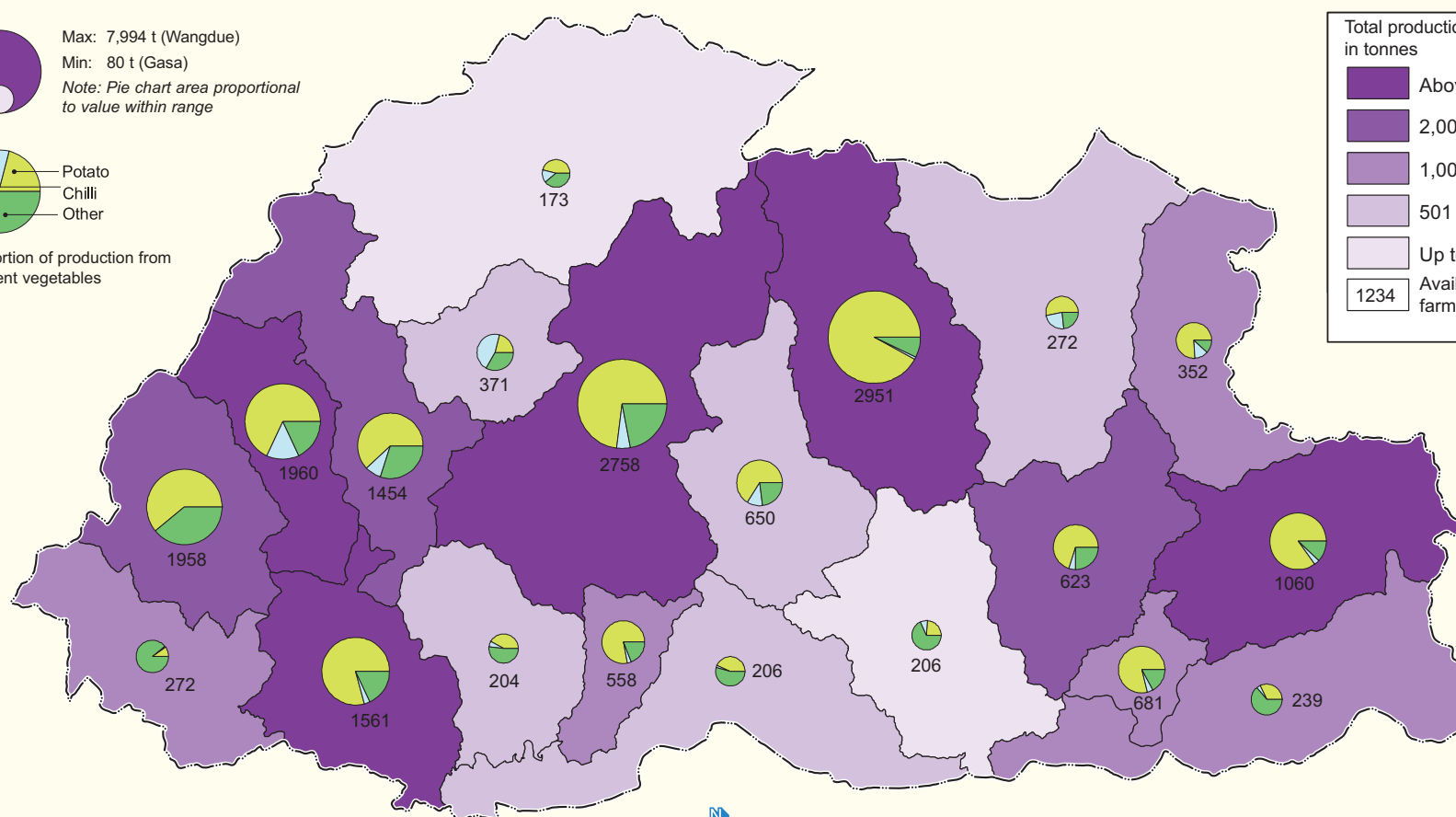
Total production
in tonnes



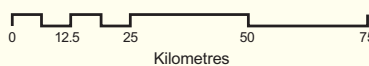
Max: 7,994 t (Wangdue)
Min: 80 t (Gasa)
Note: Pie chart area proportional
to value within range



Proportion of production from
different vegetables



Scale 1:1,500,000



Base Map: Department of Survey and Land Records,
Ministry of Agriculture
Data Source: RNR Statistics 2000, Ministry of Agriculture



PPD, MOA



Yields of Paddy, Maize, Wheat and Barley

Average yields were estimated from total production of a crop in a district divided by the total area designated as being used to grow that crop. These figures must be used with some caution since, for example, land designated as used for a particular crop could have been fallow during the census year, and some land designated to grow one crop may also have been used to grow another. The values are thus to be viewed as rough estimates to indicate relative differences between districts rather than absolute values.

Table B.12 shows the estimated yields of paddy, maize, wheat, and barley in each district, listed in the order of paddy yield. Districts with higher paddy yield also do comparatively better in terms of food self-sufficiency, thus paddy yield gives a good indication of the relative well-being of a district. The map shows the districts ranked according to paddy yield. The superimposed bar charts show the average yield of each crop.

The estimated overall yield for paddy (1,449 kg/acre) was higher than for any other cereal crop, with Punakha and Thimphu having the highest district yields (1,818 and 1,790 kg/acre respectively). The yield of maize about 1000 kg/acre, with Trashhi Yangtse, Pemagatshel and Trashigang having the highest yields. The yields of wheat and barley were quite low at 376 kg/acre and 469 kg/acre respectively.

Table B.12

District	Yield (kg/acre)				District	Yield (kg/acre)			
	Paddy	Maize	Wheat	Barley		Paddy	Maize	Wheat	Barley
Punakha	1,818	1,026	368	534	Trongsa	1,370	933	399	477
Thimphu	1,790	1,266	470	709	Tsirang	1,367	664	280	156
Trashhi Yangtse	1,660	1,477	436	620	Sarpang	1,355	682	344	422
Wangdue	1,637	835	434	416	Mongar	1,331	1,383	603	556
Trashigang	1,575	1,426	399	505	Dagana	1,314	705	251	447
Lhuntse	1,574	1,169	492	380	Zhemgang	1,312	1,048	429	494
Paro	1,509	983	317	274	Ha	1,231	769	335	341
S/Jongkhar	1,502	1,371	533	424	Chhukha	1,229	656	505	372
Pemagatshel	1,481	1,464	621	640	Bumthang	1,177	1,055	333	421
Gasa	1,422	0	539	674	Samtse	1,173	601	197	181
Bhutan Total						1,449	1,005	376	469

Yields of Paddy, Maize, Wheat and Barley

