



ACCELERATING SUSTAINABLE AGRICULTURE PROGRAM



Logar Province Agricultural Profile 2008



Prepared by the National Agriculture Information System (NAIS)/AgNet
for the Afghan Ministry of Agriculture, Irrigation and Livestock (MAIL)

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Agriculture

Profile and Data

In Logar Province



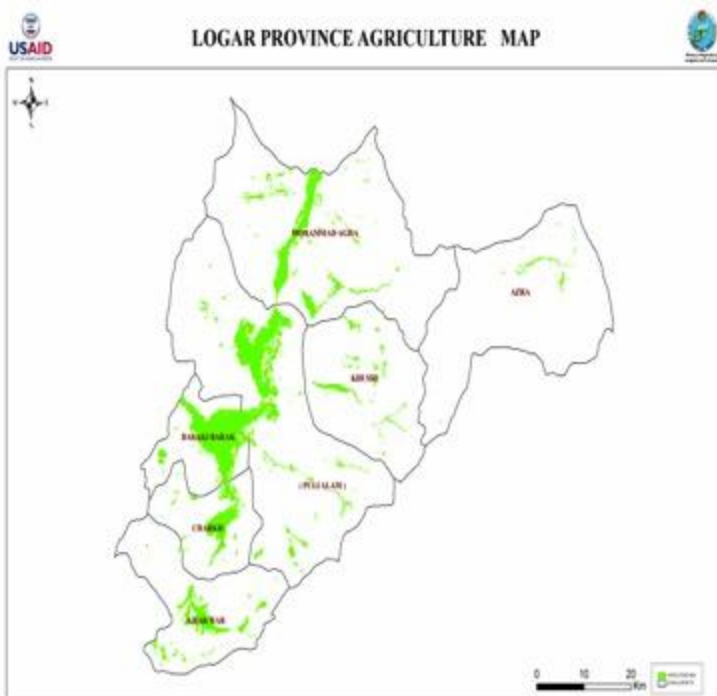
Logar Brief

Logar province is located in the central zone of Afghanistan. It belongs to the Kabul River basin and is located between 33.60-34.37 degrees latitude and 68.71-69.88 degrees longitude. Kabul and Nangarhar are located to the north of the province, Paktia to the southeast, and Wardak and Ghazni to the west. Logar has a total of 655 villages and based on 2008 census data, there is an estimated population of 411,845 people, most of whom are former Kochi nomads. Logar consists of seven districts that encompass 4,410,278 square kilometer of which 32,693.01 are used for agricultural purposes. The province is best known for producing corn, yogurt and wool.

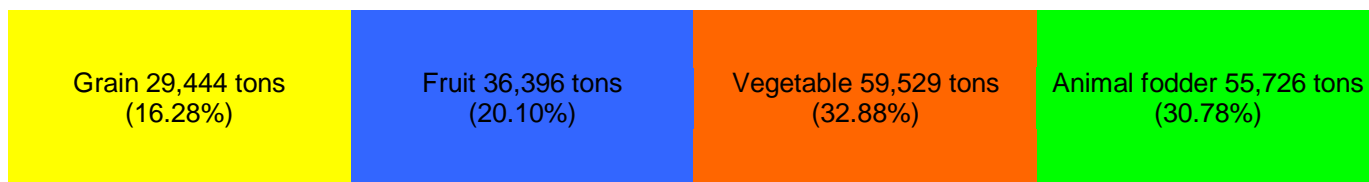
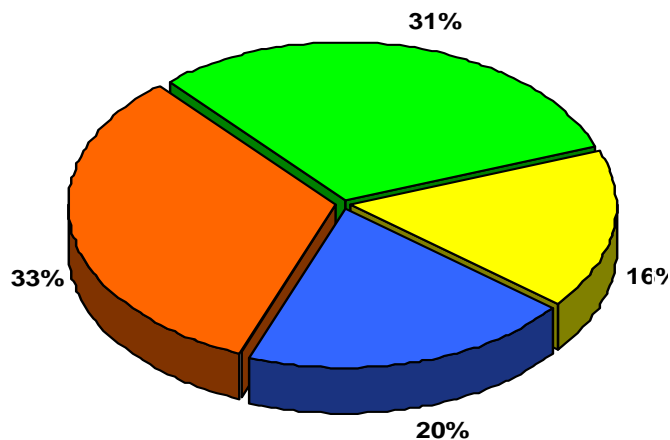
During 2008, Logar produced 31 different crops on 35,602 hectares of land (31 percent of total area). 60 percent of the cultivated land is located in 5 of the 7 districts, mostly in the western half of the province because of the fertile soil along the Wardak and Maidan Rivers.

Logar Farmers raise livestock in all districts to satisfy market demands in Kabul. The districts of Logar are:

- Barakibarak
- Charkh
- Khoshi
- Kharwar
- M. Agha
- Azroo
- Puli Alam



The total 2008 crop production surveyed in Logar province was 181,057 metric tons (MT), comprising vegetables (32.88 percent) animal fodder (30.59 percent), fruit (20.02 percent), grain (16.26 percent) and industrial crop (0.02 percent). The total market value of Logar’s 2008 of agricultural output was estimated at \$63,054,325 with no significant value added processing



Charkh district ranks highest in terms of agricultural output, growing 35 percent of all products in the province (see annex 2). Barakibarak district held the second position (28 percent) followed by Puli Alam (20 percent) of total crop production. While Charkh district produced high levels of fruits and vegetables in 2008, farmers in Puli Alam grew large volumes of grain in the province.

Research Methodology

This report was prepared based on information provided by AgNet/NAIS system. In 2007 and 2008 AgNet Conducted two separate surveys (1) district profile survey and (2) agricultural statistic survey in 19 provinces of Afghanistan with the support of ASAP and MAIL at district level. During a period of 4 months each, more than 50 surveyors collected information related to the number of hectares land cultivated types of products produced number of livestock, crop calendar, sources of water and much more agricultural information. The information presented in this report is based exclusively in the area surveyed, not in the total farm land of the provinces. The AgNet/NAIS data base for Logar is the most accurate database available in the country in spite there is not estimation regarding the level of exactitude of the information. All data related to harvest amounts was checked in July 2008 by ASAP personnel (Prof. A. Ghani Taj Agricultural Information Specialist and former professor of Kabul University and Ahmad Jawid Abid Survey and Data Assistant) by comparing the national average productivity level of each products. Crop value information was determined on wholesale price in Logar and collected by Logar AgNet officer Mr. A. Basir and approved by deputy director of Logar Provincial Agriculture department Mr. Said M. Easa in October 2008.

Grains

Logar's 2008 annual grain production surveyed was approximately 29,444 MT with a representing market value of \$21,285,806. Of this total almost three fourths (72.4 percent) consisted of wheat, which was valued at \$13.7 million. The remaining 27.6 percent comprised other grain crops worth \$7.5 million.

Grain	Tons	Value USD \$
Wheat	20,819	\$ 13,740,677
Barely	937	\$ 431,037
Maize	2,628	\$ 1,366,287
Mung bean	34	\$ 26,784
Pea	38	\$ 34,196
Red bean	4,988	\$ 5,686,825
Grand Total	29,444	\$ 21,285,806

Wheat is grown in all districts of Logar, as listed below and makes up 72.4 percent of all grain produced in the province. Red bean and maize are the second and third most produced grains in Logar (16.9 percent and 8.6 percent respectively) and reached a combined 7,616 MT in 2008. Figures presented in the table below are in kg.

	Wheat	Barely	Maize	Mung bean	Pea	Red bean
Pule Alam	7,021,315	310,800	946,660	1,470	-	583,100
Baraki Barak	3,518,200	-	168,000	-	-	4,200,000
Charkh	2,712,500	105,000	504,000	-	-	70,000
Kharwar	3,994,200	267,750	673,750	-	-	26,250
Khoshi	150,003	25,998	112,000	32,010	37,995	15,994
Mohammad Agha	2,064,990	227,490	97,066	-	-	23,099
Azroo	1,358,000	-	126,000	-	-	70,000
Total	20,819,208	937,038	2,627,476	33,480	37,995	4,988,443

Fruits

Logar's 2008 annual fruit production was estimated at 36,396 MT and generated over \$15.11 million on the market. Grapes represent 65.2 percent of all fruit production in the province and had the highest market value (\$294,000). Apples were the second most produced fruit (10,466 MT) but third behind pine nuts (only 13 MT) in terms of profit earned by Logar farmers.

Fruits	Tons	Value USD \$
Grape	23,747	\$ 294,000
Apple	10,466	\$ 1,893,528
Almond	131	\$ 388,864
Apricot	1,720	\$ 8,680,000
Walnut	168	\$ 1,642,200
Pine nuts	13	\$ 2,170,560
Melon	61	\$ 20,825
Water Melon	84	\$ 11,760
Other Fruit	6	\$ 11,648
Total	36,396	\$ 15,113,385

Charkh, Pulialam and Mohammad Agha districts are the main grape growing districts of Logar province (see table below). Grape production in these districts made up 65 percent of the total amount of fruits grown in Logar in 2008. Apples, specifically Red Delicious and Yellow Golden are the second most produced fruit in Logar, amounting to 29 percent of all fruits and totaling 36.25 thousand MT in 2008. Azroo was the only district in the province where significant amounts of walnuts and pine nuts were grown. Figures in the following chart are in kg.

	Grape	Apple	Almond	Apricot	Walnut	Pine nuts	Melon	W. Melon	Other Fruit
Pule Alam	1,164,800	609,000	21,175	161,700	-	-	61,250	84,000	-
Baraki Barak	-	560,000	-	-	-	-	-	-	-
Charkh	22,512,000	9,016,000	2,100	728,000	-	-	-	-	3,360
Kharwar	-	42,000	-	10,500	-	-	-	-	2,800
Khoshi	-	60,000	60,000	120,016	-	-	-	-	-
Mohammad Agha	69,996	178,500	47,250	231,000	-	-	-	-	-
Azroo	-	-	-	469,000	168,000	12,600	-	-	-
Total	23,746,796	10,465,500	130,525	1,720,216	168,000	12,600	61,250	84,000	6,160

Vegetables

Logar farmers were surveyed to have grown approximately 59,529 MT of 11 different vegetables in 2008, valuing at \$12.4 million. Tomatoes, onions and potatoes represent 83.58 percent of the total vegetable production, amounting to over 57,500 MT. Significantly smaller volumes of eggplant and spinach are produced.

Vegetables	Tons	Value USD \$
Potato	17,361	\$ 3,819,385
Onion	16,827	\$ 3,365,491
Tomato	24,699	\$ 4,933,999
Eggplant	258	\$ 72,226
Spinach	61	\$ 12,150
Other Veg	323	\$ 232,644
Total	59,529	\$ 12,435,895

Potato, onion and tomato (83 percent) of total vegetable produced almost in all districts of Logar. Mohammad Agha district produced 65 percent of the province's onions and was the only district where garlic was grown. Seventy-five percent of Logar's tomatoes were grown in Charkh district, which together with Pulialam district produced 81.5 percent of the Logar's potatoes. Figures in the following chart are in kg.

	Potato	Onion	Tomato	Eggplant	Spinach	Other Veg
Pule Alam	6,510,000	4,718,700	5,712,000	193,550	19,500	57,820
Baraki Barak	120,000	210,000	80,000	1,400	26,250	-
Charkh	7,350,000	112,000	18,480,000	-	-	-
Kharwar	252,000	126,000	254,800	63,000	-	-
Khoshi	48,000	32,004	31,995	-	15,000	15,000
Mohammad Agha	2,398,341	10,920,000	-	-	-	250,000
Azroo	682,500	708,750	140,000	-	-	-
Total	17,360,841	16,827,454	24,698,795	257,950	60,750	322,820

Fodder & Industrial Crops

Animal fodder and Industrial products surveyed in Logar province in 2008 totaled 55,700 MT and worth more than \$11 million. Clover and Lucerne products made up almost all (98 percent) of such crops.

Fodder and Industrial	Tons	Value USD \$
Alfalfa	12,552	\$ 2,510,316
Clover	43,141	\$ 8,628,250
Sugar beet	14	\$ 5,600
Flax	18	\$ 87,500
Mustard	1	\$ 1,400
Total	55,726	\$ 11,233,066

Farmers in Baraki Barak district grew a high volume of alfalfa (89 percent) as well as clover (34 percent) during 2008. Alfalfa and clover are common sources of animal fodder that are planted throughout Logar as well as most Afghan provinces. Currently, industrial crops are only being grown for research and demonstration purposes in the province. Figures in the following chart are in kg.

	Alfalfa	Clover	Sugar beet	Flax	Mustard
Pule Alam	105,000	9,139,200	14,000	17,500	700
Baraki Barak	11,200,000	31,500,000	-	-	-
Charkh	448,000	2,100,000	-	-	-
Kharwar	327,600	100,800	-	-	-
Khoshi	259,980	230,000	-	-	-
Mohammad Agha	176,000	24,000	-	-	-
Azroo	35,000	47,250	-	-	-
Total	12,551,580	43,141,250	14,000	17,500	700

Livestock

Farmers raise 9 types of household livestock in the province (See annex –V). Most people living in Logar as well as other Afghanistan provinces are subsistence farmers and each household keeps a cow and few sheep/goat. As a result, there is a great need to have ample supplies of fodder to feed their livestock and each farmer grows one or two plots of clover and alfalfa.

Province	District	Total livestock	Total Poultry
Logar	Charkh	17,461	6,720
	Barakibarak	25,487	11,200
	Kharwar	8,709	3,360
	Pulialam	42,151	16,800
	Azra	10,206	3,920
	M. Agha	26,337	8,400
	Khoshi	14,478	5,600
Total		144,829	56,000

Household livestock present in Logar is 144,829, not including 56,000 chickens, ducks and turkeys. Pulialam and Mohammad Agha districts raise 47 percent of livestock and the remaining 53 percent is kept in the province's other 5 districts. Dairy cows are the dominant household livestock in Logar districts. The number of donkeys is higher than the number of dairy cattle in almost all districts which indicates that there are many transportation and communication problems existing in Logar province.

Animals	Cow	Sheep	Goat	Donkey	camel	Horse	Total	Chicken	Turkey	Ducks	Total
Heads	55,324	51,532	12,000	22,828	2,600	545	144,829	52,000	2,200	1,800	56,000
Percentage	38.20	35.58	8.29	15.76	1.80	0.38	100%	92.86	3.93	3.21	100%

Annex 1

Logar province crop surveyed by Hec, Tons and USD

	Crops	Hectares	Metric Tons	Value USD \$
1	Wheat	23,906	20,819	13,740,677
2	Barely	663	937	431,037
3	Maize	1,191	2,627	1,366,287
4	Mung bean	16	33	26,784
5	Pea	17	38	34,196
6	Red bean	1,893	4,988	5,686,825
7	Potato	919	17,361	3,819,385
8	Onion	696	16,827	3,365,491
9	Tomato	774	24,699	4,933,999
10	Eggplant	12	258	72,226
11	Okra	3	3	1,575
12	Cucumber	2	21	12,600
13	Spinach	13	61	12,150
14	Garlic	1	250	210,000
15	Carrot	5	20	2,835
16	Leek	1	11	4,200
17	Turnip	8	18	1,434
18	Grape	1,139	23,747	14,248,078
19	Apple	439	10,466	2,302,410
20	Almond	73	131	574,310
21	Apricot	416	1,720	688,086
22	Walnut	60	168	268,800
23	Pistachio	45	13	75,600
24	Alfalfa	573	12,552	2,510,316
25	Clover	2,692	43,141	8,628,250
26	Sugar beet	1	14	5,600
27	Flax	20	18	87,500
28	Mustard	1	1	1,400
29	Melon	7	61	20,825
30	Water melon	8	48	11,760
31	Other Fruits	8	6	4,189
Grand Total		35,602	181,057	\$ 63,148,825

ANNEX 2

Ranking of Logar Province districts by tons surveyed annually

District	Tons	Hectares	Value USD \$	% total tons
1 Pule Alam	37,453	8,000	\$ 13,404,322	20.68%
2 Baraki Barak	51,584	7,829	\$ 15,950,614	28.48%
3 Charkh	64,143	5,375	\$ 23,818,875	35.42%
4 Kharwar	6,141	6,804	\$ 3,389,876	3.39%
5 Khoshi	1,246	524	\$ 693,140	0.69%
6 Mohammad Agha	16,708	5,623	\$ 4,887,548	9.23%
7 Azroo	3,817	1,447	\$ 1,909,950	2.11%
Grand Total	181,092	35,602	\$ 64,054,325	100%

Annex 3 Harvest seasons for Logar

Agricultural crops surveyed

Crops	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Tons
Wheat													20,819
Barely													937
Maize													2,627
Mung bean													33
Pea													38
Red bean													4,988
Potato													17,361
Onion													16,827
Tomato													24,699
Eggplant													258
Okra													3
Cucumber													21
Spinach													61
Garlic													250
Carrot													20
Leek													11
Turnip													18
Grape													23,747
Apple													10,466
Almond													131
Apricot													1,720
Walnut													168
Pistachio													13
Alfalfa													12,552
Clover													43,141
Sugar beet													14
Flax													18
Mustard													1
Melon													61
Water melon													48
Other Fruits													6

Annex 4

DISTRICT PROFILE:		Puli Alum	
1	DEMOGRAPHICS		7
	Region:	Northern	Water
	Province:	Logar	Rain fed
	District:	Puli Alum	Kariz
	Villages:	141	Canals
	Households:	13,461	Springs
	Estimated population:	107,693	Bored wells, #
2	Land		Access/irrigated water
	Sharecroppers, %	10%	
	Arable land, jeribs	86,000	8
	Arable land, hectares (/5)	17,200	Infrastructure
	Grazing land, jeribs (whole prov)	0	Access/drinking water
	Geographic area, Km2	1117941	Schools
	Landowner, %	60	Electricity costs, Afs/KWH
	Irrigated land area, hectares	14,000	Cell phone access
	Rainfed land in use,hectars	3,200	Health clinic, #
3	Primary Crops		VFUs, #
	Spring wheat, hectares	2,062	9
	Fall wheat, hectares	3,040	Livelihood
	Barley, hectares	222	Agro-horticulture sector, %
	Maize, hectares	331	Livestock sub-sector, %
	Red bean, hectares	238	Bussiness and Trade %
	Grap, hectares	128	Government and NGO %
	Alfa alfa, hectares	15	Daily Labor %
	Other industrial crops, hectares	22	10
	Other vegetables,hectares	744	Small Enterprises
	Other fruits,hectares	93	General shops, #
4	Livestock		Food service,#
	Livestock owners, %	10	Flour mills,#
	Dairy cows, #	9345	Shoe repair,#
	Beef cattle & Draught oxen, #	8,634	Blacksmith,#
	Sheep & Goats, #	19,060	Oil extraction,#
	Donkey, #	4,204	Butcher shops, #
	Horses, #	59	Other Shops
	Checkens & Turkey, #	16,800	11
	Camels, #	780	Agricultural Facilities
	Kuchi, (families),#		Artificial Insimination
	Kuchi sheep, #		Rentable Ag Machinery
	Kuchi goats, #		Improved wheat seed
	Camels, #		Fruit Nurseries, #
	Kuchi other, #		Credit facility
5	Transportation		Poultry farm, #
	Distance to center, km	20	Agrochemicals,
	Time to center, minutes	30	Cool storage, #
	Cost to center, Afs	100	Green houses, #
	Truck cost to center, Afs	400	12
	District roads	ved&Unpaved	Household (HH) Indices
	Provincial roads	Paved	Arable land/HH, jeribs
	Accessibility	12 months	Grazing land/HH, jeribs
6	Markets		Irrigated land/HH, jeribs
	Provincial	yes	Rainfed land/HH, jeribs
	District, General, day		Total livestock/HH, #
	District, livestock, day		Sheep&goats/HH, #
	Traders/assemblers	yes	Poultry/HH, #
			13
			Checks
			Household/village
			Population/ HH
			School/ village
			No. of Bored wells/ village
			No. of Enterprize/village

Annex 5

land use in Logar provinces

Province	District	Village	Rainfed Land	Irrigated Land	Total land	Orchards &viens	Vegetable and Furrows crops	Cereal Crops	Forage crops	Forest land	Pasture land	Non-areble land	Mountains	Total Land area
Logar	Baraki barak	99	4,000	11,000	15,000	12	2,000	9,488	3,500	-	-	1,572	-	16,572
	Pulialam	141	3,200	14,000	17,200	835	2,864	10,703	2,798	-	-	3,088	-	20,288
	Charkh	92	2,500	3,858	6,358	1,505	793	3,958	102	-	-	671	-	7,029
	Khoshi	70	3,743	1,294	5,037	350	174	4,246	267	-	-	4,480	-	9,517
	M agha	165	4,000	11,000	15,000	594	550	13,020	837	-	-	3,000	-	18,001
	Kharwar	40	12,000	3,000	15,000	7	54	14,819	110	-	-	1,140	-	16,130
	Azra	48	1,510	1,549	3,060	127	120	2,788	25	-	-	440	-	3,500
Total		655	30,953	45,701	76,654	3,430	6,555	59,022	7,639	-	-	14,391	-	91,036

Annex 6

Number of Livestock and Poultry in Logar Province

Province	Districts	Livestock statistics									Poultry					
		Oxen	Cow	Sheep	Goats	Horse	Donkey	Camel	Mule	Total	Cock	Hens	Chicken	Duck	Turkey	Total
Logar	Charkh	3,453	3,738	6,184	1,440	40	2,267	312	27	17,461	1,200	3,600	1,440	216	264	6,720
	Barakibarak	5,756	2,630	10,306	2,400	50	3,779	520	46	25,487	2,000	6,000	2,400	360	440	11,200
	Kharwar	1,726	1,826	3,092	720	56	1,133	156	-	8,709	600	1,800	720	108	132	3,360
	Pulialam	8,634	9,345	15,460	3,600	59	4,204	780	69	42,151	3,000	9,000	3,600	540	660	16,800
	Azra	2,014	2,180	3,607	840	45	1,322	182	16	10,206	700	2,100	840	126	154	3,920
	M. Agha	3,417	4,672	7,730	1,800	60	8,234	390	34	26,337	1,500	4,500	1,800	270	330	8,400
	Khoshi	2,818	3,115	5,153	1,200	20	1,889	260	23	14,478	1,000	3,000	1,200	180	220	5,600
	Total		27,818	27,506	51,532	12,000	330	22,828	2,600	215	144,829	10,000	30,000	12,000	1,800	2,200

Annex No. 7:

Crop Calendar

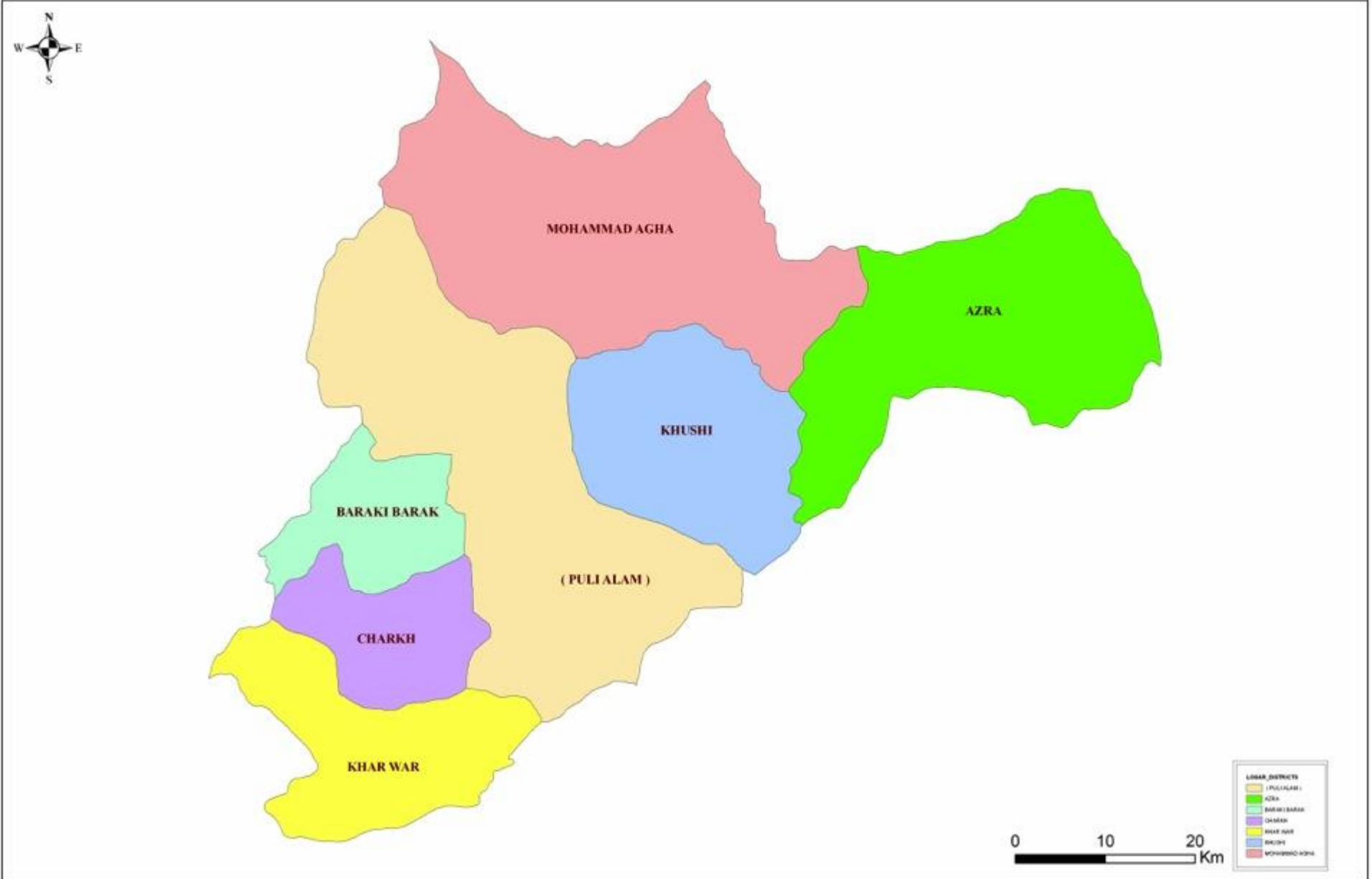
NAIS/ASAP

Activities	District	M.Agha	Province	Logar	Date	GPS HQ	Elev.H																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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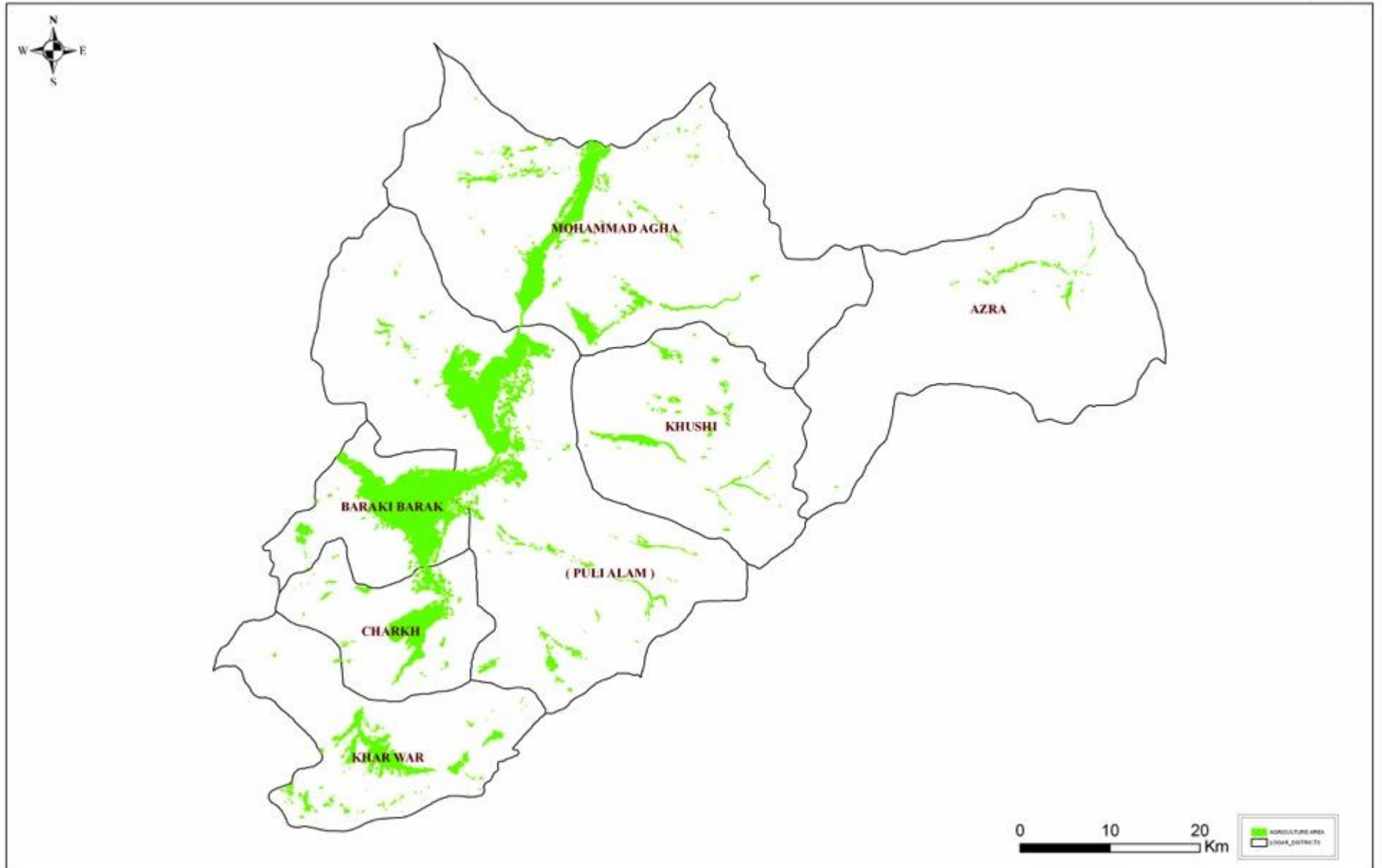
Planting

Harvesting

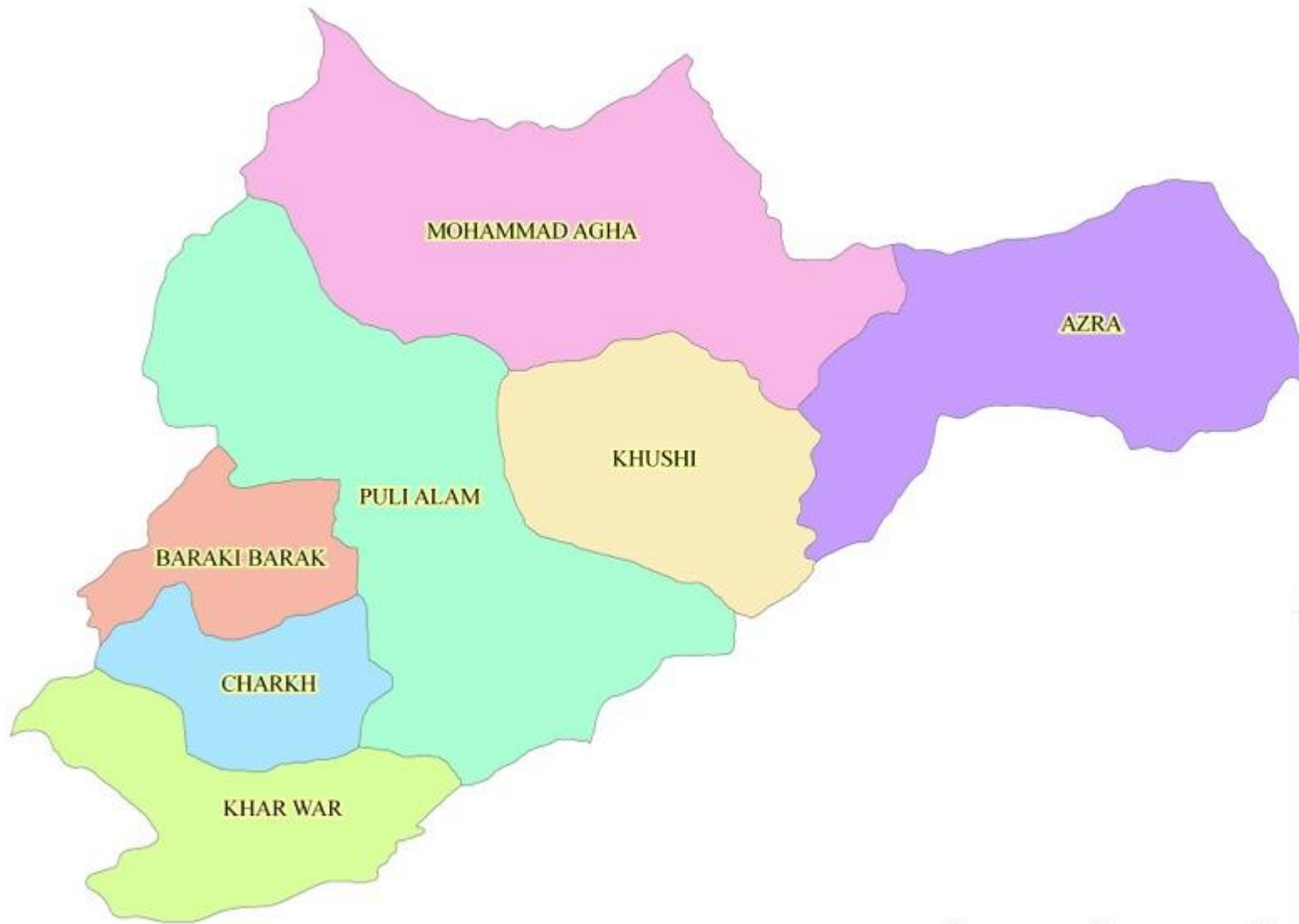
LOGAR PROVINCE DISTRICTS MAP



LOGAR PROVINCE AGRICULTURE MAP



Logar Province Crop Production (Wheat)



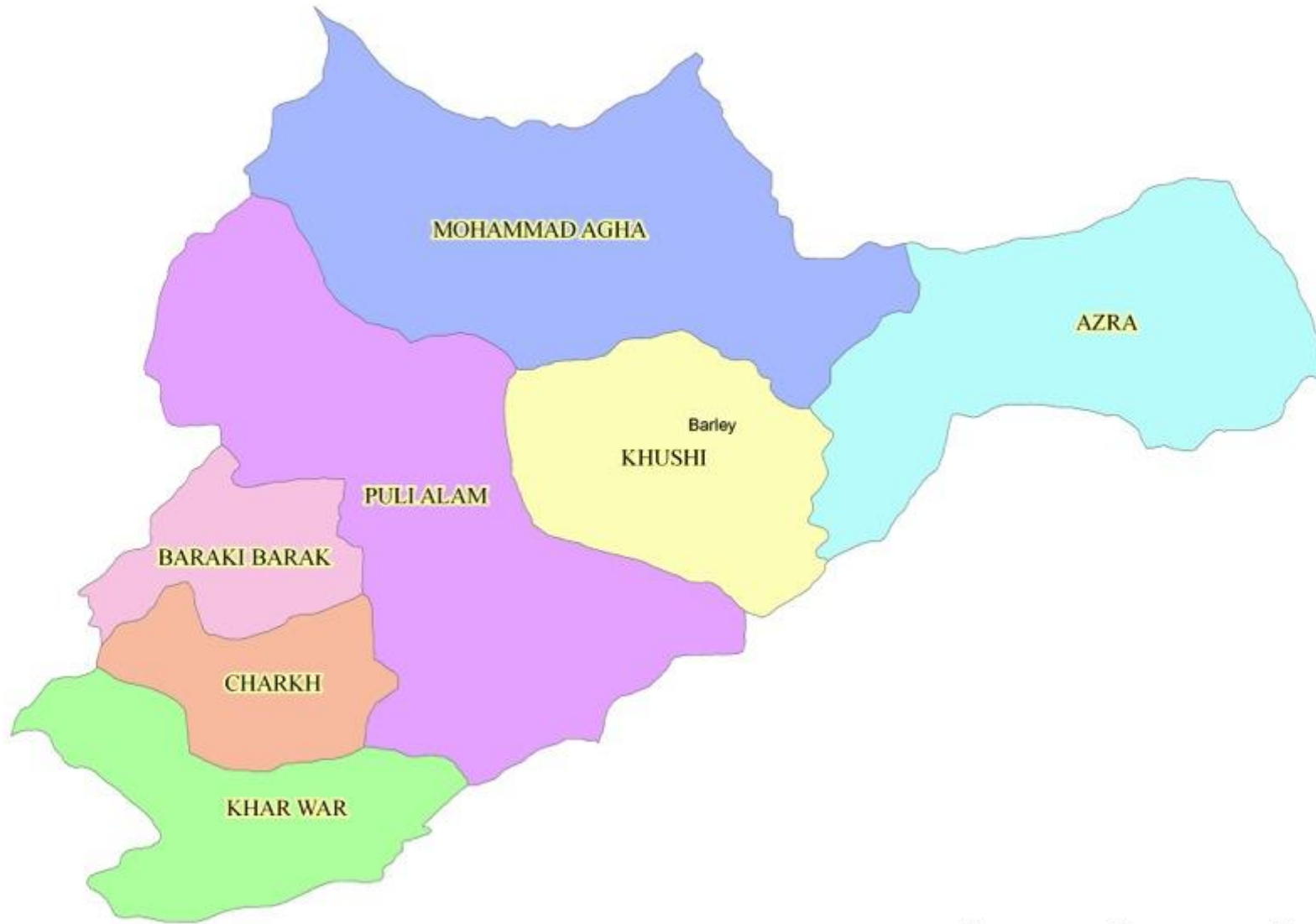
Source: NAIS 2008

Weath

Production in Tons



Logar Province Crop Production (Alfalfa)



Source: NAIS 2008
Production in Tons



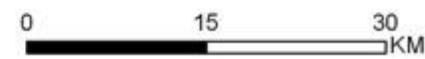
Logar Province Crop Calendar (Onion)



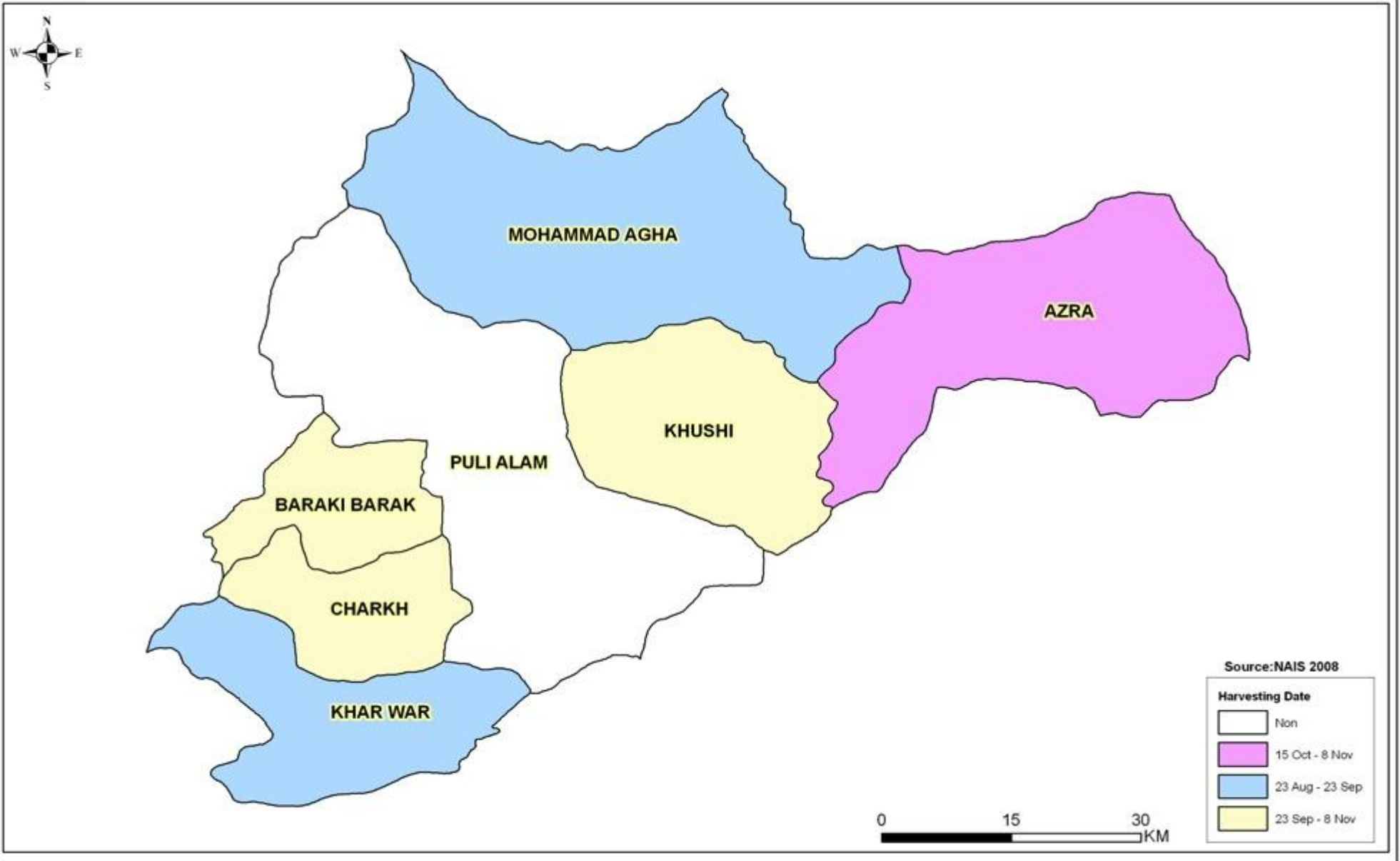
Source: NAIS 2008

Planting Date

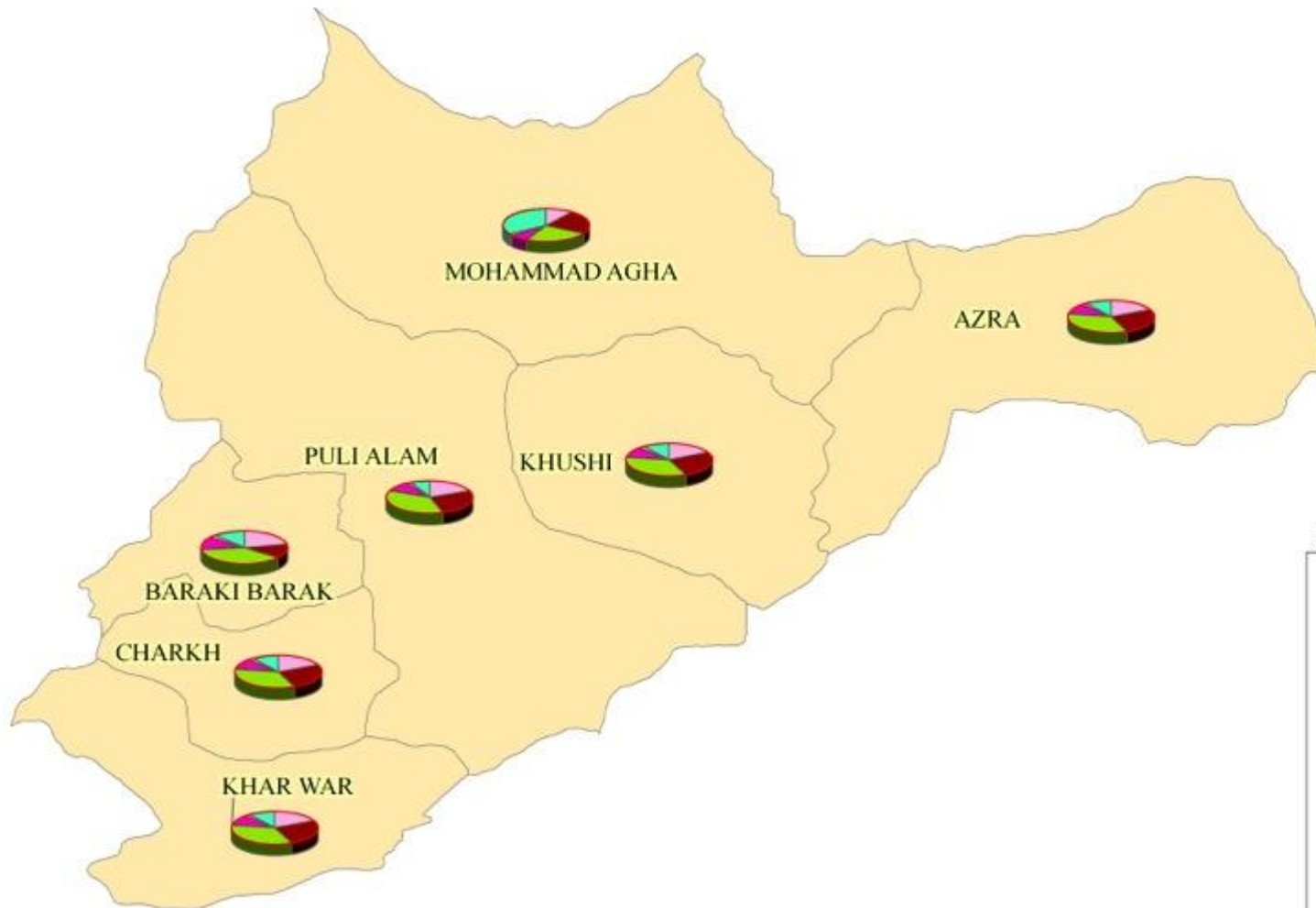
White	Non
Yellow	15 Mar - 30 Apr
Purple	15 Mar - 8 May
Pink	23 Mar - 16 Apr



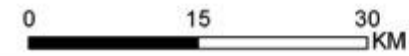
Logar Province Crop Calendar (Onion)



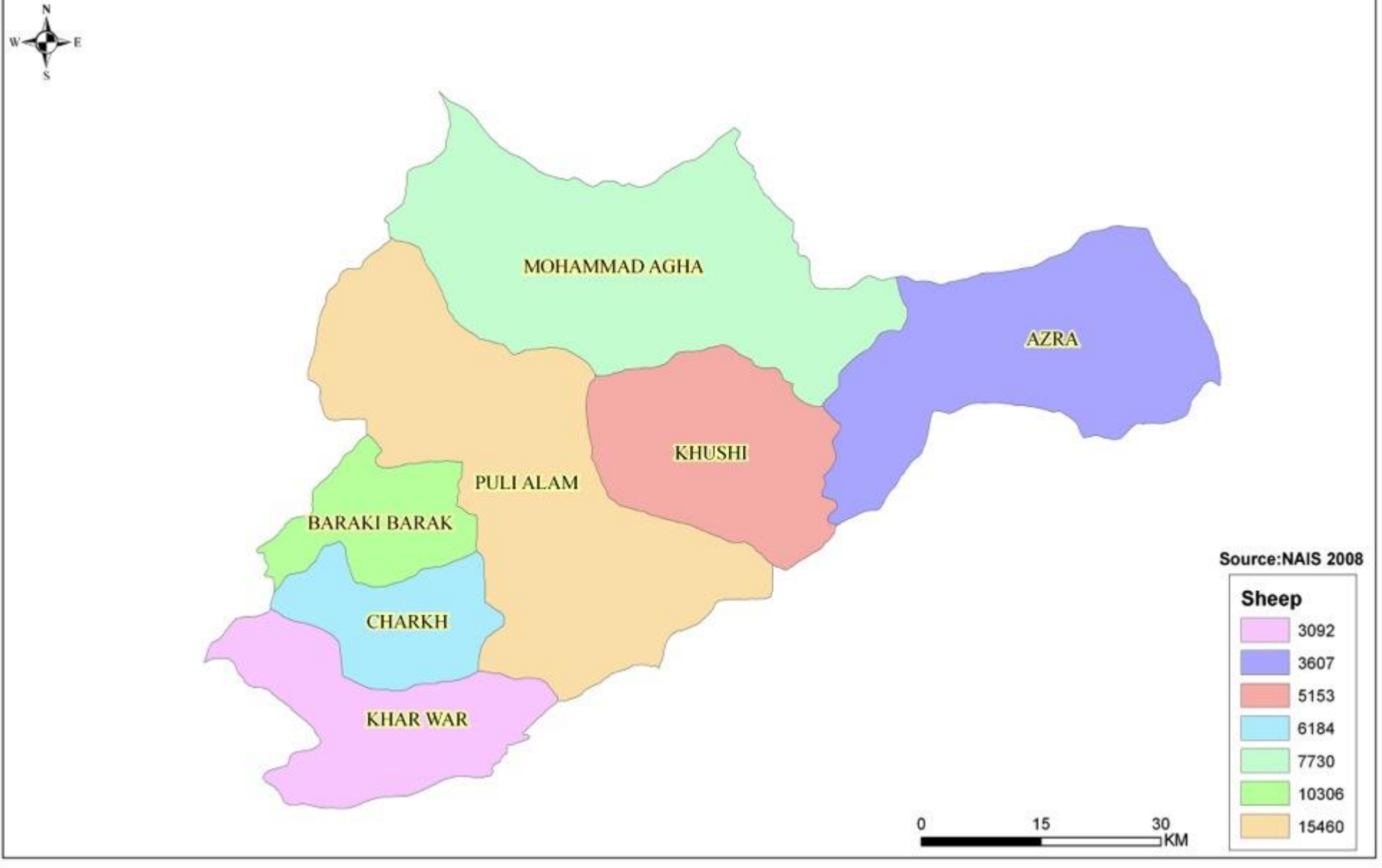
Logar Province Livestock (Graph)



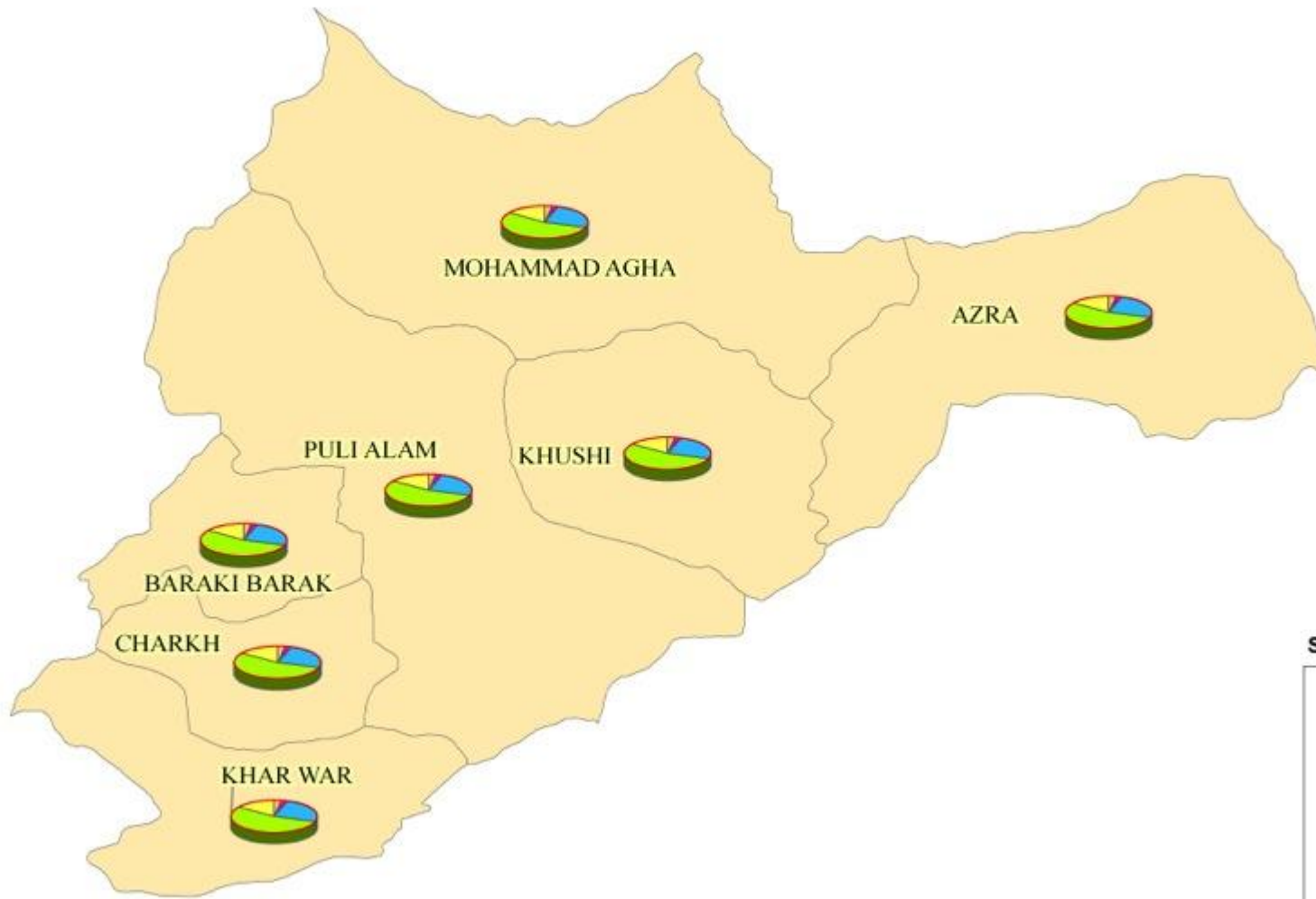
Source: NAIS 2008



Logar Province Livestock (Sheep)



Logar Province Livestock (Graph)



Source: NAIS 2008



0 15 30 KM