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## ACCELERATING SUSTAINABLE AGRICULTURE PROGRAM



### Samangan 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

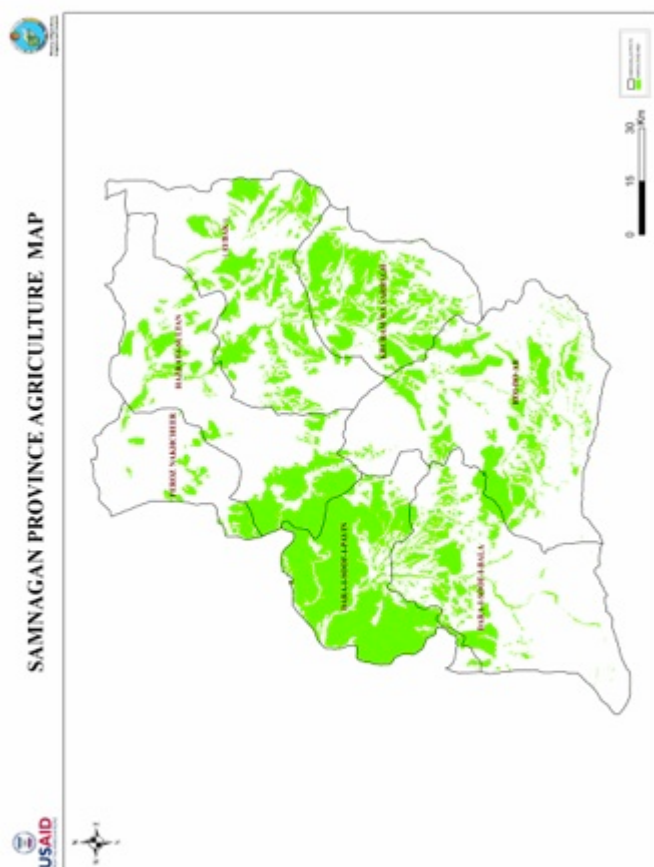
## Profile and Data

In Samangan Province



### Samangan Brief

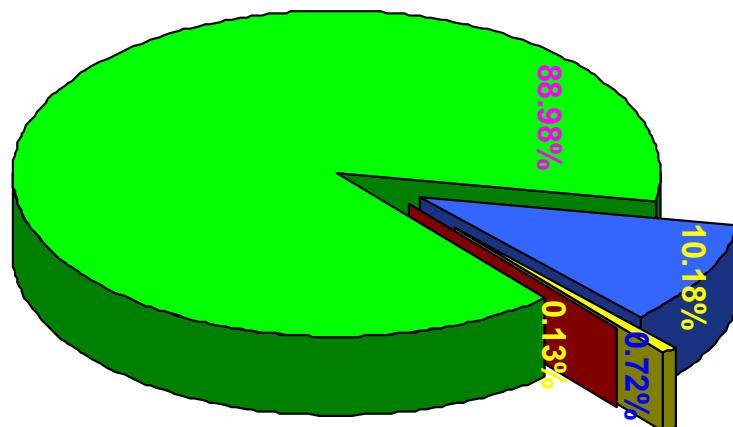
Samangan is located northern Afghanistan between 35.35-36.64 degrees latitude and 66.87-68.57 degrees longitude. Samangan borders the provinces of Balkh and Kunduz to the north, Balkh and Saripul to the west, Baghlan province to the east and Bamyan provinces to the south. Samangan has 7 districts that encompass 13,651.17 square kilometers which includes 355,758 hectares of agricultural land. There are a total of 487 villages with an estimated population of 383,311 people as of 2008. Samangan is famous for producing almonds and pistachios. The majority of the Samangan residents are engaged in animal husbandry, especially sheep and cattle.



In 2008, Samangan farmers grew 30 different crops on approximately 144,454 hectares of land (10.58 percent of total area). The province's cultivated area is mostly concentrated in the northwestern and southeastern districts because of the vicinity to the Samangan River. Almost 70 percent of the cultivated land is concentrated in 4 of the 7 districts of Samangan. The remaining 3 districts are suitable for raising livestock because of the mountainous terrain. The districts of Samangan are as follow:

- |                   |                     |
|-------------------|---------------------|
| 1. Aybak          | 5. Roi do Ab        |
| 2. Dara suf bala  | 6. Feroznakhjer     |
| 3. Dara suf Paeen | 7. Khuram & Sarbagh |
| 4. Hazrat sultan  |                     |

Samangan's total 2008 crop production was surveyed at 292,286 MT, mostly consisting of grains (88.98 percent), followed by fruits (10.18 percent), vegetable (0.72 percent) and fodder and industrial crops (0.13 percent). The total market value of the 2008 agricultural output was estimated at \$253 million.



Of Samangan's 7 districts, Dara-i-soof-i-Payin was the most productive, generating 67 percent of the total 2008 agricultural output in 2008. The remaining 4 districts (Aybak, Roi-do-Ab, Dara-i-soof-i-Bala and Feroz Nakhcheer) have slightly variation in their production and accounted for 26.45 percent of all crops. Hazrat sultan and Khuram wa Sarbagh grew the least amount of products (5.9 percent) in all of Samangan during 2008.

## 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 Samangan is the most accurate database available in the country in spite there is not estimation rewarding 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 Farah and collected by Samangan AgNet officer Mr. Abdul Ghafoor and approved by director of Samangan Provincial Agriculture department Mr. Shahnawaz in November 2008.

## Grains

Samangan's 2008 annual grain production was surveyed at approximately 260,066 MT with representing market value of \$155.7 million. Of this total, almost all (97 percent) consisted of wheat, which was valued at \$151.7 million. The remaining 3 percent comprised other grain crops valued at \$4 million.

Grain	Tons	Value USD \$
Wheat	252,902	151,741,020
Barely	5,685	2,615,252
Maize	52	29,120
Mung bean	40	24,000
Pea	1,293	1,293,000
Red bean	10	13,000
Millet	84	50,250
<b>Grand Total</b>	<b>260,066</b>	<b>155,765,642</b>

Wheat and barley are the main sources of grain in Samangan and are grown in all districts of the province. Peas were the third most cultivated crop and amounted to almost 1,300 MT of the total grain production in Samangan. Dara-i-soof-i-Payin district produced the highest amount of wheat (74.65 percent) and Roi-do-Ab produced more than half (53 percent) of all barley grown in Samangan during 2008.

	Wheat	Barely	Maize	Mung bean	Pea	Red bean	Millet
<b>Aybak</b>	19,180,000	421,680	52,000	40,000	-	10,000	80,000
<b>Hazrat-i-sultan</b>	691,200	451,800	-	-	1,050,000	-	-
<b>Khuram wa Sarbagh</b>	4,210,500	374,850	-	-	-	-	3,750
<b>Dara-i-soof-i-bala</b>	9,700,000	650,000	-	-	75,000	-	-
<b>Dara-i-soof-i-Payin</b>	188,800,000	650,000	-	-	168,000	-	-
<b>Roi-do-Ab</b>	12,000,000	3,030,000	-	-	-	-	-
<b>Feroz Nakhcheer</b>	18,320,000	107,000	-	-	-	-	-
<b>Total</b>	<b>252,901,700</b>	<b>5,685,330</b>	<b>52,000</b>	<b>40,000</b>	<b>1,293,000</b>	<b>10,000</b>	<b>83,750</b>

## Fruits

Fruits	Tons	Value USD \$
Grape	1,353	1,353,000
Apple	307	245,600
Almond	3,314	26,514,000
Apricot	385	384,500
Peach	46	32,410
Walnut	16	47,100
Pistachio	6,148	61,475,000
Melon	13,625	4,632,500
W.Melon	4,513	1,083,060
Other Fruits	39	38,500
<b>Grand Total</b>	<b>29,746</b>	<b>95,805,670</b>

In 2008, Samangan farmers grew 29,746 MT of fruits with profits estimated at \$95.8 million. Melons represented 45.85 percent of the fruit harvest but were the third most profitable fruit for Samangan farmers (\$4.6 million). Pistachios led in terms of market value (\$61 million) and accounted for 20.67 percent of all fruits grown in 2008. Meanwhile, almonds generated \$26.5 million dollars in revenue during 2008.

Unlike grain production, fruit production is more evenly dispersed in throughout the province, especially apples, almonds, apricots, melons, watermelons and walnuts. Khuram and Sarbagh districts produced the largest amounts of almonds and apricots and Hazrat-i-Sultan accounted for the most pistachios and melons. Figures presented in the table below are in kg.

	Grape	Apple	Almond	Apricot	Peach	Walnut	Pistachio	Melon	W.Melon	Other Fruits
<b>Aybak</b>	104,000	95,250	882,000	71,500	-	10,200	-	975,000	672,750	-
<b>Hazrat-i-sultan</b>	9,000	8,000	14,000	-	-	-	1,700,000	6,000,000	1,650,000	-
<b>Khuram wa Sarbagh</b>	-	63,750	2,250,000	150,000	17,500	-	-	-	-	7,000
<b>Dara-i-soof-i-bala</b>	-	40,000	48,000	28,000	12,800	5,500	720,000	2,200,000	840,000	-
<b>Dara-i-soof-i-Payin</b>	-	-	20,250	9,000	-	-	427,500	4,450,000	1,350,000	-
<b>Roi-do-Ab</b>	-	100,000	-	42,000	16,000	-	-	-	-	31,500
<b>Feroz Nakhcheer</b>	1,240,000	-	100,000	84,000	-	-	3,300,000	-	-	-
<b>Total</b>	<b>1,353,000</b>	<b>307,000</b>	<b>3,314,250</b>	<b>384,500</b>	<b>46,300</b>	<b>15,700</b>	<b>6,147,500</b>	<b>13,625,000</b>	<b>4,512,750</b>	<b>38,500</b>

## Vegetables

Vegetable production surveyed in Samangan province during 2008 was estimated at 2,103 MT, with a value of almost \$611,000. Samangan farmers produced more than 7 different types of vegetables but only potatoes amounted to over 1,000 MT. Potatoes represented 67 percent of Samangan's total vegetable harvest in 2008.

Vegetable	Tons	V
Potato	1,411	
Onion	324	
pepper	4	
Eggplant	47	
Carrot	127	
Turnip	165	
Other Vegetables	25	
<b>Grand Total</b>	<b>2,103</b>	

Farmers grew potatoes and onions in almost all districts of Samangan in 2008. Dara-i-soof-i-bala district produced over half (53 percent) of the province's potatoes and Aybak district accounted for 32 percent of all onions, 100 percent of all carrots and 54 percent of all turnips in 2008. Figures in the table below are in kg.

	Potato	Onion	pepper	Eggplant	Carrot	Turnip
<b>Aybak</b>	300,000	105,000	800	-	63,000	78,000
<b>Hazrat-i-sultan</b>	-	35,000	-	-	-	-
<b>Khuram wa Sarbagh</b>	105,000	90,000	3,000	40,000	-	37,500
<b>Dara-i-soof-i-bala</b>	750,000	45,000	650	6,600	32,500	4,200
<b>Dara-i-soof-i-Payin</b>	16,000	17,200	-	-	-	-
<b>Roi-do-Ab</b>	240,000	32,000	-	-	31,500	45,000
<b>Feroz Nakhcheer</b>	-	-	-	-	-	-
<b>Total</b>	<b>1,411,000</b>	<b>324,200</b>	<b>4,450</b>	<b>46,600</b>	<b>127,000</b>	<b>164,700</b>

## Fodder & Industrial Crops

Animal fodder and industrial crops surveyed in Samangan province in 2008 totaled 371 MT and was worth just under \$600,000. Farmers grew \$24,000 worth of alfalfa in 2008.

Fodder & Industrails	Tons	Value USD \$
Alfalfa	120	24,000
flax	173	517,800
Sesame	78	28,080
<b>Grand Total</b>	<b>371</b>	<b>569,880</b>

Farmers cultivated flax in 4 out of the 7 districts of Samangan. Moreover, a very small amount of sesame was grown and almost exclusively for household consumption in 2008. Aybak district contributes all of Samangan's alfalfa.

	Alfalfa	Flax	Sesame
<b>Aybak</b>	120,000	-	-
<b>Hazrat-i-sultan</b>	-	-	-
<b>Khuram wa Sarbagh</b>	-	-	-
<b>Dara-i-soof-i-bala</b>	-	29,000	36,000
<b>Dara-i-soof-i-Payin</b>	-	72,000	42,000
<b>Roi-do-Ab</b>	-	60,000	-
<b>Feroz Nakhcheer</b>	-	11,600	-
<b>Total</b>	<b>120,000</b>	<b>172,600</b>	<b>78,000</b>

## Livestock



Province	District	Total livestock	Total Poultry
<b>Samangan</b>	Aybak	270,277	51,203
	Dara-i-soof-i-bala	97,350	-
	Dara-i-soof-i-Payin	86,000	-
	Hazrat-i-sultan	230,250	7,100
	Khuram wa Sarbagh	48,400	-
	Roi-do-Ab	19,300	-
	Feroz Nakhcheer	67,620	25,500
<b>Total</b>		<b>819,197</b>	<b>83,803</b>

Household livestock present in Samangan totaled 819,197, not including 83,803 chickens, ducks and turkeys. Sixty-one percent of the province's livestock was found in Aybak and Hazrat sultan districts and the remaining 39 percent was kept in the other 5 districts of Samangan. Karakul sheep and goats are the dominant household livestock in Samangan province. Sheep and goats make 65 percent of all livestock and is a reflection of the hilly and mountainous terrain of the province.

Animals	Cow	Sheep & Karakul	Goat	Horse & Camel	Donkey	Total	Chicken	Turkey	Total
<b>Heads</b>	161,498	468,296	69,353	5,885	114,165	819,197	82,903	900	83,803
<b>%</b>	19.71	57.17	8.47	0.72	13.94	100%	98.93	1.07	100%

Cattle are composed of oxen and dairy cows. The high percentage of donkeys (13.9 percent) indicates that transportation in Samangan is underdeveloped.

# Annex 1

## Samangan province crop surveyed by Hec, Tons and USD

S,#	Crops	Hectares	Metric Tons	Value USD \$
1	Weath	122,820	252,902	151,741,020
2	Barely	4,400	5,685	2,615,252
3	Maiz	40	52	29,120
4	Mung bean	40	40	24,000
5	Pea	1,900	1,293	1,293,000
6	Red bean	10	10	13,000
7	Millets	105	84	50,250
8	Potato	450	1,411	423,300
9	Onion	62	324	64,840
10	pepper	8	4	5,340
11	Eggplant	12	47	18,640
12	Okra	4	8	3,850
13	Round Red Redish	2	2	1,840
14	Carrot	40	127	50,800
15	Cauliflower and Cabbage	7	15	9,240
16	Turnip	77	165	32,940
17	Grape	422	1,353	1,353,000
18	Apple	67	307	245,600
19	Almond	3,655	3,314	26,514,000
20	Plum	15	32	31,500
21	Apricot	72	385	384,500
22	Pomegranate	2	7	4,200
23	Peach	14	46	32,410
24	Walnut	25	16	47,100
25	Pistachio	6,250	6,148	61,475,000
26	Melon	2,350	13,625	4,632,500
27	W.melon	915	4,513	1,083,060
28	Alfalfa	20	120	24,000
29	Flax	420	173	517,800
30	Sesame	250	78	28,080
Total		144,454	292,286	252,749,182

## ANNEX 2

ASAP/NAIS

### Ranking of Samangan Province districts by tons surveyed annually

S.#	District	Hectares	Tons	Value USD \$	% total tons
1	Dara-i-soof-i-Payin	83076	196,022	120,405,440	67.07
2	Aybak	18572	23,281	19,835,863	7.97
3	Feroz Nakhcheer	12410	23,163	46,200,020	7.92
4	Roi-do-Ab	9418	15,628	9,038,500	5.35
5	Dara-i-soof-i-bala	9002	15,229	15,284,100	5.21
6	Hazrat-i-sultan	5544	11,609	21,242,948	3.97
7	Khuam wa Sarbagh	6432	7,353	20,995,031	2.52

## Annex 3 Harvest seasons for Samangan

### Agricultural crops surveyed

Crops	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Weath												
Barely												
Maiz												
Mung bean												
Pea												
Red bean												
Millets												
Potato												
Onion												
pepper												
Eggplant												
Okra												
Round Red Redish												
Carrot												
Cauliflower and Cabbage												
Turnip												
Grape												
Apple												
Almond												
Plum												
Apricot												
Pomegranate												
Peach												
Walnut												
Pistachio												
Melon												
W.melon												
Alfalfa												
Flax												
Sesame												

# Annex 4

## District Profile Summary for (Aybak) Samangan

2008

DISTRICT PROFILE:			Aybak	
<b>1</b>	<b>DEMOGRAPHICS</b>		<b>7</b>	<b>Water</b>
	Region:	Northern		Rain fed 60
	Province:	Samangan		Kariz
	District:	Aybak		Other irrigated 25%
	Villages:	123		Springs 5%
	Households:	16,500		Bored wells, # 20
	Estimated population:	103,383		Access/irrigated water 60%
<b>2</b>	<b>Land</b>		<b>8</b>	<b>Infrastructure</b>
	Sharecroppers, %	7%		Access/drinking water 1%
	Arable land, jeribs	282,895		Schools 45
	Arable land, hectares (/5)	56,579		Electricity costs, Afs/KWH 18 Afghani
	Grazing land, jeribs	6000		Cell phone access yes
	Geographic area, Km2	2314.628		Health clinic, # yes
	Landowner, %	43		VFUs, #
	Irrigated land area, hectares	7,554	<b>9</b>	<b>Livelihood</b>
	Rainfed land in use,hectars	49,025		Agro-horticulture sector, % 24
<b>3</b>	<b>Primary Crops</b>			Livestock sub-sector, % 36
	Spring wheat, hectars	13,400		Bussiness and Trade % 5
	Fall wheat, hectares	3,100		Government and NGO % 3
	Barley, hectares	440		Daily Labor % 32
	Milles, hectares	100	<b>10</b>	<b>Small Enterprises</b>
	Almond, hectares	980		General shops, # 220
	Mellan& water mellan,hectares	265		Food service,# 470
	Alfa alfa,hectares	20		Flour mills,# 41
	Other grains, hectares	90		Shoe repair,# 25
	Other vegetables,hectares	117		Blacksmith,# 25
	Other fruits,hectares	60		Oil extraction,# 5
<b>4</b>	<b>Livestock</b>			Butcher shops, # 61
	Livestock owners, %	10		Carpet shops,# 3
	Dairy cows, #	5500	<b>11</b>	<b>Agricultural Facilities</b>
	Beef cattle & Draught oxen, #	70,898		Artificial Insimination
	Sheep,goats+qarqul,#	155,599		Rentable Ag Machinery yes
	Donkey, #	36165		Improved wheat seed yes
	Horses, #	1,962		Fruit Nurseries, # yes
	Chickens & Turkey, #	51,203		Credit facility
	Camels, #	153		Poultry farm, #
	Kuchi, (families),#			Agrochemicals, yes
	Kuchi sheep, #			Cool storage, # yes
	Kuchi goats, #			Green houses, # yes
	Camels, #		<b>12</b>	<b>Household (HH) Indices</b>
	Kuchi other, #			Arable land/HH, jeribs 17.145
<b>5</b>	<b>Transportation</b>			Grazing land/HH, jeribs 0.363
	Distance to center, km	15.7		Irrigated land/HH, jeribs 2.289
	Time to center, minutes	30		Rainfed land/HH, jeribs 14.856
	Cost to center, Afs	70		Total livestock/HH, # 16.38
	Truck cost to center, Afs			Sheep&goats/HH, # 9.43
	District roads	Unpaved		Poultry/HH, # 3.103
	Provincial roads	Paved	<b>13</b>	<b>Checks</b>
	Accessibility	12 months		Household/village 134.146
<b>6</b>	<b>Markets</b>			Population/ HH 6.265
	Provincial	yes		School/ village 0.365
	District, General, day	Mon& Thurs		No. of Bored wells/ village 0.162
	District, livestock, day	Mon& Thurs		No. of Enterprize/village 6.91
	Traders/assemblers	yes		

# Annex 5

## Household Animals and Poultry in Samangan Province

ASAP/Chemonics

2008

S.#	Province	Districts	Livestock statistics								Total	Poultry			Total
			Oxen	Cow	Sheep	Karakol	Goats	Horse	Donkey	Camel		Hens	Checks	Turkey	
1	Samangan	Aybak	70,898	5,500	142,059	5,237	8,303	1,962	36,165	153	270,277	43,783	7,420	-	51,203
2		Dara-i-soof-i-bala	12,000	7,000	21,000	-	7,350	97,85	50,000	-	97,350	-	-	-	-
3		Dara-i-soof-i-Payin	2,000	5,000	60,000	-	15,000	1,000	3,000	-	86,000	-	-	-	-
4		Hazrat-i-sultan	30,000	5,000	150,000	10,000	25,000	225,45	10,000	250	230,250	4,200	2,500	400	7,100
5		Khuam wa Sarbagh	4,900	7,500	24,000		6,000	2,000	4,000		48,400	-	-	-	-
6		Roi-do-Ab	7,500	1,600	7,000		1,700	500	1,000		19,300	-	-	-	-
7		Feroz Nakhcheer	600	2,000	45,000	4,000	6,000	71.12	10,000	20	67,620	15,000	10,000	500	25,500

# Annex 6

Province: Samangan

Arable land survey cultivated, forest and pasture land in Hectare

2008

S.#	Province	District	Village	Cultivated land in Hact		Total land	Orchards &viens	Vegetable and Furrows crops	Cereal Crops	Forage crops	Forest land	Pasture land	Non-areble land	Mount ains	Total Land area
				Rainfed Land	Irrigated Land										
1	Samangan	Aybak	123	49,025	7,554	56,579	86,843	7,500	-	33,000	100	1,200	-	-	57,879
2		Hazrat-i-sultan	66	15,246	5,337	20,583	70,149	3,000	-	10,000	800	400	-	-	21,783
3		Khuam wa Sarbagh	42	3,000	2,000	5,000	-	-	-	-	-	5,000	-	-	10,000
4		Dara-i-soof-i-Payin	81	16,000	8,000	24,000	-	-	-	-	-	14,000	-	-	38,000
5		Dara-i-soof-i-bala	86	12,000	6,000	18,000	-	-	-	-	-	12,000	-	-	30,000
6		Roi-do-Ab	67	16,061	3,786	19,847	-	-	-	-	-	163,783	-	-	183,630
7		Feroz Nakhcheer	22	4,494	1,922	6,416	-	300	-	300	50	8,000	-	-	14,466
Total			487	115,826	34,599	150,425	156,992	10,800	-	43,300	950	204,383	-	-	355,758

## Annex 7

## Crop Calendar

2008

Activities	District	Khuram sarbagi	Province	Samangan	Date	GPS HQ	Elev.HQ						
Planting=P;Harvest=H;Treat=T	seasons	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Fruit and Nut Crops</b>													
Apple	Spring												
	Fall												
Grape													
Pomgranate													
Apricot													
Peach													
Sour Plum													
Almond													
Walnut													
Pistachi													
Mulberries													
<b>Vegetable</b>													
Tomato													
Potato	Spring												
	Fall												
Water Melon													
Melon	Spring												
	Summer												
	Fall												
carrot													
Okra													
Eggplant													
Cucumber													
Onion													
Cauliflower													
Spinach													
<b>Cash Crop</b>													
Cotton	Spring												
	Summer												
Rice													
Wheat	Spring												
	Fall												
Corn	Spring												
	Summer												
Mung Bean													
Cumine													
Sunflower													
Canoll													
Zafaran													
Pea													
<div>Planting</div> <div>Harvesting</div>													



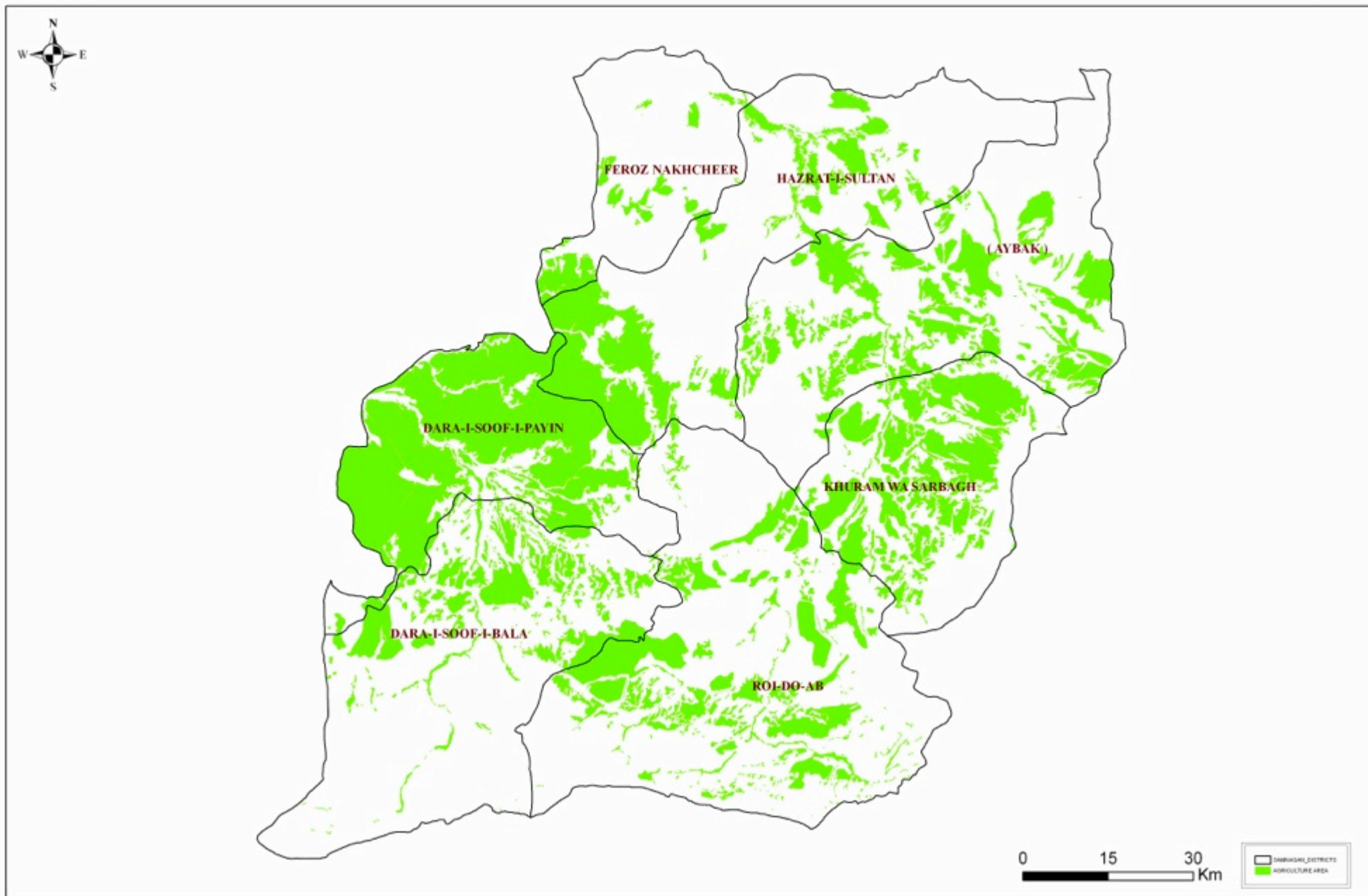
# SAMNAGAN PROVINCE DISTRICTS MAP



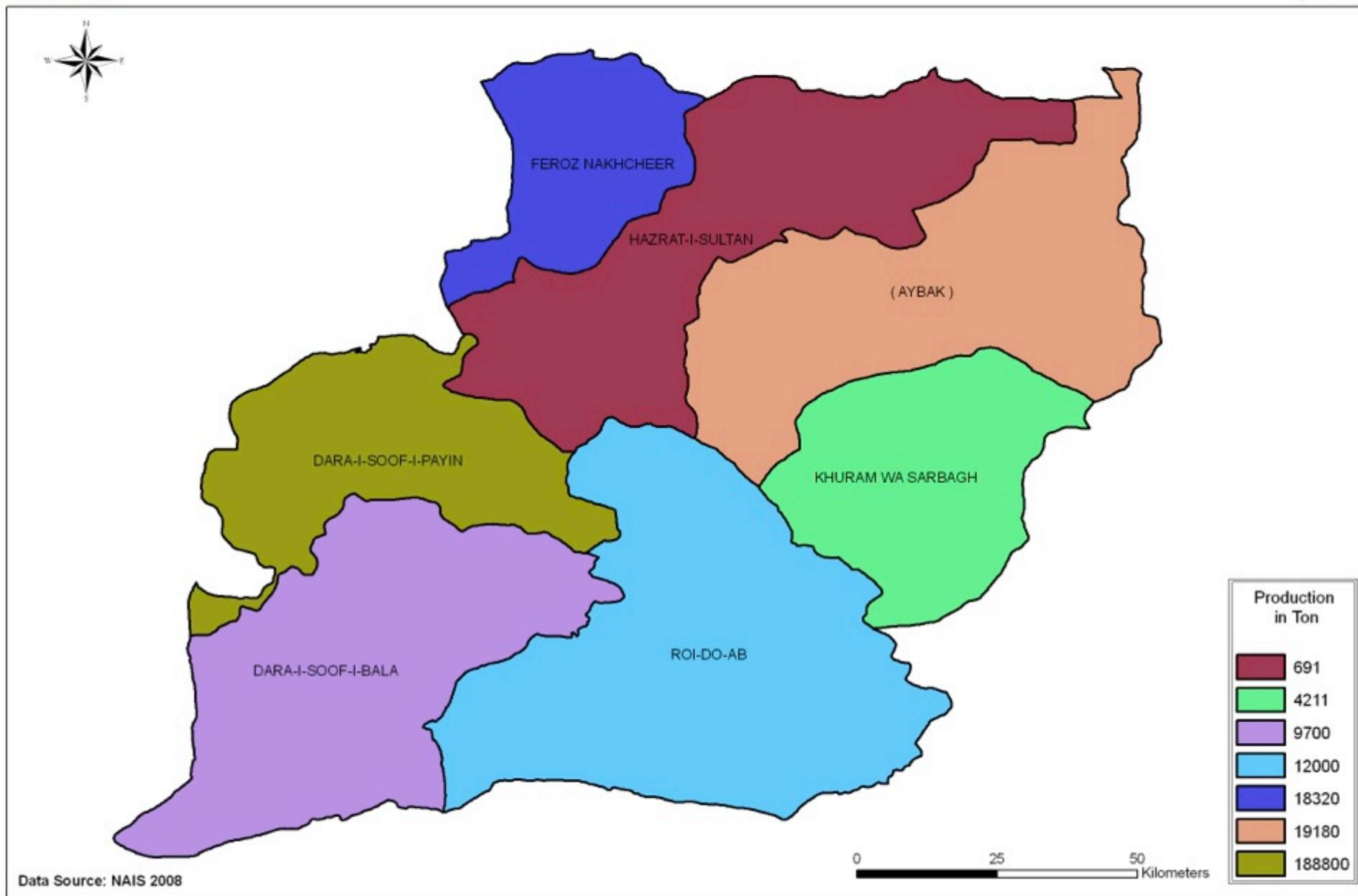
0 15 30 Km

SAMNAGAN DISTRICTS	
(AYBAK)	Light Green
DARA-I-SOOF-I-BALA	Pink
DARA-I-SOOF-I-PAYIN	Light Blue
FEROZ NAKHCHEER	Purple
HAZRAT-I-SULTAN	Yellow
KHURAM WA SARBAGH	Cyan
ROI-DO-AB	Light Orange

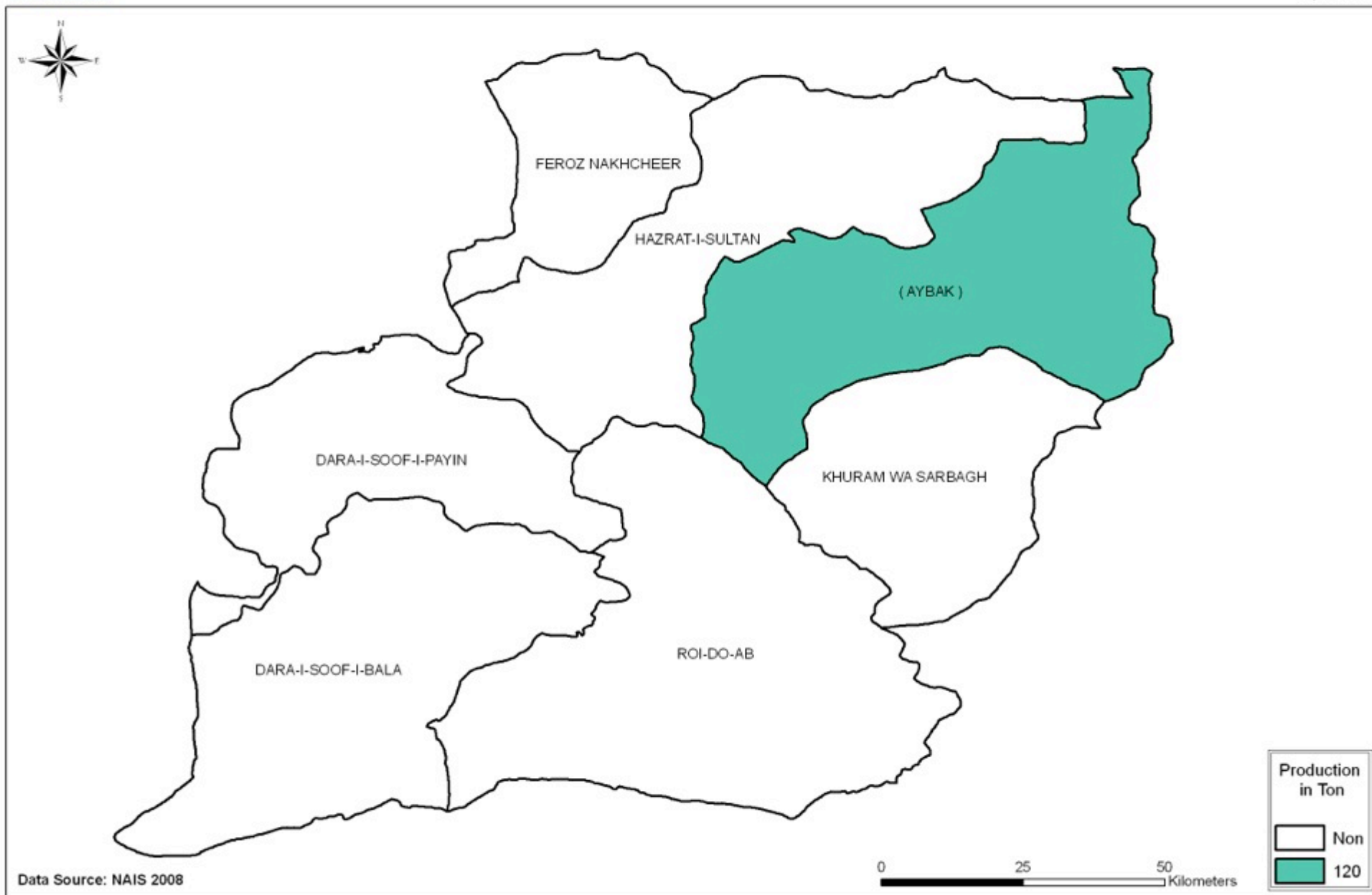
# SAMNAGAN PROVINCE AGRICULTURE MAP



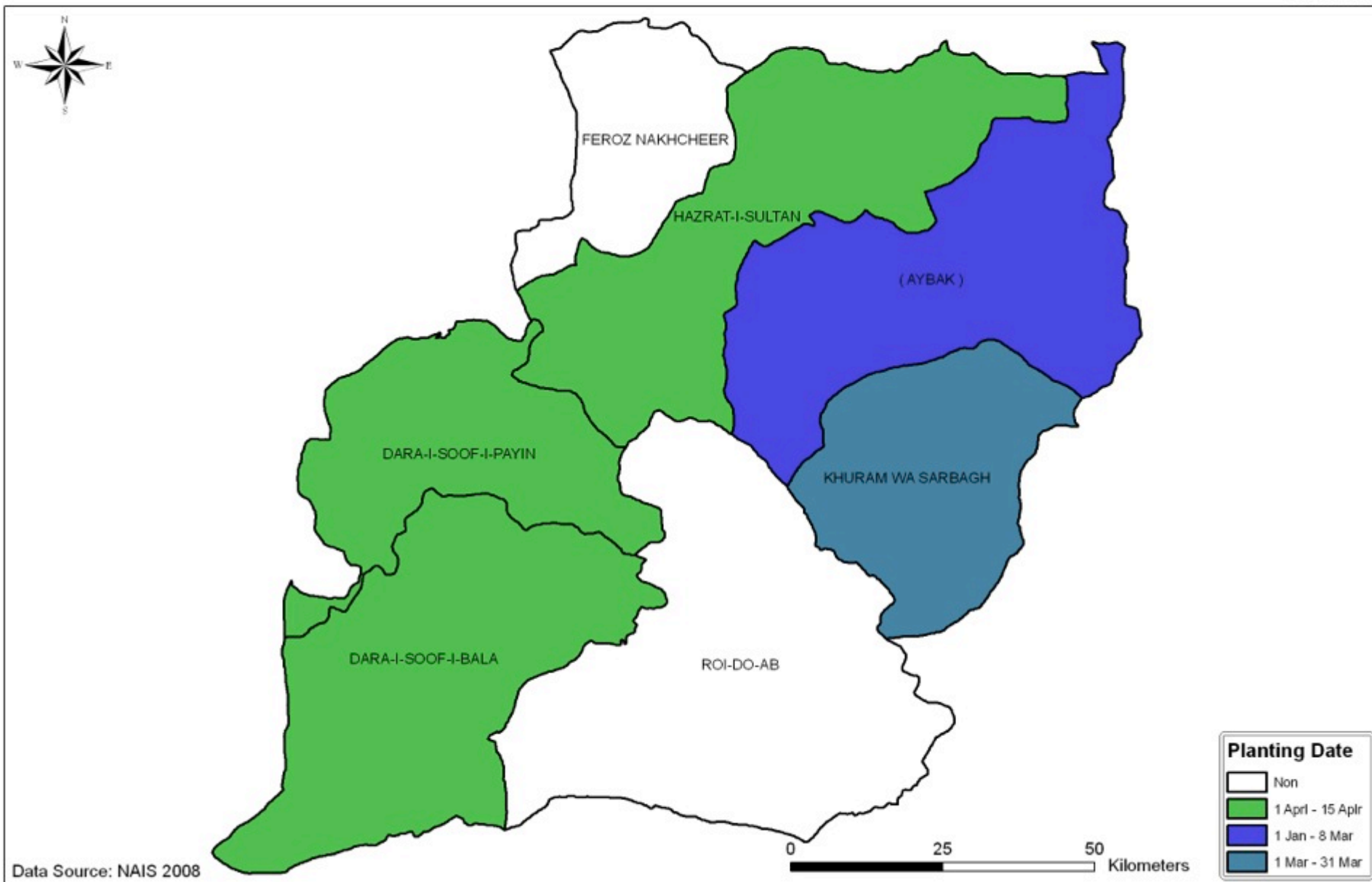
# SAMANGAN PROVINCE CROP PRODUCTION MAP (Wheat)



## SAMANGAN PROVINCE CROP PRODUCTION MAP (Alfalfa)

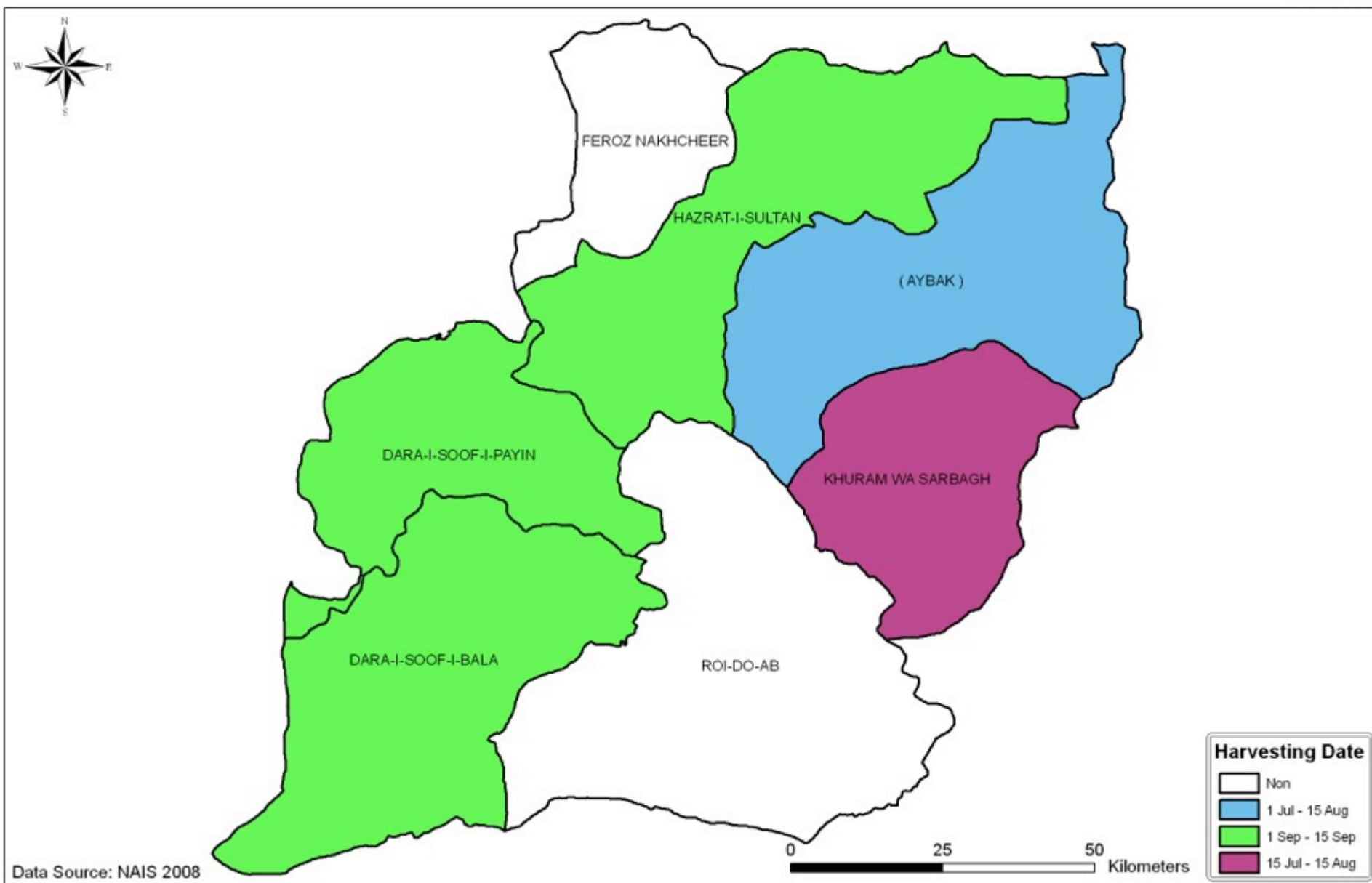


# SAMANGAN PROVINCE CROP CALENDAR (Onion)

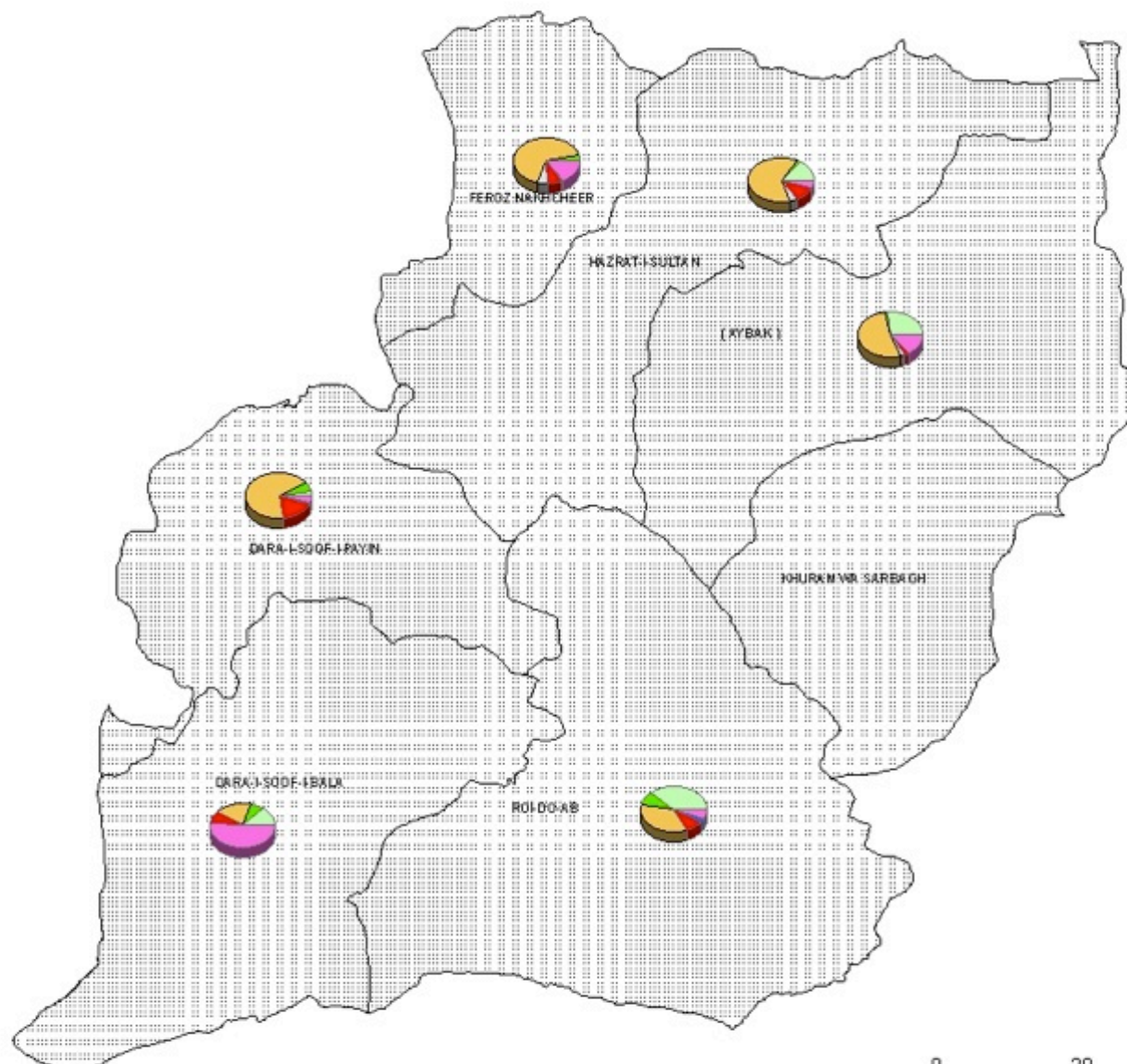




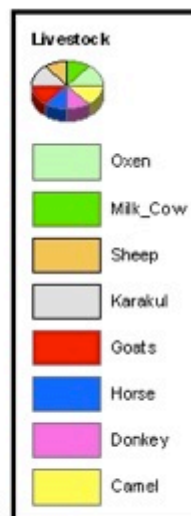
# SAMANGAN PROVINCE CROP CALENDAR (Onion)



# Samangan Province Livestock Map



Source: HAIS 2008



0 20 40 KM

# Samangan Province Livestock Map (Sheep)





# Samangan Province Livestock Map

