



***Agriculture Prospects Report
(For internal use of MAIL; Version 3.0)***



**Ministry of Agriculture, Irrigation and Livestock
General Department of Planning and Policy
Marketing, Economics and Statistics Division
(FAAHM)**

Kabul, 15 July 2008



Abbreviations

APR	Agriculture Prospects Report
CSO	Central Statistics Office
DAIL	Department of Agriculture, Irrigation and Livestock (Provincial Offices)
EC	European Commission
FAAHM	Food, Agriculture and Animal Husbandry Information Management and Policy Unit (MAIL)
FAO	Food and Agriculture Organization of the United Nations
FMD	Foot and Mouth Disease
LTA	Long-term Average
MAIL	Ministry of Agriculture, Irrigation and Livestock
NDVI	Normalized Difference Vegetation Index
PPR	<i>peste des petits ruminants</i>
RFA	Regional Field Assistant
USGS	United States Geological Survey
WFP	World Food Program

Acknowledgement

Primary sources of information for Agriculture Prospects Report are individual provincial agricultural offices. MAIL appreciates contributions made by them towards agricultural prospects monitoring and assessment by providing ground truth real time data. FAO FAAHM-II provided technical guidance and financial support for crop and livestock monitoring, farmers' survey, and crop assessment at the provincial levels. Thanks are due to MAIL officials who contributed towards field work and/or helped with the writing and production of this APR. Many thanks are due to national and international staff of MAIL and FAO, FAO area offices, projects, programs, and units for providing data, information, photos, and other types of inputs. Last, but not the least, very many thanks are also due to farmers, projects, agencies and persons for sharing information with FAAHM.

Cover photo: Harvesting of improved irrigated wheat in Beshud district in Nangarar (early-May 2008)

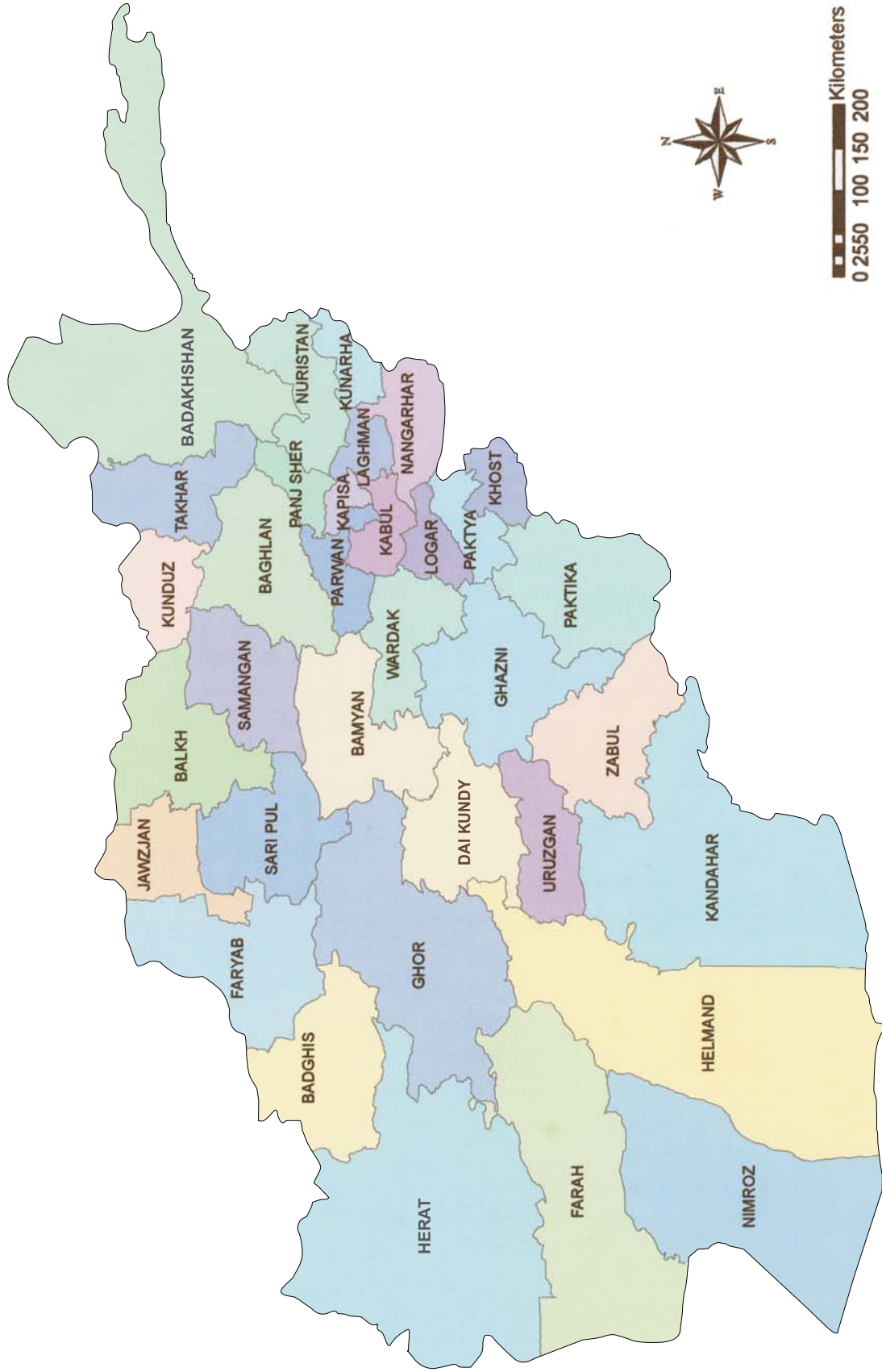


**“Support to FAAHM in Developing an Agricultural Statistics and Market Information System”
(FAO FAAHM-II - A project funded by European Commission)**

The project mentioned above provided technical guidance and modest financial support for the APR. The project is funded by the European Commission.

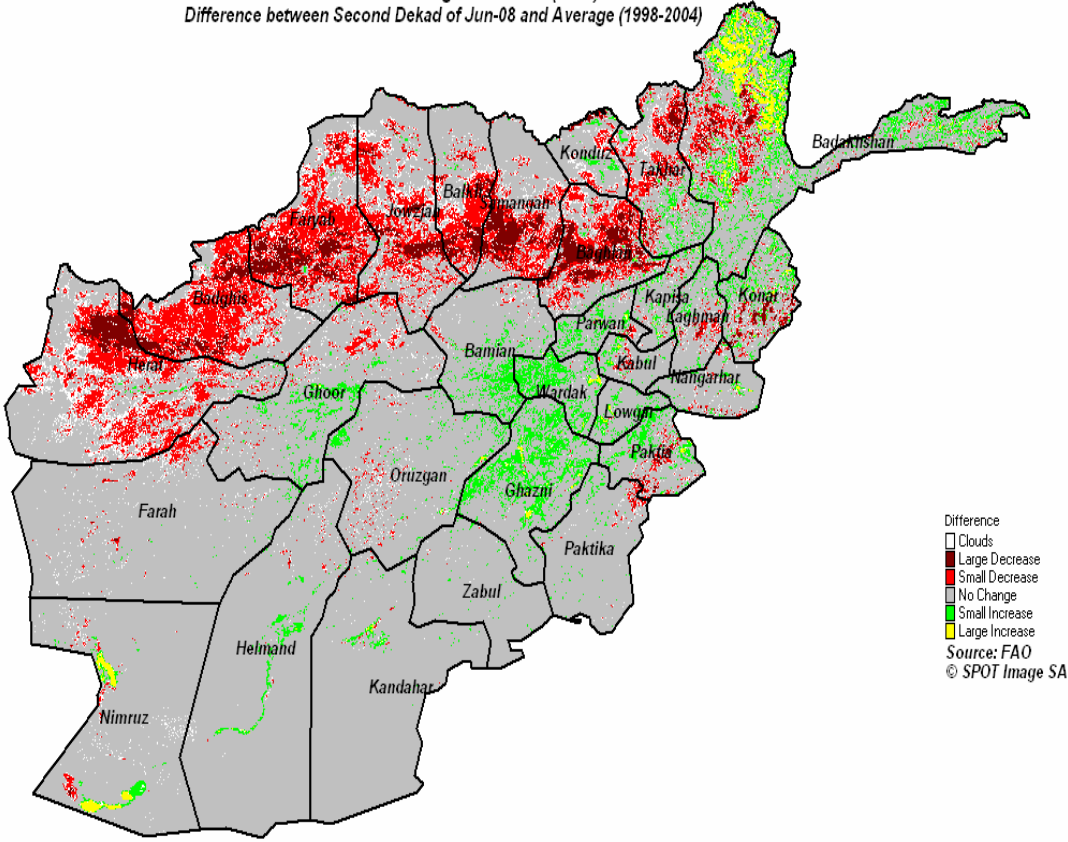
***FAAHM bulletins and reports are available at:
<http://www.agriculture.gov.af/farsi/price.htm>***

MAP OF AFGHANISTAN

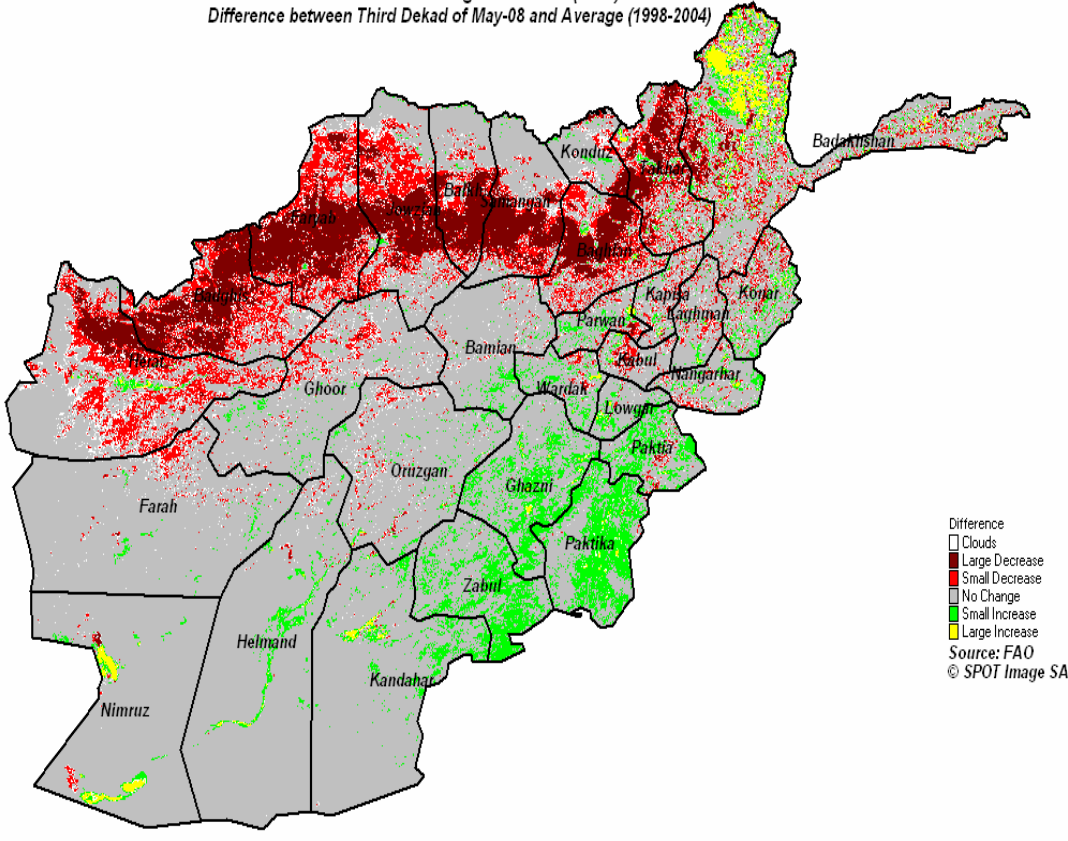


Source: Central Statistics Office

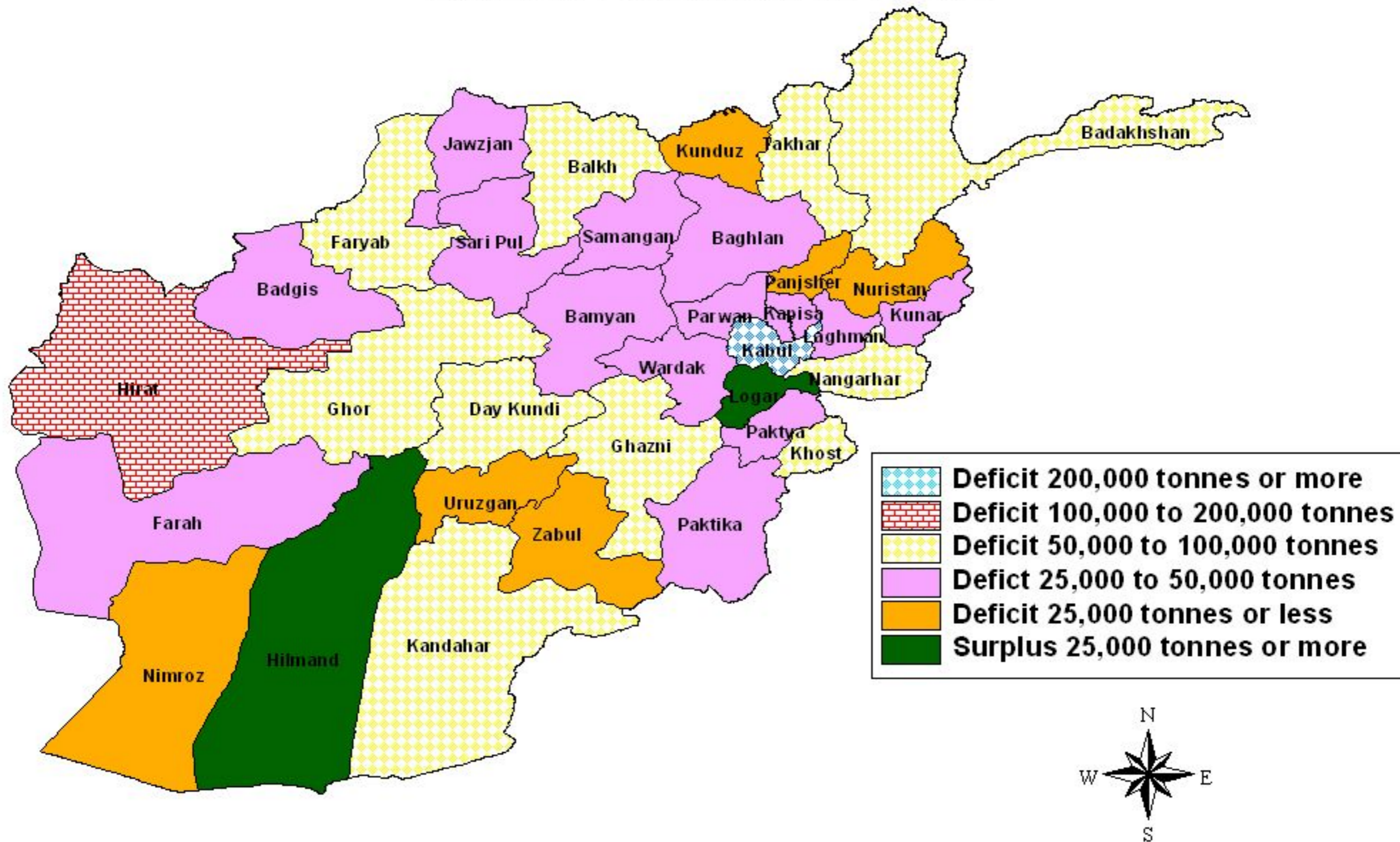
Normalized Difference Vegetation Index (NDVI)
Difference between Second Dekad of Jun-08 and Average (1998-2004)



Normalized Difference Vegetation Index (NDVI)
Difference between Third Dekad of May-08 and Average (1998-2004)



Wheat Balance in 2008



Ministry of Agriculture, Irrigation and Livestock (MAIL)
General Department of Policy and Planning
Food, Agriculture and Animal Husbandry Information Management and Policy Unit (FAAHM)

Agriculture Prospects Report (APR)

1. Introduction

Crop monitoring and assessment is a continuous process for Ministry of Agriculture, Irrigation and Livestock (MAIL). This report provides updated data based on the reports obtained from FAAHM regional offices and the findings of the latest MAIL missions that visited Saripul, Faryab, Paktia, Wardak, Takhar, Badakhshan, Samangan, Bamyan, Herat, Badghis, and Ghor provinces in June/July. It also incorporates the findings of the MAIL missions that visited 25 provinces¹ in the first, second and third week of May.

As noted in May APR, this year's weather condition has not been favorable for main crops. Firstly, weather condition in November was not conducive to land preparation and sowing of winter wheat and barley in time. Secondly, late planting of wheat, owing to the late arrival of rain, and heavy snow thereafter, were distinctive features. Due to these, area and yield of rainfed wheat, in particular, will decrease sharply. Lastly, extreme cold in January and February caused serious damage to fruits and vegetable crops in the main growing areas.

Cumulative rainfall from October 2007 to May 2008 in most parts of the country was well below normal. Central areas of the country and the western highland received slightly less snow than usual. Normal agricultural operations suffered a major setback when November was dry all over. Weather conditions in December 2007 and January 2008 improved, but reduced and erratic precipitation in February and March was experienced in all parts of the country. Rainfall in April and May is important for spring crops. Except in the case of east, well distributed rainfall lacked in April and May also. (Annex I)

The dry weather condition adversely affected both crop and livestock production. Normalized Difference Vegetation Index (NDVI)² for 3rd dekad of May and 2nd dekad of June are presented in the Annex II. In the graph yellow and green represent better than normal conditions and dark red represents problem areas. These graphs show that the main problem areas this year are parts of north and north-east, and west, where most of cereal crops are grown.

2. Region specific, updated information

Lack of rainfall, lack of irrigation water supply and lack of fodder/feed have been reported by majority of provinces. Further information by region is presented below. More details are available at FAAHM.

¹ Faryab, Jawzjan, Saripul, Balkh, Samangan, Baghlan, Kunduz, Takhar, Badakhshan, Heart, Badghis, Kabul, Parwan, Panjsher, Kapisa, Logar, Wardak, Paktia, Khost, Ghazni, Kandahar, Helmand, Nangarhar, Laghman and Kunar

² NDVI is a numerical indicator that can be used to assess the intensity of live green vegetation in a target area.

2.1. North and North-East

2.1.1. Faryab

Production of irrigated spring wheat is much less than the last year because of lack of rain. Maize and barley are not common in this province. Shortage of water, food, feed and fodder is seen. Overall condition of fruit and vegetable is not good.

2.1.2. Juzjan

Spring irrigated wheat production will considerably less than the last year. Spring rainfed wheat is not common in this province. Barley production is much less compared to the last year. Cultivation of maize is on-going now. Horticulture and animals conditions are not good.

2.1.3. Sar-e-Pul

Irrigation water availability was insufficient for crops. Cultivation of spring rain-fed wheat is not common in this province. Barley production is going to be much less this year. Occurrence of locust has been reported. Maize production will be less than half compared to the last year because of insufficient water. There are reported cases of animal death due to lack of fodder.

2.1.4. Samangan

Spring irrigated wheat production will be at least 50% less than the last year. Spring rain-fed wheat production will be 80% less than last year. Some damage due to locust has been reported. Production of barley is expected to be only slightly more than the last year. Maize is commonly not grown in the province. Horticulture and animal conditions are not good.

2.2. North-East

2.2.1. Baghlan

Spring rain-fed wheat has failed. Overall spring wheat production is going to be 33% lesser compared to the last year. Shortage of water is common. Barley production will be at least at par with the last year. Maize production is estimated to be 20% more than the last year. Fruits and vegetable production is estimated to be 15% less than the last year. Condition of animals is not good.

2.2.2. Kunduz

Agriculture condition is not good compared to the last year because lack of water. Spring irrigated wheat is not common in this province. Winter rain-fed wheat has failed in the province. Production of barley is estimated to be at least 10 % lesser than the last year. Area planted in maize is also less because the farmers preferred to plant paddy in the second season. Hence, production of maize is expected to be slightly less than last year. Irrigation water availability for rice, vegetable, cotton is inadequate. Some farmer reported that melon fly in their melon fields. Livestock situation is not good due to lack of water, feed and fodder.

2.2.3. Badakhshan

Spring wheat production is expected to be much less (over 50%) than the last year due to lack rainfall. Production of barley is much less compared to the last year. Maize production is expected to be about 5% less than the last year. Fruits and vegetable production is expected to be 10% less than the last year. Animals are adversely affected due to lack of fodder.

2.3. West and West Central

2.3.1. Herat

Production of barley and paddy is expected to be below normal. Smut and frost caused some damage to all types of wheat. Drought caused adverse effect in all districts. Spring flood in Pushtun Zarghon and Gozara districts and occurrence of locust have been reported from Kushki Kuhna, Gulran and Kushki Robat Sangi districts. Foot and Mouth Disease (FMD) is more prevalent in Injil, Gozara, Kohsan and Kushki Robat Sangi districts. Enterotoxaemia needs to be taken care. Some chicken died due to lack of vaccination. FMD vaccine available from commercial sources costs a lot. Harirud river, irrigation canals, Karezes and springs have little water. Shortage of water, food and fodder is common. If this situation prevails farmers are likely to be displaced to cities as IDPs or to neighboring countries as unskilled laborers.

2.3.2. Badghis

Considerable reduction in wheat production is foreseen due to drought, locust, lack of good quality seed, pest and diseases. Production of melon and watermelon will also be significantly lower. Water level in Murghab river is considerably lesser than the last year. This year pistachios yields are estimated to be much higher than the past years. There is a lack of water, food and fodder. Pastures are well below normal because of drought and locust.

2.3.3. Farah

Farah Rod is virtually dry. Since April farmers have been irrigating their crops by water pumps. Vegetables have been planted in more areas. Main problems in vegetable production have been: (i) low price of the produce in the market, (ii) a lack of marketing opportunity outside and (iii) high price of fuel. Given these, farmers cannot afford to irrigate vegetables they grow properly.

2.4. West Central

2.4.1. Bamyan

Lack of rain, a lack of fodder/feed, and sporadic occurrence of locust and Colorado Potato Beetle (CPB) are main problems.

2.4.2. Ghor

This year is an exception year for Ghor. Harirud river had never been like this before. It partly dried in Chaghcharan. Rainfed is not common in Ghor. Fertilizer supply was not satisfactory, both quantitatively and

qualitatively. There will be considerable reduction in spring wheat production also. Due to outbreak of locust, about 100 ha has been adversely affected in Dulina, Shahrak, Chahar Sada, Toluk, Pasaband and Tiwar districts. Some 200 ha irrigated spring wheat is adversely affected in aforesaid districts. FMD caused some death of cows. Sheep pox caused some death of sheep and goats.

2.5. Central

No unusual reports have been received since the last reporting.

2.6. East

In this Region with different climate different crops can be grown and several types of fruits are available. Major crops and fruits in this Region are as following:

- Cereal and Pulses: Wheat, maize, paddy, barley, millets, mungbean, beans and chickpea.
- Vegetables: Onion, potato, tomato, okra, cauliflower, cabbage, broccoli, turnip, courgettes, carrot, peas, bean, pepper, spinach, pumpkin, leek, lettuce, mint, radish, eggplant, yam, squash, garlic, cucumber, melon and watermelon
- Fruits: Orange, lemon, sweet orange, pomello, grape fruit, olive, grapes, apricot, pomegranate, banana, mango, date, berry, loquat, persimmon, walnut, pine nuts, peach, fig, apple, guava, pear and plum.
- Industrial Crops: Cotton, sugarcane, olive, sunflower, soybean, sesame, mustard and sugar beet.

This province was blessed with good rainfall this year. Rainfall in April was good and well distributed. Rainfall situation in May was not good, but most of crop harvest took place in May. Spring wheat is not very common the east.

In this region crop cuts surveys were conducted in three provinces (Kunar, Langhman and Nangharhar). The results of the crop cuts are summarized below.

Table 1: Yield (tones/ha) of winter irrigated wheat in the eastern provinces, 2008

Province	May 2008 Estimate of MAIL	Farmers' estimate in May/June	Results of the crop cuts (May/June)
Kunar	2.62	3.05	3.14
Laghman	2.70	2.93	3.12
Nangharhar	2.91	2.83	3.01

2.6.1. Kunar

Agriculture situation is generally good. Kunar River has enough water. Production of irrigated wheat in 2008 will be more than the last year owing to more area coverage and favorable irrigation water supply. Rainfed wheat and barley have failed. About 1,300 ha of various vegetables, 630 ha of industrial crops and 1,600 ha alfalfa and clover were cultivated.

2.6.2. Laghman

Spring wheat is not common. Barely production is estimated at 250 tonnes. Following amounts of inputs have been distributed by the government through Provincial Restucture Team (PRT): 127,350 kg wheat seed as (Lalmi 2); 2,800 kg of wheat seed (Lalmi 1); 100 bags of DAP and 200 bags of Urea.

2.6.3. Nangarhar

There is an increase in area devoted to licit crops. Irrigated wheat is in very good condition, except in some districts such as Rodat, Achin and Chaparhar, where lack of irrigation water is a problem. Rainfed wheat has failed. Barely production is estimated 850 tonnes. Nine animals died in Rodat, Hesarak and Chaparhar districts due to Anthrax and Enthroxemia. Farmers have started planting Paddy. Water is enough for this.

2.6.4. Nuristan

Production of irrigated winter wheat area is going to be slightly more than the last year, barely production will be much less. Rainfed wheat is not going to yield much. Cultivation of spring rainfed wheat is not common. Shortage of rainfall was the main problems for rainfed wheat during the month of February. In October about 700 animals died due to various diseases and extreme cold.

2.7. South Region

2.7.1. Paktika

The performance of winter irrigated wheat is good as irrigation was just enough. Rainfed crops failed. Horticulture crops are affected by different diseases. Rust in winter irrigated wheat is reported from Urgun and Sarubi districts. Irrigation water available for horticulture and vegetable is very limited at the moment.

2.7.2. Khost

Drought adversely affected crops in provincial center, Esmial Khail, Tani, Gurbaz, AliShair and Ya Khobi districts. Water for irrigated winter wheat and barely was enough, but due to untimely seasonal rainfalls, lack of improved seed, high prices of fertilizer, production is going to be only slightly above normal. At the moment paddy and maize are being cultivated. A lack of irrigation and rainfall for these crops has been felt.

2.7.3. Ghazni

Winter irrigated wheat is in normal condition. Irrigation water was adequately available for crops. After very less spring rains from March and less irrigation water horticulture production will be almost 20% less than last year. Drought in Jaghato, Rashidan, Nawa, Waghaz and Jaghuri has been reported. No abnormal occurrence of crop diseases has been reported from any districts in the province.

2.8. South West Region

2.8.1. Kandahar

Harvest of winter wheat and barely in the province will have been completed very soon. Very few areas are to be harvest by mid-July. Performance of irrigated wheat is good compared to last year. Irrigation water was available. Due to lack of enough precipitation rainfed wheat was badly affected specifically in Arghistan, Maruf, Daman, Khakrez, Shorawak and Reg districts. This year crops in the province are abnormally affected by smut. Rust, locust and sunn pest have been reported from Takhtapul (Shaga) district.

2.8.2. Helmand

Irrigation water availability for winter crops was very good and timely. Condition of wheat and barely is very good. Due to price rise, wheat growers received good price for their produce this year. Price of cereals is still high in Lashkar Gah as the amount of wheat and wheat flour available for sale in the local market is limited. Now lack of water in Helmand River and traditional karizes has been reported. Irrigation system in war affected districts (Naw Zad, Dishu, Khanashin, Sangin, Washer, Baghran) have been damaged. Lack of adequate rains from mid March and badly affected irrigation system are problems in above mentioned districts. Occurrence of Smut disease and Sunn pest is more than normal.

2.8.3. Zabul

Due to lack of enough precipitation and irrigation water farmers irrigated wheat and barely only three times maximum whilst the requirement is 5-6 times. Rainfed crops have failed. Farmers in this province would need massive inputs support to grow next winter crops. Horticulture crops are also affected by various diseases.

2.8.4. Nimruz

Drought in the districts of Chakhansur, Kang, Chaharburjak, Zarang and Khashrod – in that order of importance - is reported. This year farmers in many parts of the province irrigated wheat and barely field only once or twice. The requirement is 4-6 times. Helmand and Khashrod rivers dried from the third week of March. Residents in Zarang pay high price for drinking water. This has caused people in this district to displace themselves.

2.8.5. Uruzgan

Lack of well distributed rainfall and ongoing droughts caused adverse effect on wheat. Irritation for wheat and barely in germination was enough but the supply dropped down in spring. Karizes and tube wells also frequently dried. Maize and pulses are experiencing water stress. Occurrence of sunn pest and locust is above normal.

3. Cereal production and deficit in 2008

It is very clear that production of wheat/barley in 2008 will be one of the lowest in the latest years. Rainfed wheat has failed in all parts of the country due to water stress. Main adverse effect of rainfed failure will be a considerable reduction in wheat production in the north and north-east, which are breadbasket of the country. Rainfed wheat has failed in the west also. Irrigated wheat has mixed situation. Wheat is in good condition in the east except in districts of Rodat, Achin and Chaparhar in Nangharhar. This is because of a lack of irrigation water. All provinces in the East, Helmand and Ghor have reported better situation than what was reported in May.

In May aggregate cereal production was estimated at 3.86 million tonnes and the cereal deficit was estimated at 1.94 million tonnes. The calculated amount was based on the assumption that there would be normal amount of spring rain. This was not the case. (Annex I) The updated estimate of deficit in cereal production (2.26 million tonnes) takes into account of the following: (i) reduction in production of rainfed wheat, (ii) reduction in production of other cereal crops due to unfavorable weather condition in April/May and (iii) cereal requirement for the 2008 returnees³.

3.1. Area, Yield and Production of cereals

Aggregate 2008 cereal production is estimated at 3.63 million tonnes, of which wheat is 2.64 million tonnes (73%). Province level data on wheat area and production are shown in Annex 3.

**Table 2: Forecasted Area and Production of different Cereals in 2008
(Provisional estimates)**

Crop	Area (‘000 ha.)	Yield (tonnes/ha.)	Production (‘000 tonnes)
Irrigated wheat (Winter & Spring)	990	2.450	2,426
Rainfed wheat (Winter & Spring)	1,149	0.190	217
All wheat	2,139	1.240	2,643
Milled rice (paddy yield)	190	2.910	370
Maize	137	2.044	280
Barley	236	1.411	333
Overall	2,702		3,626

Area cultivated with cereals in 2008 is estimated at 2.7 million hectares. Compared to 2007, estimated overall fall in wheat production is 39%, with 85% fall in rainfed wheat and 16% fall in irrigated wheat.

**Table 3: Percent changes in Area, Yield and Production of wheat in 2008
[Area in ‘000 ha. yield in tonnes/ha and production in ‘000 tonnes]
(Provisional estimates)**

Type of crop	2007			2008			Percent change in		
	Area	Yield	Prod	Area	Yield	Prod	Area	Yield	Prod
Irrigated wheat	1,071	2.69	2,878	990	2.45	2,426	-8	-9	-16
Rainfed wheat	1,395	1.05	1,465	1,149	0.19	217	-18	-82	-85
All wheat	2,466	1.76	4,343	2,139	1.24	2,643	-13	-30	-39

³ Tentatively estimated at 400,000 people

Aggregate production of cereals in 2008 is estimated at 3.63 million tonnes, which is about 34% lower than in 2007. Year to year variations in cereal production are shown in Table 4.

Table 4: Cereal Production from 1998 to 2008⁴ {'000 tonnes)

Crop	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Irrigated wheat	2,020	1,988	1,329	1,514	2,110	3,017	1,867	2,728	2,604	2,878	2,426
Rainfed wheat	814	512	140	83	576	1,345	426	1,538	759	1,465	217
Total wheat	2,834	2,500	1,469	1,597	2,686	4,362	2,293	4,266	3,363	4,343	2,643
Milled Rice	301	188	105	122	260	291	310	325	361	425	370
Maize	330	240	115	160	298	310	234	315	359	360	280
Barley	240	216	74	87	345	410	220	337	364	370	333
Total cereals	3,705	3,144	1,763	1,966	3,589	5,373	3,057	5,243	4,447	5,498	3,626

Barley production in 2008 is estimated at 333,000 tonnes. Assuming normal planting/growing conditions for paddy and maize in the forthcoming season, milled rice and maize production are forecasted at 370,000 tonnes and 280,000 tonnes, respectively.

Total cereal requirement in 2008 is estimated at 5.89 million tonnes, of which 4.72 million tonnes (about 80%) is wheat. Updated estimate of cereal deficit in 2008 is 2.26 million tonnes. Hence, the total import requirement of cereals – including commercial import and food aid - is estimated at 2.26 million tonnes, which includes 2.08 million tonnes of wheat and 183,000 tonnes of rice/maize. (see Table 5 and Annex 3, 4 and 5 for details)

**Table 5: Production and requirement of various cereals in 2008/09 marketing year {'000 tonnes)
(Provisional estimates)**

Crop	Requirement					Domestic Production	Cereal Surplus/ Deficit
	Food	Seed	Feed	Loss	Total		
Irrigated wheat		187	--	364		2,426	
Rainfed wheat		116	--	33		217	
All wheat	4,022	303	0	397	4,722	2,643	-2,079
Milled rice	427	19	0	26	472	370	-102
Maize	50	9	247	55	361	280	-81
Barley	25	28	230	50	333	333	--
Total	4,524	359	477	528	5,888	3,626	-2,262

Given the past trend, about three-fourth of wheat deficit (1.5 million tonnes) needs to be met through commercial import. Other main option for making up the deficit is food aid.

⁴ Sources: (a) 1998 to 2004: FAO/WFP Crop and Food Supply Assessment Mission to Afghanistan and (b) 2005 to 2007: Agriculture Prospects Report, MAIL. Figures for 2008 are provisional estimates.

4. Next Agriculture Prospects Report (APR)

Next MAIL missions to provinces for crop assessment are planned in the second week of August. As regards this FAAHM conducted crop cuts survey in Kunduz, Takhar, Baghlan, Balkh, Badghis, Farah, Hirat, Kandahar, Helmand, Nagherhar, Kunar and Laghman to gather more reliable crop yield data. Crop cuts data from Badghis, Farah, Hirat, Kandahar, Helmand, Nagherhar, Kunar and Laghman have been used in this report. Next APR will be issued in the second week of September after the reports of the MAIL missions and the results of the crop cuts surveys from the north and north-east provinces have been received and analyzed.

Annex I: Rainfall situation in the 2008 crop growing cycle
{Actual Rainfall amount compared to the Long Term Average (LTA) from October 2007 to May 2008}

Region	Province	Station	Oct	Oct 07	% LTA	Nov	Nov 07	% LTA	Dec	Dec 07	% LTA	Jan	Jan 08	% LTA	Feb	Feb 08	% LTA	Mar	Mar 08	% LTA	Apr	Apr 08	% LTA	May	May 08	% LTA	Cumulative (Oct 07 to May-08)		
			LTA	Actual	Oct 07	LTA	Actual	Nov 07	LTA	Actual	Dec 07	LTA	Actual	Jan 08	LTA	Actual	Feb 08	LTA	Actual	Mar 08	LTA	Actual	Apr 08	LTA	Actual	May 08	LTA	Actual	% LTA
North	Faryab	Maimana	0.0	0.0	100	28.0	0.0	0	35.0	41.6	119	47.9	22.0	46	55.8	43.5	78	83.9	4.5	5	68.0	38.3	56	34.0	0.8	2	352.6	150.7	43
North	Juzjan	Sheberghan	0.0	0.0	100	15.0	1.0	7	29.0	45.6	157	40.8	41.5	102	43.7	37.1	85	53.1	2.2	4	33.0	3.0	9	7.0	0.2	3	221.6	130.6	59
North	Sari Pul	Sari Pul	0.0	0.0	100	0.0	1.0	>100	0.0	61.0	>100	89.0	34.0	38	18.3	41.5	227	10.9	4.5	41	6.1	6.0	98	15.0	0.0	0	139.3	148.0	106
North	Balkh	Mazar	0.0	0.0	100	11.0	0.0	0	21.0	61.8	294	28.9	61.8	214	37.9	35.0	92	46.7	0.0	0	26.0	12.0	46	11.0	0.0	0	182.5	170.6	93
North East	Baghlan	Baghlan	9.0	0.0	0	24.0	0.0	0	23.0	36.0	157	41.1	12.6	31	41.8	19.6	47	84.1	23.2	28	62.0	60.2	97	30.0	3.8	13	315.0	155.4	49
North East	Kunduz	Kunduz	0.0	0.0	100	26.0	0.0	0	36.0	242.0	672	44.2	47.0	106	0.0	47.0	>100	75.3	102.0	135	67.0	99.0	148	41.0	49.0	120	289.5	586.0	202
North East	Takhar	Taluqan	0.0	0.0	100	0.0	3.0	>100	0.0	56.0	>100	77.8	0.0	0	78.1	11.5	15	131.1	33.0	25	119.3	61.0	51	65.1	11.0	17	471.4	175.5	37
North East	Badakshan	Faiz Abad	25.6	26.5	104	29.0	0.0	0	32.0	12.0	38	45.4	6.0	13	63.0	15.0	24	98.2	58.0	59	105.0	87.5	83	94.0	10.0	11	492.2	215.0	44
West	Herat	Herat	0.0	0.0	100	9.0	0.0	0	9.0	28.5	317	49.6	176.0	355	39.0	3.0	8	49.9	0.0	0	33.6	8.0	24	6.5	0.0	0	196.6	215.5	110
West	Farah	Farah	0.0	0.0	100	3.0	0.0	0	3.0	0.0	0	22.2	6.5	29	24.8	19.0	77	25.3	0.0	0	8.0	2.5	31	2.0	0.0	0	88.3	28.0	32
Central	Kabul	Darul Aman	0.0	0.0	100	1.4	0.0	0	0.0	21.7	>100	40.5	40.8	101	71.5	27.2	38	64.3	5.2	8	56.2	61.2	109	17.1	11.9	70	251.0	168.0	67
Central	Kabul	Kabul	0.0	2.8	>100	11.0	0.0	0	25.0	21.0	84	33.1	42.0	127	58.6	25.0	43	63.9	13.0	20	64.0	77.1	120	20.0	17.1	86	275.6	198.0	72
Central	Kabul	Kariz Mir	0.0	0.0	100	27.0	1.0	4	30.0	24.0	80	46.9	96.0	205	68.8	25.0	36	91.7	8.0	9	121.0	102.0	84	31.0	14.0	45	416.4	270.0	65
Central	Kabul	Paghman	0.0	0.0	100	43.0	4.0	9	52.0	41.0	79	62.1	82.0	132	68.5	39.0	57	80.9	8.0	10	89.0	180.0	202	30.0	28.0	93	425.5	382.0	90
Central	Kabul	Sarobi	0.0	0.0	100	15.0	0.0	0	29.0	14.0	48	44.4	70.0	158	54.9	30.0	55	46.5	17.0	37	55.1	66.3	120	14.4	4.5	31	259.3	201.8	78
Central	Parwan	Jabul Seraj	0.0	0.0	100	22.0	0.0	0	36.0	25.0	69	65.3	93.0	142	88.2	33.5	38	98.3	23.0	23	142.0	122.2	86	35.0	20.0	57	486.8	316.7	65
Central	Logar	Logar	0.0	0.0	100	9.0	0.0	0	20.0	6.0	30	34.8	47.0	135	0.0	5.9	>100	44.3	60.0	135	50.0	63.6	127	26.0	18.0	69	184.1	200.5	109
South	Paktya	Gardiz	0.0	0.0	100	11.0	0.0	0	11.0	35.0	318	40.4	42.0	104	70.8	3.0	4	64.0	11.0	17	55.0	79.0	144	25.0	8.0	32	277.2	178.0	64
South	Ghazni	Ghazni	0.0	0.0	100	11.0	4.0	36	11.0	5.0	45	46.1	37.3	81	36.4	20.0	55	55.0	0.0	0	60.0	20.0	33	24.0	0.0	0	243.5	86.3	35
East	Nangharhar	Ghaziabad	0.0	0.0	100	0.0	5.0	>100	4.6	0.0	0	12.9	35.0	271	25.1	12.0	48	37.7	14.0	37	56.3	67.0	119	12.1	15.0	124	148.7	148.0	100
East	Nangharhar	Jalalabad	0.0	0.0	100	8.0	0.0	0	16.0	2.0	13	17.0	27.0	159	0.0	38.0	>100	63.2	9.5	15	33.0	61.5	186	18.0	8.0	44	155.2	146.0	94
South West	Kandahar	Kandahar	0.0	0.0	100	6.0	0.0	0	6.0	2.5	42	49.1	61.5	125	35.1	5.0	14	26.3	4.0	15	16.0	28.0	175.0	2.0	0.0	0.0	140.5	101.0	72

Sources:
MAIL/USGS Project stationed at FAAHM
Consolidated table prepared at FAAHM

Annex 2: Wheat seed produced by the FAO seed project in the last five years

SN	Variety	Breeder Seed (kg)						Foundation Seed (tonnes)						Certified Seed (tonnes)					
		2003	2004	2005	2006	2007	Total	2003	2004	2005	2006	2007	Total	2003	2004	2005	2006	2007	Total
1	MH-96	0.100	2.440	0.341	0.404	--	3.285	2.00	44.00	8.46	--	10.88	65.34	35	800	328	--	--	1,163
2	Herat-99	0.775	3.409	1.500	1.775	3.525	10.984	18.00	64.00	35.50	14.65	14.76	146.91	322	1,175	978	450	358	3,283
3	Balkh-66	0.200	--	--	0.315	--	0.515	4.50	--	--	2.40	9.07	15.97	81	3	--	60	9	153
4	Mazar 99	1.850	--	0.748	1.200	1.514	5.312	44.00	--	17.00	31.05	26.03	118.08	790	5	533	942	815	3,085
5	Gul 96	1.825	0.118	0.783	0.590	0.430	3.746	42.50	4.00	19.00	17.56	14.14	97.20	782	83	575	1,150	193	2,783
6	Ghori-96	0.800	--	0.850	0.540	0.554	2.744	18.50	--	18.99	39.06	6.59	83.14	330	3	580	733	1,017	2,663
7	Lalmi-1	2.000	--	0.950	0.340	1.700	4.990	4.50	--	20.00	6.40	2.68	33.58	81	5	605	620	128	1,439
8	Lalmi-2	0.900	0.378	0.753	0.797	1.035	3.863	47.00	11.00	18.50	48.64	21.20	146.34	847	238	569	1,279	767	3,700
9	Lalmi-3	1.500	0.370	0.450	1.114	3.500	6.934	20.00	11.00	8.40	20.25	33.67	93.32	358	235	326	504	242	1,665
10	Diyama-96	0.200	2.193	0.318	0.646	1.958	5.315	35.00	--	8.80	20.88	12.70	77.38	629	8	336	521	236	1,730
11	Sn'b	--	--	0.308	0.348	0.730	1.386	4.50	--	7.00	8.05	5.38	24.93	81	--	293	503	13	890
12	Cham-6	--	0.050	0.371	0.221	0.880	1.522	4.00	--	8.00	27.05	6.61	45.66	119	--	317	--	210	646
13	Rona-96	--	--	0.200	0.857	2.721	3.778	--	--	4.80	5.40	14.73	24.93	--	--	240	--	85	325
14	Pamir-94	0.800	--	0.900	0.747	0.733	3.180	18.50	--	18.20	7.05	19.31	63.06	318	3	617	194	145	1,277
15	Roshan-96	1.950	1.832	0.600	0.389	0.260	5.031	44.00	39.00	14.50	13.30	7.75	118.55	736	880	473	178	309	2,576
16	Amu-99	1.350	1.413	0.428	0.848	0.587	4.626	30.50	29.00	9.50	26.95	12.30	108.25	514	666	357	689	1,474	3,700
17	Parva-2	0.400	--	0.200	0.950	2.782	4.332	9.50	--	34.00	32.87	15.82	92.19	159	3	245	851	289	1,547
18	Solh-2	0.600	0.315	0.983	0.569	0.202	2.669	14.00	9.00	24.00	15.97	14.41	77.38	236	200	701	--	285	1,422
19	PBW-154	0.800	0.180	0.988	1.692	11.470	15.130	18.00	5.00	23.00	38.53	35.50	120.03	303	100	677	--	534	1,614
20	HUW-234	--	--	0.368	0.348	--	0.716	--	--	8.00	1.00	11.70	20.70	--	--	317	--	16	333
21	HD-2285	--	--	0.130	0.320	4.500	4.950	--	--	3.50	1.00	6.78	11.28	--	--	119	27	42	188
22	Bakhtawar-	0.550	3.002	1.263	1.799	0.790	7.404	12.00	65.00	22.85	16.61	33.00	149.46	200	1,428	668	426	339	3,061
23	Mayson	--	--	--	0.242	--	0.242	--	--	--	--	--	--	--	--	--	--	--	--
24	Kouz/AA/	--	--	--	0.350	--	0.350	--	--	--	--	--	--	--	--	--	--	--	--
25	FDLu/NG8	--	--	--	0.225	--	0.225	--	--	--	--	--	--	--	--	--	--	--	--
26	Pastor	--	--	0.728	0.600	0.160	1.488	--	--	--	--	6.00	6.00	--	--	--	--	--	--
27	Ghazna-97	0.250	--	--	--	0.170	0.420	--	--	--	5.33	--	5.33	--	--	--	145	10	155
28	/4/Clif	--	--	--	0.150	--	0.150	--	--	--	--	--	--	--	--	--	--	--	--
29	UREs/PRC	--	--	0.130	0.224	--	0.354	--	--	--	--	--	--	--	--	--	--	--	--
30	IRENA/We	--	--	0.230	--	--	0.230	--	--	--	--	3.01	3.01	--	--	--	--	--	--
31	WEBBLL-	--	--	0.130	0.200	--	0.330	--	--	--	--	--	--	--	--	--	--	--	--
32	Takhar-96	0.150	--	--	--	--	0.150	--	--	--	--	--	--	4	--	--	111	--	115
Total		17.000	15.700	14.650	18.800	40.201	106.351	391.00	281.00	332.00	400.00	344.00	1748.00	6,925	5,835	9,854	9,383	7,516	39,513

Source: FAO Seed Project (GCP/AFG/018/045/EC)

Annex 3: Area and Production of Wheat in 2008 by province (Provisional Estimates; mid-July 2008)

REGION/ Province	Irrigated Wheat			Rainfed Wheat			Total Wheat		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production
	('000 ha)	(t/ha)	('000 tons)	('000 ha)	(t/ha)	('000 tons)	('000 ha)	(t/ha)	('000 tons)
NORTH	195	1.89	369	585	0.18	108	780	0.61	477
Faryab	39	2.02	79	171	0.16	27	210	0.50	106
Juzjan	38	1.68	64	72	0.15	11	110	0.68	75
Sar-i-Pul	23	2.10	48	106	0.20	21	129	0.53	69
Balkh	82	1.85	152	125	0.21	26	207	0.86	178
Samangan	13	1.98	26	111	0.21	23	124	0.40	49
NORTH-EAST	213	2.06	438	339	0.11	36	552	0.86	474
Bughlan	52	2.18	113	74	0.11	8	126	0.96	121
Kunduz	88	1.90	167	20	0.11	2	108	1.56	169
Takhar	46	2.24	103	129	0.11	14	175	0.67	117
Badakhshan	27	2.05	55	116	0.10	12	143	0.47	67
WEST	109	2.14	233	158	0.38	60	267	1.10	293
Herat	73	2.12	155	84	0.44	37	157	1.22	192
Farah	15	2.37	36	0	0.00		15	2.40	36
Badghis	21	2.00	42	74	0.31	23	95	0.68	65
WEST-CENTRAL	29	2.41	70	35	0.23	8	64	1.22	78
Ghor	17	2.25	38	29	0.22	6	46	0.96	44
Bamyan	12	2.64	32	6	0.26	2	18	1.89	34
CENTRAL	109	3.02	329	11	0.27	3	120	2.77	332
Kabul	21	2.94	62	1	0.26	0	22	2.82	62
Parwan	23	2.70	62	2	0.33	1	25	2.52	63
Panjsher	5	2.29	11	1	0.33	0	6	1.83	11
Kapisa	9	3.18	29	0	0.00		9	3.22	29
Logar	27	3.69	100	6	0.30	2	33	3.09	102
Wardak	24	2.70	65	1	0.26	0	25	2.60	65
SOUTH	84	2.94	247	3	0.00	0	87	2.84	247
Paktya	16	3.36	54	1	0.26	0	17	3.18	54
Paktika	14	2.80	39	1	0.26	0	15	2.60	39
Khost	13	2.10	27	0	0.00		13	2.08	27
Ghazni	41	3.10	127	1	0.22	0	42	3.02	127
EAST	83	3.05	253	8	0.13	1	91	2.79	254
Nangarhar	61	3.01	184	6	0.22	1	67	2.76	185
Laghman	13	3.12	41	1	0.22	0	14	2.93	41
Kunarha	8	3.14	25	0	0.00		8	3.13	25
Nooristan	1	2.85	3	1	0.22	0	2	1.50	3
SOUTH-WEST	168	2.90	487	10	0.10	1	178	2.74	488
Kandahar	42	2.58	108	1	0.22	0	43	2.51	108
Helmand	71	3.45	245	0	0.00		71	3.45	245
Zabul	10	3.00	30	1	0.22	0	11	2.73	30
Nimroz	14	2.23	31	1	0.22	0	15	2.07	31
Uruzgan	26	2.25	59	1	0.26	0	27	2.19	59
Daikunde	5	2.75	14	6	0.22	1	11	1.36	15
TOTAL	990	2.45	2,426	1,149	0.19	217	2,139	1.24	2,643

Source: FAAHM/MAIL

Annex 4: Wheat Balance in 2008 by Province (Preliminary estimates)

REGION/ Province	Settled population in 2008 (^{'000})	Irrigated wheat area to be planted (^{'000} ha.)	Rainfed wheat area to be planted (^{'000} ha.)	Production (^{'000} tons)	Required for human consumption (^{'000} tons)	Seed (^{'000} tons)	Post harvest losses (^{'000} tons)	Surplus or Deficit (^{'000} tons)
NORTH	3,285.9	220	710	477	525.7	97.4	71.7	-217.8
Faryab	868.8	42	190	106	139.0	23.1	15.9	-72.0
Juzjan	468.0	50	110	75	74.9	17.9	11.3	-29.1
Sar-i-Pul	488.2	25	120	69	78.1	14.3	10.4	-33.8
Balkh	1,122.6	87	160	178	179.6	28.5	26.7	-56.8
Samangan	338.3	16	130	49	54.1	13.6	7.4	-26.1
NORTH-EAST	3,342.9	220	352	474	534.9	67.8	71.3	-200.0
Bughlan	789.5	54	80	121	126.3	16.1	18.2	-39.6
Kunduz	866.7	91	22	169	138.7	17.8	25.4	-12.9
Takhar	855.5	50	140	117	136.9	20.4	17.6	-57.9
Badakhshan	831.2	25	110	67	133.0	13.5	10.1	-89.6
WEST	2,493.8	144	240	293	399.0	45.1	44.0	-195.1
Herat	1,611.2	97	140	192	257.8	28.6	28.8	-123.2
Farah	448.8	24	0	36	71.8	4.2	5.4	-45.4
Badghis	433.8	23	100	65	69.4	12.3	9.8	-26.5
WEST-CENTRAL	995.5	35	48	78	159.3	10.1	11.7	-103.1
Ghor	604.4	22	40	44	96.7	7.2	6.6	-66.5
Bamyan	391.1	13	8	34	62.6	2.9	5.1	-36.6
CENTRAL	5,300.3	111	15	332	848.1	20.7	50.0	-586.8
Kabul	3,335.2	21	1	62	533.6	3.8	9.3	-484.7
Parwan	579.3	23	3	63	92.7	4.3	9.5	-43.5
Panjsher	134.4	6	2	11	21.5	1.2	1.7	-13.4
Kapisa	386.3	9	0	29	61.8	1.6	4.4	-38.8
Logar	342.9	26	8	102	54.9	5.2	15.3	26.6
Wardak	522.2	26	1	65	83.6	4.6	9.8	-33.0
SOUTH	2,439.5	98	5	247	390.3	17.6	37.2	-198.1
Paktya	482.4	17	1	54	77.2	3.1	8.1	-34.4
Paktika	380.7	15	2	39	60.9	2.8	5.9	-30.6
Khost	502.7	12	0	27	80.4	2.1	4.1	-59.6
Ghazni	1,073.7	54	2	127	171.8	9.6	19.1	-73.5
EAST	2,223.2	72	10	254	355.7	13.5	38.3	-153.5
Nangarhar	1,309.4	50	8	185	209.5	9.4	27.8	-61.7
Laghman	390.1	13	1	41	62.4	2.4	6.2	-30.0
Kunarha	394.1	8	0	25	63.1	1.4	3.8	-43.3
Nooristan	129.6	1	1	3	20.7	0.3	0.5	-18.5
SOUTH-WEST	2,957.8	171	15	488	473.2	31.1	73.4	-89.7
Kandahar	1,037.1	38	1	108	165.9	6.7	16.2	-80.8
Helmand	807.5	75	0	245	129.2	13.1	36.8	65.9
Zabul	265.9	12	1	30	42.5	2.2	4.5	-19.2
Nimroz	137.4	14	1	31	22.0	2.5	4.7	1.8
Uruzgan	306.6	27	2	59	49.1	4.9	8.9	-3.9
Daikunde	403.3	5	10	15	64.5	1.7	2.3	-53.5
Total for settled	23,038.9	1,071	1,395	2643	3,686.2	303.2	396.5	-1,742.9
Total for Kuchi	1,700.0	0	0	0	272.0	--	--	-272.0
Total for returnees	400.0	0	0	0	64.0	--	--	-64.0
Overall	25,138.9	1,071	1,395	2643	4,022.2	303.2	396.5	-2,078.9

Sources:

CSO: Projected population data for 2008

FAAHM and FAO: All other data

Annex 5: Production and Requirements of various cereals in 2008
(Preliminary Estimates)

Crop	Population (‘000 no.)	Required for human consumption (kg/person)	Forecasted area for 2009 (‘000 ha)	Seed-rate rate (kg/ha)	Used as Food (‘000 t)	Used as Seed (‘000 t)	Used as feed (‘000 t)	Loss (‘000 t)	Total required (‘000 t)	Total production (‘000 t)	Surplus/ Deficit (‘000 t)
	(1)	(2)	(3)	(4)	(5)=(1)x(2)	(6)=(3)x(4)	(7)	(8)	(9)=(5)+(6)+(7)+(8)	(10)	(11)=(10)-(9)
Irrigated wheat	25,139		1,071	175		187	--	364		2,426	
Rainfed wheat			1,395	83		116	--	33		217	
All wheat		160	2,466	126	4,022	303	0	397	4,722	2,643	-2,079
Milled rice		17	180	105	427	19	0	26	472	370	-102
Maize		2	150	60	50	9	247	55	361	280	-81
Barley		1	250	110	25	28	230	50	333	333	0
All cereals	180	3,046		4,524	359	477	528	5,888	3,626	-2,262	

Losses: 15% of production for wheat, maize and barley; 7% for milled rice

