



Agriculture Prospects Report



**Ministry of Agriculture, Irrigation and Livestock
General Department of Policy and Planning
Food, Agriculture and Animal Husbandry Information
Management and Policy Unit (FAAHM)
Kabul, 15 May 2007**

Abbreviations

APR	Agriculture Prospects Report
CCPP	contagious caprine pleuropneumonia
CSO	Central Statistics Office
DAP	Di-Ammonium Phosphate
EC	European Commission
ERU	Emergency and Rehabilitation Unit (FAO)
FAAHM	Food, Agriculture and Animal Husbandry Information Management and Policy Unit
FAO	Food and Agriculture Organization of the United Nations
FMD	Foot and Mouth Disease
IMF	International Monetary Fund
IPM	Integrated Pest Management
LTA	Long-term Average
MAIL	Ministry of Agriculture, Irrigation and Livestock
OIE	<i>Office International des Epizooties</i> (World Organization for Animal Health)
PPQD	Plant Protection and Quarantine Department
PPR	<i>peste des petits ruminants</i>
QDS	Quality Declared Seed
RFA	Regional Field Assistant
UNDP	United Nations Development Program
USGS	United States Geological Survey
WFP	World Food Program

Contact us

Haqiqatpal Ghulam Rabbani, Director, FAAHM, MAIL

GhulamRabbani.Haqiqatpal@fao.org

Mobile: +93-(0)700 284879

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Cover page

**A lush irrigated wheat field in Rorabat village of Dand district (Kandahar) [29-Apr-07]
Photo courtesy: Shams Uddin Shams, Region Field Assistant (RFA), FAO Area Office, Kandahar**

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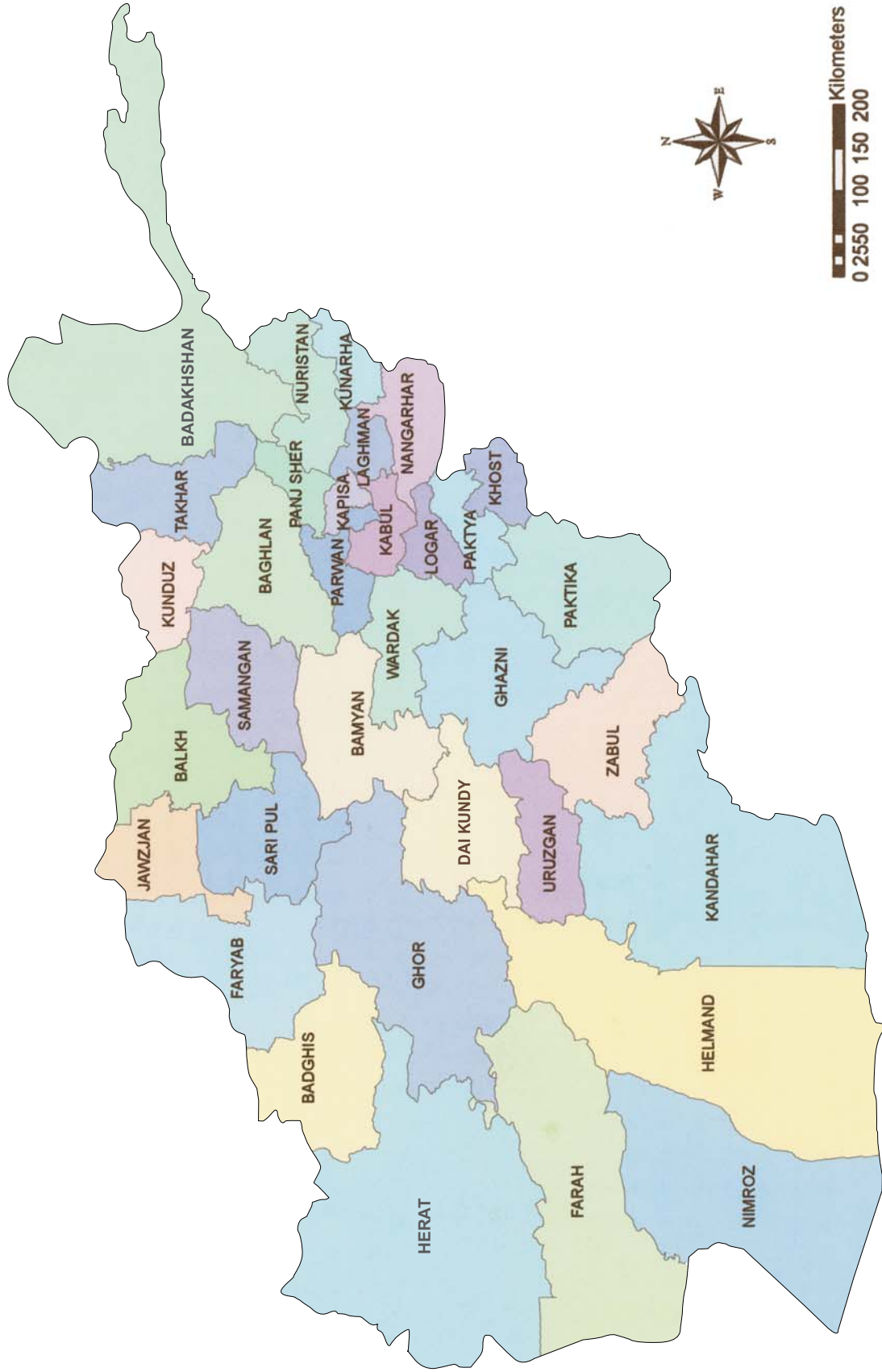
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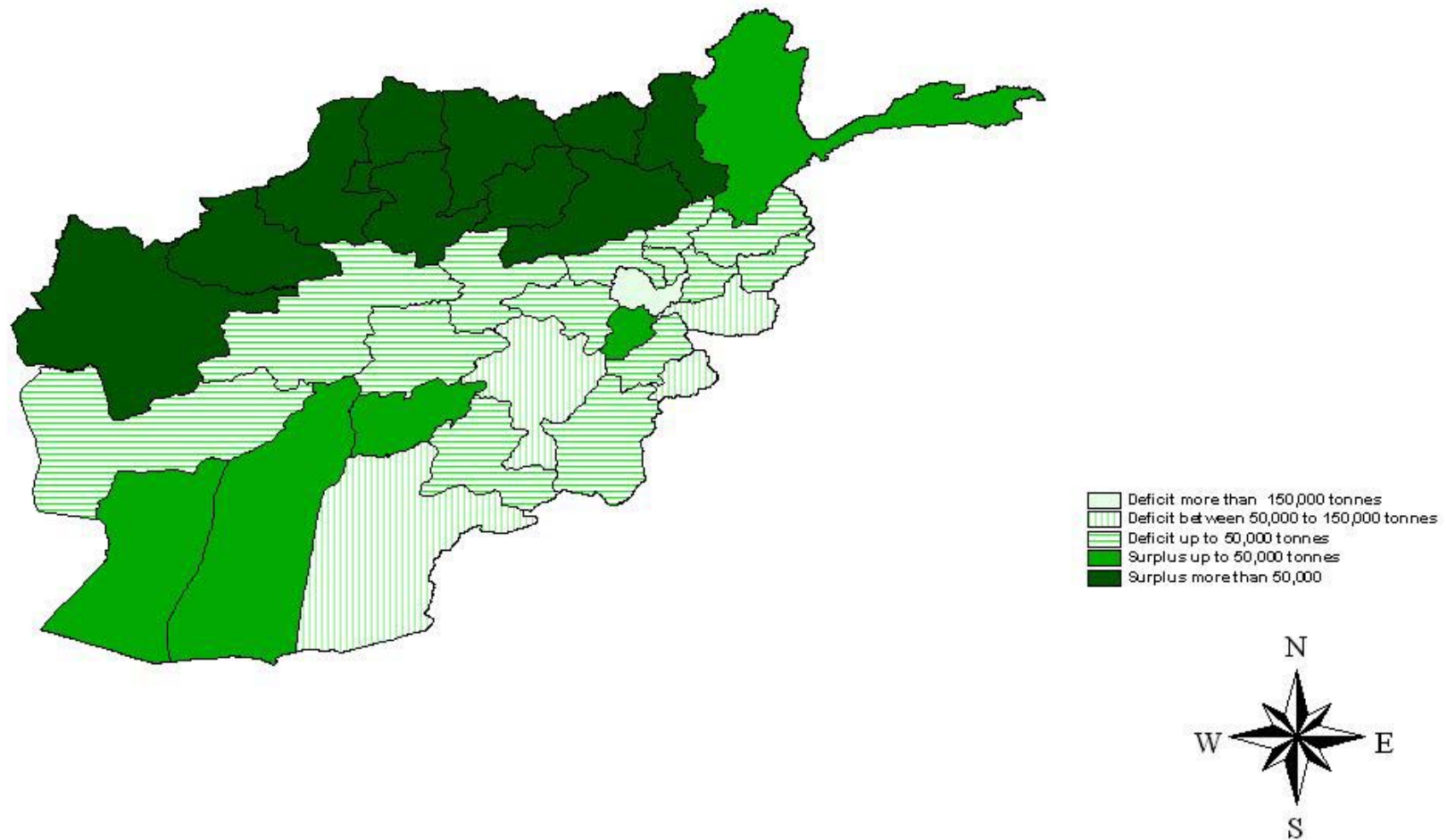
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MAP OF AFGHANISTAN



Source: Central Statistics Office

Wheat Balance in 2007



Ministry of Agriculture, Irrigation and Livestock (MAIL)

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Agriculture Prospects Report (APR)¹

1. Introduction

This report provides preliminary estimates of the 2007 cereal crop outputs, quantifies the cereal surplus/deficit, identifies areas needing actions or interventions, and supplies data on retail market prices of agricultural commodities and services in various provinces. The report is intended for the use of Ministry of Agriculture, Irrigation and Livestock (MAIL), Central Statistics Office (CSO), international agencies, and others.

The APR is mainly based on the reports filed by the provincial missions of MAIL that visited 28 provinces (out of 34) in the country. The last mission returned to Kabul in the fourth week of April. Following provinces were visited by the MAIL missions:

- North (total 5 provinces) Faryab, Juzjan, Sar-i-Pul, Balkh, Samangan; 5 provinces
- North-East (4) Bughlan, Kunduz, Takhar, and Badakhshan; 4 provinces
- West (3) Herat and Badghis; 2 provinces
- West Central (2) Ghor and Bamyan; 2 provinces
- Central (6) Kabul, Parwan, Panjsher, Kapisa, Logar and Wardak; 6 provinces
- South (4) Paktya, Khost and Ghazni; 3 provinces
- East (4) Nangarhar, Laghman, Kunarha, and Nooristan; 4 provinces
- South-West (6) Kandahar and Zabul; 2 provinces

The MAIL missions held discussions with provincial and district staff and conducted survey of over 320 farmers across the visited provinces. The mission collected qualitative and quantitative information on rainfall condition, temperature, crop stages by types of crops, water stress to various crops, planting progress, irrigation status, crop area (last year, a normal year and current year), expected crop yield (last year, a normal year and current year), and adverse conditions or factors (e.g. drought, floods, avalanche, frost, pests, diseases, etc.), availability of inputs, etc. Besides these the collected information included, (i) adverse conditions for livestock, and (ii) most popular improved variety of wheat seeds used in the province, and their main source. In the farmer questionnaire, the collected data included weather condition; area under irrigated wheat, rainfed wheat and barley (last year, a normal year and current year) and production (last year, a normal year and estimated this year).

There are two MAIL staff members in each province who collect information and data for FAAHM on a regular basis. Codan radios installed by MAIL and FAO in 34 provinces were used for more frequent contacts with them. Cellular phones were also used for the said purpose.

Regional Field Assistants (RFA) of FAO - who are posted in Kunduz, Herat, Kandahar and Jalalabad - provided consolidated information at the regional level. Various technical departments of MAIL in the provinces and in Kabul provided a wealth of information in their areas of competence. Information and data provided by FAO projects and units (particularly ERU, Emergency Irrigation Rehabilitation Project, Seed, Veterinary Services, and Dairy), USGS Agro-met project, WFP, and FAO mission that visited the country were also very important sources of information for this APR.

¹ Some information in this APR has been used by MAIL and IMF prior to its formal release

In December 2006 MAIL provided qualitative information on good production prospect for the current year².

Agriculture Prospects Report – December 2006

The rainfall for the current crop season started in the earlier part of September. In October 2006 the rainfall was higher than in October 2005 in virtually all parts of the country. The amount of rainfall in October was also higher than the LTA in all parts of the country, except Baglan, Jawzan and Samangan. Rainfall amounts received in West, South-west and North-west regions are specifically favorable this year. In November, the observed rainfall amount was higher in virtually all regions but Bamyan, Kandahar and Ghor. In Kabul, Faryab, and Gazni the snowing started in November, reflecting overall good prospects of rainfall in these areas in the future months. On overall basis, rainfall amounts in October/November 2006 are much higher than in 2005 October/November.

The weather conditions in various provinces were reported to be conducive to satisfactory land preparation for wheat and barley. The MAIL missions reported that the sowing of irrigated wheat and barley is progressing satisfactorily in all provinces. The land preparation and the sowing for the rainfed wheat are also on stream. The missions observed that the timely planting has been the salient feature of the 2007 irrigated wheat, barley and rainfed wheat. Briefly, the situation so far suggests that these crops have good prospects both in term of area coverage and yield.

Farmers in Afghanistan are looking forward to having good cereals harvest this year. Both irrigated and rainfed crops are generally in very good condition. Main factors that contributed to good cereal production prospects in 2007 are (i) adequate and well distributed rainfall (Annex 1), (ii) production and distribution of 13,383 tonnes of high-yielding Quality Declared Seed (QDS) (Annex 2), (iii) increased use of chemical fertilizers, and (iv) timely monitoring and control of pests and diseases.



Kandahar: Irrigated local variety of wheat (left) and irrigated improve variety of wheat (right) in Harz village in Dand district (Photo Courtesy: Shams Uddin Shams, RFA; 29 April 2007)

2. Weather condition

The weather condition was generally very favorable for this year's winter and spring crop growing. The country experienced well above normal rainfall in November and December. The accumulated rainfall in October to March 2007 is also well above normal in all parts of the country. (Annex 1) Qualitative reports from the field suggest that weather condition in April and part of May has also been generally favorable to the standing crops.

² from Agriculture Prospects Report released by MAIL on 3 December 2006

3. Cereal Area, Production and Requirement

The total area used for cereals in 2007 is estimated at 3 million hectares. Production of cereals is estimated at 5.6 million tonnes, of which wheat is 4.5 million tonnes (80%). So far 2007 is adjudged to be a very good year for crop production.

Table 1: Forecasted Area and Production of different Cereals in 2007³

Crop	Area (‘000 ha.)	Yield (tonnes/ha.)	Production (‘000 tonnes)
Irrigated wheat (Winter & Spring)	1,071	2.690	2,878
Rainfed wheat (Winter & Spring)	1,395	1.150	1,606
All wheat	2,466	1.820	4,484
Milled rice (paddy yield)	170	3.250	370
Maize	137	2.628	360
Barley	236	1.568	370
Overall	3,009		5,584

The year to year changes in the production of cereals in the last five years are shown in Table 2. The 2003 and 2005 were years with very good cereal harvest mainly due to favorable weather conditions. In 2004 and 2006 cereal production dipped considerably down due to reduced rainfall in all parts of the country. The production of wheat in 2007 is going to be 33% higher than the production in 2006. Overall production of cereals in 2007 is estimated at 5.6 million tones, which is 26% more than in 2006. (Table 2)

Table 2: Cereal production⁴ in Afghanistan (2003-2007) (‘000 tonnes)

Crop	2003	2004	2005	2006	2007
Irrigated wheat	3,017	1,867	2,728	2,604	2,878
Rainfed wheat	1,345	426	1,538	759	1,606
Total wheat	4,362	2,293	4,266	3,363	4,484
Milled Rice	291	310	325	361	370
Maize	310	234	315	359	360
Barley	410	220	337	364	370
Total cereals	5,373	3,057	5,243	4,447	5,584

Barley production is estimated at 370,000 tonnes. Assuming normal planting/growing conditions for paddy and maize in the coming months, milled rice and maize production in 2007 is forecast to reach 370,000 tonnes and 360,000 tonnes, respectively.

³ Preliminary estimates

⁴ Sources: FAO/WFP Food and Crop Assessment Mission for 2003-2004; MAIL 2005-2007



**A farmer irrigating his wheat fields in Naw Daeh canal irrigation scheme, Farah province
[Photo Courtesy: Najib Mohammad, RFA]**

The total cereal requirement in 2007 is estimated at 6.1 million tonnes, of which 4.9 million tonnes (80%) is wheat. Domestic production of cereals is estimated at 5.6 million tonnes, which means that the country will be 91% self-sufficient in food production this year. The total import requirement of cereals – including commercial import and food aid - is estimated at 526,000 tonnes, which includes 433,000 tonnes of wheat and 93,000 tonnes of milled rice. (Table 3 and Annex 5) Given the past trend, out of the total import requirement in 2007, little above three-fourth (400,000 tonnes) is expected to come through commercial import.

Table 3: The 2007 Cereal Balance Sheet ('000 tonnes)

Crop	Requirement					Domestic Production	Cereal Surplus/Deficit
	Food	Seed	Feed	Loss	Total		
Irrigated wheat		187	--	432		2,878	
Rainfed wheat		116	--	241		1,606	
All wheat	3,941	303	0	673	4,917	4,484	-433
Milled rice	419	18	0	26	463	370	-93
Maize	49	8	249	54	360	360	0
Barley	25	26	263	56	370	370	0
Total	4,434	355	512	809	6,110	5,584	-526

Given the favorable weather pattern, if pests and diseases are contained, production of horticulture crops in 2007 is expected to be higher than the last year by at least 7%.

4. Livestock

Livestock numbers in Afghanistan in 2003 were estimated at: 3.72 million cattle, 8.76 million sheep, 7.28 million goats, 1.59 million donkeys, 141,000 horses, 175,000 camels and 12.16 million chickens.⁵ A third of small ruminants and more than half of horses and camels in the country are kept by nomadic livestock owners.

Overall situation

Pasture and water availability this year is generally satisfactory so far. Livestock diseases causing problems this year included PPR, Enterotoxaemia, Anthrax, sheep pox, FMD and Avian Influenza. A late winter outbreak of PPR was observed in Badakhshan, Takhar, Kunduz, Baghlan and some other parts of the country. Mortality and abortion of the hosts (sheep and goats) were the main results. CCPP was prevalent in cold areas. Rabies created problems in Takhar, Badakhshan and parts of Nangharhar. Some diseases cannot be contained because of the costs involved in the treatment. For example, FMD control is not effective partly because vaccination is seen as quite expensive compared to the impact of disease since affected animals rarely die; Newcastle disease control measures are effective because the vaccination is seen as affordable to farmers in light of the consequences of an outbreak, i.e. significant flock mortality.

The poultry industry did not suffer severe effects of this year's H5N1 outbreak, largely as a result of quick and appropriate government responses in terms of culling and compensation. H5N1 has apparently disappeared from Afghanistan now. All outbreaks detected so far have occurred within days to two weeks after outbreaks in Pakistan and all have shown a pattern of spread from Nangharhar province westward and radially outward.

Latest reliable data on livestock number and resources are not available. However, given the favorable rainfall pattern, disease control, and very encouraging progress made in the field of animal production, overall livestock production (milk, meat and egg) in 2007 is forecasted to be at least 5% higher than in 2006.

⁵ Source: FAO Livestock Census, 2003



Kunduz; 29/04/2007: Sheep being taken from Seal Bord Mullah Khan village, Khan Abad district to pasture areas in a nearby district (Photo Courtesy Abdul Ghaffar, RFA)

Livestock production schemes

Closely working with MAIL, FAO has piloted projects for the establishment of private Integrated Dairy Production Schemes in Jalalabad, Kandahar, Kabul, Mazar and Kunduz. Integrated Dairy Scheme Development Programme of FAO supports the cooperative dairy farmers in Kabul, Mazar, and Kunduz provinces in collection, processing and marketing of milk and dairy products. The Milk Collection Centers established by FAO in various rural areas purchase raw milk on a daily basis and process that into butter, yoghurt, chaka and pasteurized milk.

ERU distributed 600 milking cows in Balkh, Nangarhar and Kandahar to vulnerable farming families as an optional, diverse livelihood package under a UNDP project funded by Japan.



A milking cow distributed by ERU in the autumn 2006 with a calf in Jamali village of Kama District in Nangarhar (Photo courtesy: Khushal Asifi, Area Agronomist, ERU/Nangarhar)

Guzgergah dairy plant in Kabul will have its facelift after the on-going installation work undertaken by the Maxcare (equipment supplier) comes to a close shortly. This processing plant has Raw Milk Receiving Dock, with a can-reception system, a weighing bowl, a recording system as well as a dump tank, where weighed milk is collected before it is pumped through the chiller. There is a section in the plant where hot water generator and the air compressor are located, and the main processing section, where a milk pasteurization system (heart of the dairy plant) is installed together with the in-line cream separator. The capacity of pasteurizer is 1,000 litres per hour. This means, in a shift of 8 hours the system can pasteurize around 6,000 litres of milk. In the processing hall, butter churn and the batch ice-cream freezer are also being installed. The pasteurized milk is transferred to the milk storage tanks. There are two milk storage tanks of 5,000 litres capacity each, one for storing chilled raw milk and the other for storing pasteurized milk, before being pumped to the pouch filling machine. The machine can pack 2,500 packets of one liter and half liter pouches per hour.

A follow up phase of Integrated Dairy Scheme in Herat has started from May 2007.

Animal Feed Industry

The development of private Animal Feed Industry in Afghanistan is very important. The FAO scheme is profitable, unique and beneficial to small livestock producers, including women. Assistance in privatization of FAO-established initiative in animal feed production is desirable.

5. Adverse Factors in crops and their control

Crops in eighteen provinces were adversely affected by the floods. Adversely affected provinces include Faryab, Uruzgan, Daikunde, Kunduz, Bamyan, Baghdis, Kapisa, Kabul, Herat, Kunarha, Parwan, Logar, Nuristan, and Wardak. Net crop area damaged due to the 2007 floods is estimated at 7,500 ha.



**Harirud River - air photo in Chaghcharan of Ghor province during UN joint mission
(Photo: Najib Mohammad, RFA and a member of the UN joint mission to Ghor)**

Flood also affected horticulture crops adversely, specifically grapes (in Parwan), apple, pears, almond and apricot (in Wardak). Frost inflicted moderate damage upon wheat areas in parts of Kunduz, Badakshan, Parwan, and Logar, in particular. Frost caused some adverse effect in the case of almond and peach (Kunduz and Logar), and apricot (Logar).

PPQD fielded missions to 18 provinces for the monitoring and control of various pests, including locust, sunn pest, melon fly and potato Colorado Beetle. Fund for the operation came from the government's coffer. Faster and greater mobility of MAIL staff was possible, thanks to the pesticides and vehicles provided by FAO-implemented projects. An FAO project proposal for emergency response to melon fly and Colorado beetle is likely to be funded by the Government of Norway. A pipeline project of PPQD aims to control melon fly in Faryab through emergency IPM. There are some reported cases of the incidence of Colorado potato beetle in important potato growing areas (e.g. Kahmard district of Bamyan). Overall situation of diseases/pests is reportedly under control, but some concern exists over pest outbreaks, including the possible locust swarm invasion from Turkmenistan. Contingency plan for emergency control of the pests/diseases mentioned above is needed.

Further details on adverse factors by province are available at FAAHM.

6. Adverse Factors in livestock and their control

Cattle, sheep, goats and chickens are being vaccinated against endemic animal diseases such as *peste des petits ruminants* (PPR), enterotoxaemia, anthrax, sheep pox, and Newcastle disease. For the Kuchi nomads and farmers, the provision of vaccines and animal drugs is a top priority to prevent the loss of any more breeding animals from livestock diseases. The fight against rabies is also on stream to protect people from this fatal disease. Many farmers and nomads are poor and cannot afford to pay the full price for the vaccines.

Rinderpest⁶

An FAO project “Controlling Trans-boundary Animal Diseases in Central Asia”, funded by the Italian Government through the Special Trust Fund for Food Security, started its activities in August 2004. One of the main objectives of the project is to bring the Central Asian beneficiary countries (Afghanistan, Pakistan, Tajikistan, Turkmenistan and Uzbekistan) to be recognized officially free from rinderpest. The recognition of being officially free from this disease is achieved through the submission of appropriate documentation to the World Animal Health Organization (OIE).

Afghanistan is being assisted by FAO in this process through the provision of laboratory equipment, training, supplies of diagnostic kits in order to be able to prove that rinderpest is no longer present in the country⁷. To fulfill the requirements of the OIE, a sero-surveillance campaign was launched during 2006, in which 6,700 blood samples from cattle and buffaloes were taken throughout the country and tested at the Central Veterinary Diagnostic Laboratory in Kabul. The test results proved that rinderpest no longer exists in Afghanistan. These results are encouraging because the other beneficiary countries of the project are also in the similar, favorable situation. In order for completing the process and acquire sufficient data for the preparation of a dossier to OIE in 2007, the second round of sero-surveillance will be launched. If the results from the second surveillance confirm the previous findings, Afghanistan will be eligible to be declared officially free from rinderpest.

Avian Influenza

Another FAO project “Regional Network for Avian Influenza in Central Asian countries” started its activities in August 2006. The project is supported by Asian Development Bank (ADB) and FAO through Special Fund for Emergency and Rehabilitation Activities (SFERA). The main purpose of this project is capacity building through training.

The beneficiary countries of this regional network are Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkmenistan and Uzbekistan. Recognizing the trans-boundary nature of Avian Influenza, the project also aims to develop a harmonized approach to surveillance and its control in the neighboring countries. Afghanistan was supported through the network in implementation of an Emergency Assistance program for Avian Influenza, which was implemented following its outbreaks in 2006. The main purpose of this program was to prove that the areas affected during the 2006 epidemic of Avian Influenza were actually to be considered free from the disease after the completion of the field operations carried out by the Veterinary Services. Since August 2006, about 4,000 households have been visited and as of today more than 6,000 blood samples from domestic poultry have been collected and tested. Culling, vaccination, disinfection and compensation activities were carried out in March 2007. The strategy adopted by the Veterinary Services of MAIL is to carry out culling of affected birds within a 3 km radius from the infected areas.

The analysis of the results so far indicates that H5N1 is not enzootic in Afghanistan, i.e., the several outbreaks most probably represent re-introductions from outside Afghanistan, not continued

⁶ Rinderpest is a devastating infectious viral disease of cattle and buffaloes with a mortality rate of virtually 100%. The presence of this disease in a country will inhibit any possibility of international trade.

⁷ In Afghanistan the last cases of rinderpest occurred in 1999

circulation of the virus within Afghanistan. The analysis further suggests that it is necessary to continue surveillance activities in Jalalabad and Kabul areas in order to verify the absence of on-going outbreaks and detect future re-introductions as early as possible.

Further details on the adverse factors for livestock by province are available at FAAHM.

7. Wheat seed production

During 2006, implementing partners⁸ of the MAIL/EC/FAO seed project produced 9,383 tonnes of wheat QDS, of which the private sector partners accounted for 52% of the total quantity produced. Other producers in the country distributed about 3,000 tonnes quality wheat seed. Details on the amount of various types of wheat seeds produced by the FAO seed project are shown in Annex 2.

8. Approach to reduce food deficit

Afghanistan is over 90% self-sufficient in cereal production in a good year. It will be far much easier for Afghanistan to narrow the gap in food deficit by reducing pre and post harvest losses of the cereals. For example, the pre-harvest cereal loss due to the locust infestation can be as high as one-fifth of the total production potential. Similarly, if post harvest losses are reduced by 3 percent points, about 75,000 tonnes to 100,000 tonnes of cereals will be available for human consumption. In this connection, the seven areas of interventions -- in order of priority -- are the control of: the locust, sunn pest, rodents, weeds, rust (through varietal changes and improvements), and smut (treatment of seed before sowing/planting), and use of proper storage facilities⁹.

9. Price of agricultural commodities¹⁰

Table 4 shows a substantial annual increase in the price of local wheat in majority of the regions. However, given the latest months' price trend, and given good prospects of cereal production in 2007, the national price of wheat is likely to stabilize at 13 Afs/kg.

Table 4: Trend in commodity prices (Afs) in April 2007

Commodity	Region	April 2006	March 2007	April 2007	% increase on March 2007	% increase on April last year
Wheat	North	10.4	13.2	13.0	-2	25
Wheat	North-East	12.0	14.0	14.0	--	17
Wheat	West	11.7	12.7	12.7	--	9
Wheat	West-Central	12.0	14.0	15.0	7	25
Wheat	Central	11.4	12.2	12.4	2	9
Wheat	South	11.3	12.5	12.5	--	10
Wheat	East	10.7	11.7	11.3	-4	5
Wheat	South-West	10.8	13.8	13.8	--	28
Wheat	Overall	11.2	13.0	12.9	--	15
Beef	Overall	131.4	130.7	130.0	-1	-1
Mutton	Overall	178.3	182.5	184.2	1	3
Chicken	Overall	71.4	84.6	85.4	1	20
Agri. Labor	Overall	194.8	181.0	181.3	--	-7
Urea	Overall	12.5	12.6	12.6	--	1
DAP	Overall	23.4	22.6	22.9	1	-2

⁸ Public sector Improved Seed Enterprises (ISEs), NGO partners and Private sector partners

⁹ These are useful for reducing post-harvest and quality losses, and for having better selling price of the produce

¹⁰ Source FAAHM "Agricultural Commodity Price Bulletin" (Year 3: Volume 4)

10. Plan for 2007

Harvesting of wheat has already started in the eastern regions of the country. Harvesting in other parts is on stream and will be gradually accomplished. The APR will be updated by MAIL on a regular basis as situation may change rapidly, especially if outbreaks of pests or diseases occur.



**Local wheat harvest in Mashinai village of Qarghai district in Laghman
(Photo courtesy: Shah Wali, RFA; 4 May 2007)**

Conduct of probability sample surveys is essential for bringing improvements in the reliability of crop data. In 2007, FAAHM is going to conduct household sample survey in twelve provinces. The purpose of the survey is to collect: (i) crop area and yield data at the household level and (ii) basic agricultural data at the district level. Crop cuts surveys will be conducted in Nangarhar, Kunduz and Herat. It is being conducted in Nangarhar in a small scale now. The main purpose of the 2007 crop cuts survey is to train local staff in its conduct.

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

Region	Province	Station	Oct	Oct 06	% LTA	Nov	Nov 06	% LTA	Dec	Dec 06	% LTA	Jan	Jan 07	% LTA	Feb	Feb 07	% LTA	Mar	Mar 07	% LTA	Cumulative (Oct to Mar)		
			LTA	Actual	Oct 06	LTA	Actual	Nov 06	LTA	Actual	Dec 06	Jan	Actual	Jan 07	LTA	Actual	Feb 07	LTA	Actual	Mar 07	LTA	Actual	% LTA
North	Faryab	Maimana	0.0	0.0	100	28.0	41.7	149	35.0	49.7	142	47.9	30.0	63	55.8	91.4	164	83.9	68.5	82	250.6	281.3	112
North	Juzjan	Sheberghan	0.0	0.0	100	15.0	22.2	148	29.0	30.5	105	40.8	19.0	47	43.7	36.8	84	53.1	15.4	29	181.6	123.9	68
North	Sari Pul	Sari Pul	0.0	1.0	>100	0.0	29.0	>100	0.0	27.5	>100	89.0	40.3	45	18.3	56.2	307	10.9	71.1	652	118.2	225.1	190
North	Balkh	Mazar	0.0	0.0	100	11.0	10.0	91	21.0	33.0	157	28.9	35.3	122	37.9	33.0	87	46.7	55.0	118	145.5	166.3	114
North East	Baghlan	Baghlan	9.0	2.6	29	24.0	38.8	162	23.0	20.6	90	41.1	8.4	20	41.8	31.4	75	84.1	95.7	114	223.0	197.5	89
North East	Kunduz	Kunduz	0.0	3.0	>100	26.0	198.0	762	36.0	66.0	183	44.2	112.0	253	0.0	231.0	>100	75.3	547.0	726	181.5	1157.0	637
North East	Takhar	Taluqan	0.0	0.0	100	0.0	15.0	>100	0.0	29.0	>100	77.8	27.0	35	78.1	34.0	44	131.1	64.0	49	287.0	169.0	59
North East	Badakshan	Faiz Abad	25.6	20.0	78	29.0	55.8	192	32.0	15.5	48	45.4	18.0	40	63.0	79.8	127	98.2	84.0	86	293.2	273.1	93
West	Herat	Herat	0.0	0.0	100	9.0	76.0	844	9.0	21.4	238	49.6	25.0	50	39.0	30.0	77	49.9	83.3	167	156.5	235.7	151
West	Farah	Farah	0.0	0.0	100	3.0	5.0	167	3.0	8.5	283	22.2	5.5	25	24.8	30.5	123	25.3	3.0	12	78.3	52.5	67
Central	Kabul	Darul Aman	0.0	0.0	100	1.4	46.5	3321	0.0	81.8	>100	40.5	17.7	44	71.5	65.7	92	64.3	89.9	140	177.7	301.6	170
Central	Kabul	Kabul	0.0	2.8	>100	11.0	44.5	405	25.0	136.1	544	33.1	12.3	37	58.6	27.1	46	63.9	86.3	135	191.6	309.1	161
Central	Kabul	Kariz Mir	0.0	0.0	100	27.0	58.0	215	30.0	137.0	457	46.9	13.0	28	68.8	24.0	35	91.7	125.0	136	264.4	357.0	135
Central	Kabul	Paghman	0.0	8.0	>100	43.0	111.0	258	52.0	138.0	265	62.1	20.8	33	68.5	84.4	123	80.9	33.0	41	306.5	395.2	129
Central	Kabul	Sarobi	0.0	1.0	>100	15.0	25.6	171	29.0	33.5	116	44.4	9.0	20	54.9	34.0	62	46.5	117.0	252	189.8	220.1	116
Central	Parwan	Jabul Seraj	0.0	0.0	100	22.0	62.0	282	36.0	144.0	400	65.3	15.0	23	88.2	83.6	95	98.3	207.9	211	309.8	512.5	165
Central	Logar	Logar	0.0	0.0	100	9.0	23.2	258	20.0	113.0	565	34.8	5.0	14	0.0	39.0	>100	44.3	60.0	135	108.1	240.2	222
South	Paktya	Gardiz	0.0	0.0	100	11.0	67.7	615	11.0	95.5	868	40.4	4.1	10	70.8	95.0	134	64.0	65.9	103	197.2	328.2	166
South	Ghazni	Ghazni	0.0	0.0	100	11.0	43.6	396	11.0	62.0	564	46.1	9.0	20	36.4	41.0	113	55.0	59.0	107	159.5	214.6	135
East	Nangharhar	Ghaziabad	0.0	3.0	>100	0.0	6.0	>100	4.6	43.0	935	12.9	0.0	0	25.1	39.0	155	37.7	64.0	170	80.3	155.0	193
East	Nangharhar	Jalalabad	0.0	4.4	>100	8.0	12.0	150	16.0	30.0	188	17.0	0.0	0	0.0	7.9	>100	63.2	76.0	120	104.2	130.3	125
South West	Kandahar	Kandahar	0.0	0.0	100	6.0	134.0	2233	6.0	162.0	2700	49.1	13.6	28	35.1	68.0	194	26.3	45.0	171	122.5	422.6	345

Sources:

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

Annex 2: Breeder , Foundation and Quality Declared Seed (QDS) produced by the FAO project (GCP/AFG/018/EC) in the last four years

S/No	Variety	Breeder Seed Kg/year					Foundation Seed tonnes/Year					QDS tonnes/Year				
		2003	2004	2005	2006	Total	2003	2004	2005	2006	Total	2003	2004	2005	2006	Total
1	MH-96	0.100	2.440	0.341	0.404	3.285	2.00	44.00	8.46	--	54.46	35	800	328	--	1,163
2	Herat-99	0.775	3.409	1.500	1.775	7.459	18.00	64.00	35.50	14.65	132.15	322	1,175	978	450	2,925
3	Balkh-66	0.200	--	--	0.315	0.515	4.50	--	--	2.40	6.90	81	3	--	60	144
4	Mazar 99	1.850	--	0.748	1.200	3.798	44.00	--	17.00	31.05	92.05	790	5	533	942	2,270
5	Gul 96	1.825	0.118	0.783	0.590	3.316	42.50	4.00	19.00	17.56	83.06	782	83	575	1,150	2,590
6	Ghori-96	0.800	--	0.850	0.540	2.190	18.50	--	18.99	39.06	76.55	330	3	580	733	1,646
7	Lalmi-1	2.000	--	0.950	0.340	3.290	4.50	--	20.00	6.40	30.90	81	5	605	620	1,311
8	Lalmi-2	0.900	0.378	0.753	0.797	2.828	47.00	11.00	18.50	48.64	125.14	847	238	569	1,279	2,933
9	Lalmi-3	1.500	0.370	0.450	1.114	3.434	20.00	11.00	8.40	20.25	59.65	358	235	326	504	1,423
10	Diyama-96	0.200	2.193	0.318	0.646	3.357	35.00	--	8.80	20.88	64.68	629	8	336	521	1,494
11	Sn`b	--	--	0.308	0.348	0.656	4.50	--	7.00	8.05	19.55	81	--	293	503	877
12	Cham-6	--	0.050	0.371	0.221	0.642	4.00	--	8.00	27.05	39.05	119	--	317	--	436
13	Rona-96	--	--	0.200	0.857	1.057	--	--	4.80	5.40	10.20	--	--	240	--	240
14	Pamir-94	0.800	--	0.900	0.747	2.447	18.50	--	18.20	7.05	43.75	318	3	617	194	1,132
15	Roshan-96	1.950	1.832	0.600	0.389	4.771	44.00	39.00	14.50	13.30	110.80	736	880	473	178	2,267
16	Amu-99	1.350	1.413	0.428	0.848	4.039	30.50	29.00	9.50	26.95	95.95	514	666	357	689	2,226
17	Parva-2	0.400	--	0.200	0.950	1.550	9.50	--	34.00	32.87	76.37	159	3	245	851	1,258
18	Solh-2	0.600	0.315	0.983	0.569	2.467	14.00	9.00	24.00	15.97	62.97	236	200	701	--	1,137
19	PBW-154	0.800	0.180	0.988	1.692	3.660	18.00	5.00	23.00	38.53	84.53	303	100	677	--	1,080
20	HUW-234	--	--	0.368	0.348	0.716	--	--	8.00	1.00	9.00	--	--	317	--	317
21	HD-2285	--	--	0.130	0.320	0.450	--	--	3.50	1.00	4.50	--	--	119	27	146
22	Bakhtawar-92	0.550	3.002	1.263	1.799	6.614	12.00	65.00	22.85	16.61	116.46	200	1,428	668	426	2,722
23	Mayson	--	--	--	0.242	0.242	--	--	--	--	0.00	--	--	--	--	--
24	Kouz/AA/Kouz	--	--	--	0.350	0.350	--	--	--	--	0.00	--	--	--	--	--
25	FDLu/NG8695	--	--	--	0.225	0.225	--	--	--	--	0.00	--	--	--	--	--
26	Pastor	--	--	0.728	0.600	1.328	--	--	--	--	0.00	--	--	--	--	--
27	Ghazna-97	0.250	--	--	--	0.250	--	--	--	5.33	5.33	--	--	--	145	145
28	/4/Clif	--	--	--	0.150	0.150	--	--	--	--	0.00	--	--	--	--	--
29	UREs/PRC	--	--	0.130	0.224	0.354	--	--	--	--	0.00	--	--	--	--	--
30	IRENA/Weaver	--	--	0.230	--	0.230	--	--	--	--	0.00	--	--	--	--	--
31	WEBBLL-1	--	--	0.130	0.200	0.330	--	--	--	--	0.00	--	--	--	--	--
32	Takhar-96	0.150	--	--	--	0.150	--	--	--	--	0.00	4	--	--	111	115
Total		17.000	15.700	14.650	18.800	66.150	391.00	281.00	332.00	400.00	1404.00	6,925	5,835	9,854	9,383	31,997

Annex 3: Area and Production of Wheat in 2007 by province (May 2007 Estimates)

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	220	2.61	575	710	1.11	786	930	1.46	1,361
Faryab	42	2.62	110	190	1.20	228	232	1.46	338
Juzjan	50	2.62	131	110	1.10	121	160	1.58	252
Sar-i-Pul	25	2.62	66	120	1.10	132	145	1.37	198
Balkh	87	2.62	228	160	1.05	168	247	1.60	396
Samangan	16	2.50	40	130	1.05	137	146	1.21	177
NORTH-EAST	220	2.64	581	352	1.23	432	572	1.77	1,013
Bughlan	54	2.80	151	80	1.25	100	134	1.87	251
Kunduz	91	2.60	237	22	1.20	26	113	2.33	263
Takhar	50	2.60	130	140	1.20	168	190	1.57	298
Badakhshan	25	2.50	63	110	1.25	138	135	1.49	201
WEST	144	2.65	381	240	1.24	298	384	1.77	679
Herat	97	2.62	254	140	1.20	168	237	1.78	422
Farah	24	2.62	63				24	2.63	63
Badghis	23	2.80	64	100	1.30	130	123	1.58	194
WEST-CENTRAL	35	2.40	84	48	0.90	43	83	1.53	127
Ghor	22	2.50	55	40	0.88	35	62	1.45	90
Bamyan	13	2.20	29	8	1.05	8	21	1.76	37
CENTRAL	111	2.86	318	15	1.27	19	126	2.67	337
Kabul	21	2.80	59	1	1.05	1	22	2.73	60
Parwan	23	2.60	60	3	1.33	4	26	2.46	64
Panjsher	6	2.60	16	2	1.33	3	8	2.38	19
Kapisa	9	3.00	27				9	3.00	27
Logar	26	3.00	78	8	1.20	10	34	2.59	88
Wardak	26	3.00	78	1	1.05	1	27	2.93	79
SOUTH	98	2.59	254	5	1.00	5	103	2.51	259
Paktya	17	3.00	51	1	1.05	1	18	2.89	52
Paktika	15	2.50	38	2	1.05	2	17	2.35	40
Khost	12	2.50	30				12	2.50	30
Ghazni	54	2.50	135	2	0.88	2	56	2.45	137
EAST	72	2.63	189	10	0.90	9	82	2.41	198
Nangarhar	50	2.62	131	8	0.88	7	58	2.38	138
Laghman	13	2.62	34	1	0.88	1	14	2.50	35
Kunarha	8	2.62	21				8	2.63	21
Nooristan	1	2.50	3	1	0.88	1	2	2.00	4
SOUTH-WEST	171	2.90	496	15	0.93	14	186	2.74	510
Kandahar	38	3.00	114	1	0.88	1	39	2.95	115
Helmand	75	3.00	225				75	3.00	225
Zabul	12	3.00	36	1	0.88	1	13	2.85	37
Nimroz	14	2.62	37	1	0.88	1	15	2.53	38
Uruzgan	27	2.62	71	2	1.05	2	29	2.52	73
Daikunde	5	2.62	13	10	0.88	9	15	1.47	22
TOTAL	1,071	2.69	2,878	1,395	1.15	1,606	2,466	1.82	4,484

Source: FAAHM/MAIL

Annex 4: Wheat Balance in 2007 by Province (Preliminary estimates)

REGION/ Province	Settled population in 2007 (projected from CSO 2005 data) ('000)	Irrigated wheat area ('000 ha.)	Rainfed wheat area ('000 ha.)	Wheat Production ('000 tons)	Required for human consumption ('000 tons)	Seed ('000 tons)	Post harvest losses ('000 tons)	Surplus or Deficit ('000 tons)
NORTH	3,295.6	220	710	1,361	527.3	97.4	204.2	532.1
Faryab	874.9	42	190	338	140.0	23.1	50.7	124.2
Juzjan	470.5	50	110	252	75.3	17.9	37.8	121.0
Sar-i-Pul	492.1	25	120	198	78.7	14.3	29.7	75.3
Balkh	1,117.0	87	160	396	178.7	28.5	59.4	129.4
Samangan	341.1	16	130	177	54.6	13.6	26.6	82.2
NORTH-EAST	3,361.2	220	352	1,013	537.8	67.8	152.1	255.3
Bughlan	793.8	54	80	251	127.0	16.1	37.7	70.2
Kunduz	867.5	91	22	263	138.8	17.8	39.5	66.9
Takhar	861.4	50	140	298	137.8	20.4	44.7	95.1
Badakhshan	838.5	25	110	201	134.2	13.5	30.2	23.1
WEST	2,492.2	144	240	679	398.7	45.1	101.9	133.3
Heart	1,608.2	97	140	422	257.3	28.6	63.3	72.8
Farah	446.4	24	0	63	71.4	4.2	9.5	-22.1
Badghis	437.6	23	100	194	70.0	12.3	29.1	82.6
WEST-CENTRAL	1,004.7	35	48	127	160.8	10.1	19.1	-63.0
Ghor	609.9	22	40	90	97.6	7.2	13.5	-28.3
Bamyan	394.8	13	8	37	63.2	2.9	5.6	-34.7
CENTRAL	5,180.1	111	15	337	828.8	20.7	50.7	-563.2
Kabul	3,197.6	21	1	60	511.6	3.8	9.0	-464.4
Parwan	583.8	23	3	64	93.4	4.3	9.6	-43.3
Panjsher	135.7	6	2	19	21.7	1.2	2.9	-6.8
Kapisa	389.9	9	0	27	62.4	1.6	4.1	-41.1
Logar	346.0	26	8	88	55.4	5.2	13.2	14.2
Wardak	527.1	26	1	79	84.3	4.6	11.9	-21.8
SOUTH	2,461.1	98	5	259	393.8	17.6	38.9	-191.3
Paktya	486.7	17	1	52	77.9	3.1	7.8	-36.8
Paktika	384.2	15	2	40	61.5	2.8	6.0	-30.3
Khost	507.4	12	0	30	81.2	2.1	4.5	-57.8
Ghazni	1,082.8	54	2	137	173.2	9.6	20.6	-66.4
EAST	2,235.8	72	10	198	357.7	13.5	29.8	-203.0
Nangarhar	1,313.7	50	8	138	210.2	9.4	20.7	-102.3
Laghman	393.6	13	1	35	63.0	2.4	5.3	-35.7
Kunarha	397.6	8	0	21	63.6	1.4	3.2	-47.2
Nooristan	130.9	1	1	4	20.9	0.3	0.6	-17.8
SOUTH-WEST	2,973.7	171	15	510	475.8	31.1	76.7	-73.6
Kandahar	1,030.7	38	1	115	164.9	6.7	17.3	-73.9
Helmand	814.2	75	0	225	130.3	13.1	33.8	47.8
Zabul	268.2	12	1	37	42.9	2.2	5.6	-13.7
Nimroz	144.2	14	1	38	23.1	2.5	5.7	6.7
Uruzgan	309.4	27	2	73	49.5	4.9	11.0	7.6
Daikunde	407.0	5	10	22	65.1	1.7	3.3	-48.1
Total for settled	23,004.4	1,071	1,395	4484	3,680.7	303.2	672.6	-172.5
Total for unsettled	1,625.6	0	0	0	260.1	--	--	-260.1
Overall	24,630.0	1,071	1,395	4484	3,940.8	303.2	672.6	-432.6

Annex 5: Production and Requirements of various cereals in 2007

Crop	Population (‘000 no.)	Required for human consumption (kg/person)	Area (‘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			1,071	175		187	--	432		2,878	
Rainfed wheat			1,395	83		116	--	241		1,606	
All wheat	24,630	160	2,466	126	3,941	303	0	673	4,917	4,484	-433
Milled rice		17	170	105	419	18	0	26	463	370	-93
Maize		2	137	60	49	8	249	54	360	360	0
Barley		1	236	110	25	26	263	56	370	370	0
All cereals		180	3,009		4,434	355	512	809	6,110	5,584	-526

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

