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Ministry of Agriculture, Irrigation and Livestock



AGRICULTURE PROSPECTS REPORT



Ministry of Agriculture, Irrigation and Livestock
General Directorate of Planning and Policy
Statistics and Marketing Information Office

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Abbreviations

AEZ	Agro-ecological Zone
APR	Agriculture Prospects Report
CSO	Central Statistics Organization
DAIL	Department of Agriculture, Irrigation and Livestock (Provincial Office of MAIL)
DAP	Di-Ammonium Phosphate
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCO	Foreign and Commonwealth Office (British)
FEWS NET	Famine Early Warning Systems Network
FMD	Foot and Mouth Disease
MAIL	Ministry of Agriculture, Irrigation and Livestock
MY	Marketing Year (1 July thru 30 June)
PPQD	Plant Protection and Quarantine Department of MAIL
PPR	<i>peste des petits ruminants</i>
USDA	United States Department of Agriculture
USGS	United States Geological Survey
USAID	United States Agency for International Development
WFP	World Food Program

Acknowledgement

The main sources of information and data in this report are over 5,100 farmers across 34 provinces, 34 DAILs, technical departments of MAIL, and over 1,800 contract-growers of wheat seeds. Many thanks are due to farmers, projects, agencies and individuals for their help. MAIL appreciates contributions made by them in providing updated information and data. Thanks are also due to many others who contributed towards field work and helped with writing this report.

Cover photo: Irrigated wheat in Nawin Village of Enjil district in Herat Province

Photo by: Abdul Karim, DAIL, Herat

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Agriculture Prospects Report (APR)¹

1. Introduction

Crop assessment missions to 34 provinces were commissioned by MAIL in April and May, 2011. MAIL at Kabul fielded the crop assessment missions to the following 25 provinces:

- North Faryab, Juzjan, Sar-i-Pul, Balkh, Samangan (5 provinces)
- North-East Bughlan, Kunduz, Takhar, and Badakhshan (4 provinces)
- West Herat and Badghis (2 provinces)
- West Central Bamyan (1 province)
- Central Kabul, Parwan, Panjsher, Kapisa, Logar and Wardak (6 provinces)
- South Paktya, Khost and Ghazni (3 provinces)
- East Nangarhar, Laghman, and Kunarha (3 provinces)
- South-West Daikunde (1 province)

In addition, MAIL undertook crop assessment in the following, remaining 9 provinces with the help of Provincial Offices of MAIL (DAIL) and Regional Field Assistants (RFA) of FAO posted in Herat, Kandahar and Jalalabad:

- West Farah (RFA Herat was held responsible)
- West Central Ghor (RFA Herat)
- South Paktika (RFA Kandahar)
- East Nooristan (RFA Jalalabad)
- South West Kandahar, Helmand, Zabul, Nimroz, and Uruzgan (RFA Kandahar)

The MAIL and DAIL missions held discussions with the provincial and district staff and collected provincial level information and data on crop area/production, livestock condition and adverse factors (e.g. drought, floods, frost, pests, diseases, etc.). The missions also interviewed over 5,100 farmers across 34 provinces. They submitted their reports by the 2nd week of May. The assessment reports were processed and analyzed at MAIL and the results were discussed with the individual DAILs before finalizing this report.

The APR provides the estimates of MY 2011/12 cereal crop outputs and cereal surplus/deficit, based mainly on the above-mentioned missions' findings. The report is based on (i) updated assessment reports from DAIL, (ii) results of the farmers' survey and contract farmers' survey, (iii) historical data sets and (iv) information and data from other sources. As the primary aim of the assessment is to produce comparable and consistent official data, emphasis is laid more on the use of relative data reported by DAILs, farmers and others. For example, for validation and consistency checks, missions' data were compared with the benchmark crop data of various years, and with other historical data sets.

¹ Latest information on international, regional and domestic prices of agricultural commodity can be found in the "Agricultural Commodity Price Bulletin" issued by MAIL on the 21st of May, 2011.

Technical departments of MAIL in Kabul and in the provinces provided a wealth of information on current crop and livestock situation. Latest rainfall amount/distribution and satellite maps were also considered and used. Information and data provided by FAO projects, FAO area offices and units, USGS Agro-met project, FEWS NET, and WFP were also very important sources of information for this report.

2. Weather and crop condition

All areas of the country with the exception of the eastern region experienced good amount of rainfall in November and December, 2010. The amount and distribution of rainfall in January 2011 was not at all sufficient for optimal growth and development of crops and pasture. However, all parts of the country experienced reasonably good amount and distribution of rainfall in February and parts of March. In these months there were high hopes for a reasonably good harvest. Unfortunately, rainfall amounts in April were unsatisfactory especially in the main rainfed wheat areas (North, North-east and West). (Annex 1)

The missions fielded by MAIL started returning from the provinces in the beginning of May. They reported that the rainfed crops are going to fail everywhere and that a massive decrease in its yield compared to last year is unavoidable. Reports from the field suggest that the weather condition in May is also not so favorable for the standing crops. In fact, water stress in April/May caused rainfed crops to fail virtually everywhere in the country. Irrigated crops' yields were also adversely affected by insufficient water supply in some of the main wheat producing areas (north and north-east, in particular).

The results of the provincial reports/feedback and farmers' interviews confirm that a significantly lower level of cereal harvest will be reaped this year. The main factors that contributed unfavorably towards poor cereal production prospects in 2011 are:

- (i) insufficient rainfall in the beginning of the crop season and in April
- (ii) failure of rainfed crops

3. Crop Area and Production

3.1. Cereal Area, Production, Requirement and Deficit

Total area planted with cereals is estimated at 2.7 million HA. Overall cereal production in 2011 is estimated to be 25% below the last year's level and 17% below the average volume of 5.2 million MT (2005 to 2009).

Cereal production in 2011 is forecast to reach 4.3 million MT, which includes 3.3 million MT of wheat (77%) and barley 305,000 MT (7%). Paddy and maize will be cultivated later in the year. Milled rice and maize production forecasts for 2011 are 450,000 MT and 301,000 MT. (Table 1)

**Table 1: Forecasted Area and Production of different Cereals in 2011
(May, 2011 estimates)**

Crop	Area (‘000 HA)	Yield (MT/HA)	Production (‘000 MT)
Irrigated wheat (Winter & Spring)	1,150	2.54	2,917
Rainfed wheat (Winter & Spring)	1,000	0.34	339
All wheat	2,150	1.51	3,256
Rice	210	3.20	450
Maize	183	1.64	301
Barley	190	1.61	305
Overall	2,733		4,312

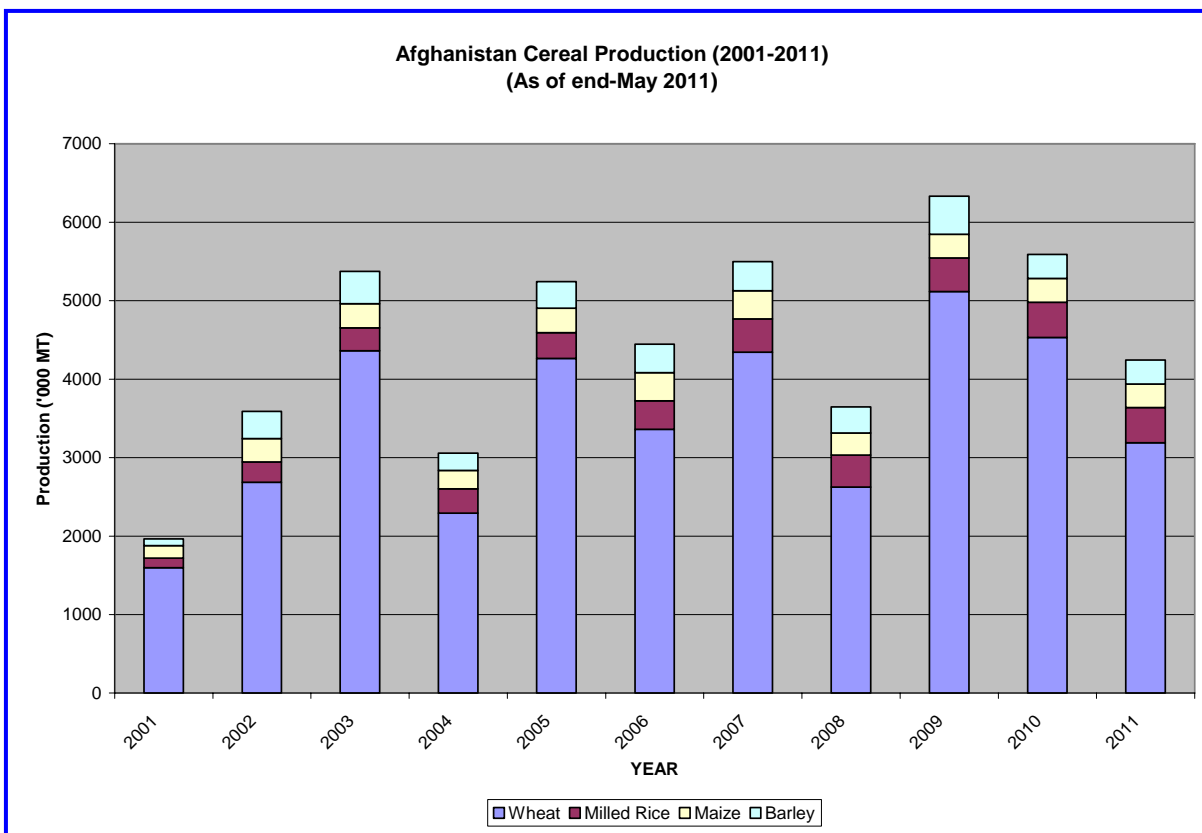
Compared with 2010, decreases in wheat area and yield are estimated at 14% and 17%. As a result of these decreases, domestic production of wheat in 2011 is expected to be 28% lower than in 2010. (Table 2)

Yield prospects of cereals planted in rainfed areas are highly unsatisfactory this year everywhere including the main growing areas (North, North-East and West). For example, the area planted with rainfed wheat is 26% lesser than last year and its production is expected to decrease by 77%. The area planted with irrigated wheat in 2011 is almost equal to the area planted in 2010. However, overall yield of wheat in irrigated areas was also slightly affected by lesser snow cover and lesser water flow in rivers.

Table 2: Changes in wheat area, yield and production in 2011 compared to 2010

Crop	2010			2011			% change in 2011 on 2010		
	Area	Yield	Prod	Area	Yield	Prod	Area	Yield	Prod
Irrigated wheat	1,151	2.68	3,082	1,150	2.54	2,917	--	-5	-5
Rainfed wheat	1,353	1.07	1,450	1,000	0.34	339	-26	-68	-77
All wheat	2,504	1.81	4,532	2,150	1.51	3,256	-14	-17	-28

Year to year changes in the volume of production of cereals in the recent years are shown in the Graph below. In 2002, 2004, 2006 and 2008 cereal production dipped considerably down due to drought, whilst 2003, 2005, 2007, 2009 and 2010 were years with very good cereal harvest mainly due to favorable weather conditions. This is the first time in recent years that the country is going to have poor cereal crop harvests in an odd year. This year's cereal production is broadly comparable with the production volumes of 2006 and 2008.



Total cereal requirement in MY 2011/12 is estimated at 6.3 million MT, which means that cereal shortfall in MY 2011/12 is going to be about 2 million MT². The shortfall includes 1.9 million MT of wheat and 66,000 MT of milled rice. (Table 3/Annex 5)

The share of the total cereal requirements are human consumption (78%), seed (6%), feed (6%) and loss (10%)³. The deficit in MY 2011/12 will have to be met through four main potential sources: commercial import, cereal stock held by the Government⁴, imported food aid, and uncovered deficit.

Table 3: Cereal Balance Sheet, MY 2011/12 ('000 MT)

Crop	Requirements					Domestic production	Surplus/Deficit
	Food	Seed	Feed	Loss	Total		
Irrigated wheat		209	--	438		2,917	
Rainfed wheat		119	--	51		339	
All wheat	4,346	328	--	489	5,163	3,256	-1,907
Rice	462	22	--	32	516	450	-66
Maize	54	11	191	45	301	301	--
Barley	27	30	202	46	305	305	--
Total	4,889	391	393	612	6,285	4,312	-1,973

² Cereal shortfall is estimated at 753,000 MT for MY 2010/11

³ Loss in Table 3 is expressed as % of requirement; it is expressed as % of production in Annex 5

⁴ At present the Government's wheat stock available for use in MY 2011/12 is 38,037 MT

3.2. Horticulture

Horticulture sub-sector continued rapid, highly profitable expansion of farm income. Overall production of fruits and vegetables at the national level is expected to be higher than that of last year. The areas planted with fruits and vegetables are estimated at 119,000 HA and 128,000 HA.

In **northern** provinces, production of fruits and vegetables is estimated to be marginally below last year. In Jawzjan province, grapes, almond, melon and water melon were adversely affected by the drought.

In **north-eastern** provinces the volume of production of fruit (plum, almond, apple, melon, water melon and grape) and vegetable is expected to be slightly above normal. Almond production is estimated to be 10-15% more than that of last year. Some grape vines have been affected due to storm. Melon, which is not yet ripe, is in good condition. Water melon is already harvested and is available in the market. Its production is more than the last year due to good marketing opportunities. In Baghlan, about 1,500 trees of apricot, mulberry and peaches suffered damages due to floods in Dushi, Khinjan and Andarab districts. In Kunduz, hailstorm inflicted 15% damage to the grapes grown in Khan Abad district. In Badakhshan, sunn pest and potato beetle damaged crops in Shahr-e-Buzurg, Wakhan, Argu, Tagab, Khwahan, Baharak, Kishm and the central districts.

Among the **western** provinces, production of fruits and vegetables in Herat is estimated to be 10% higher than that of last year. This is due to 3% increase in area and 7% increase in yield. Horticulture production in Badghis and Farah will be slightly lesser than that of last year due to adverse effect of hail storm, floods, aphid and Tent caterpillar. In Farah, *powdery mildew* has adversely affected vines in Bala Buluk and Kahshroad districts. Herat is the most important province in the west for horticulture production.

In the **west-central provinces** (Ghor and Bamyan), compared to last year, area planted with fruit is equal and there is no significant change in yield level also, although frost has reduced the production potential by 20% in some districts. Vegetable production is estimated to be 5% lesser due to prevalence of cut worms and other insects.

General situation of horticulture in the **central region** is good. There are no reported cases of problems from Kabul, Parwan, Panjsher and Kapisa. Rainfall followed by frost inflicted slight damages to apple and apricot in Chak-i-Wardak, Sayyidabad and Jalrez districts of Wardak.

General situation of horticulture in the **south-western region** is good. There are no reported cases of problems in Paktya, Paktika, Khost and Ghazni.

In the **eastern region**, new fruit gardens have been established with the support of agriculture entities working in the field of horticulture. Yield is going to be as high as last year and there is no reported case of adverse conditions. Area cultivated with vegetables has markedly increased in recent years because it generates higher income compared to other licit crops. Farmers who cultivated cucumber, tomato and onion made very healthy profit.

General situation of horticulture in the **south-western region** is very good. In Kandahar both area and production of vegetables are estimated to be more than that of last year. The main reason for this is market access. Kandahari vegetables always find good market because of their outstanding quality. Prospect of fruits is also very good. The reasons for this are good weather during flowering stage, availability of irrigation water, and easier market access for marketable surpluses. Similar situation

prevails in Helmand except for market access. The reason for an increase in vegetable area is availability of irrigation water. The reasons for higher production are good rainfall, availability of irrigation water and wider area coverage. However, there is a limited market access and opportunity for vegetables grown in Helmand, locally or otherwise. Melon fly damage to melon is reported to be above 10% in some areas. In Zabul production of fruits and vegetables is estimated to be at least 10% more than the last year. The reasons for higher volume of production are amount of rainfall received, availability of irrigation water, and favorable weather conditions during the flowering stage. In Nimruz, area planted with fruits is estimated to be above 10%. This year saw remarkable increase in area planted with fruits in Zarang and Khashrod districts, in particular. So far there are no sizable marketable surpluses mainly because fruits are primarily grown for family use. The situation is changing. Area under vegetables is significantly larger than that of last year although the yield is expected to be equal to that of last year. Melon fly and aphid are problems in vegetables. In Urozgan there is clear evidence of increase in area planted with vegetables and its production level is estimated to be higher than that of last year. The main reasons for this are availability of irrigation water and lesser incidence of aphid/insects. In Daikunde, drought and aphid have caused considerable damages to vineyards in Kejran, Khedir, Shahristan and the central districts.

4. Livestock

Livestock production system, which largely depends on grazing, will have profound and disproportionate impact this year. Firstly, rich pasture will be rarely available and competition for rangeland use will be intense. Secondly, wheat straw and chaff, which are the main sources of winter feed, will be significantly lesser than last year due to very low level of wheat production. Net far-reaching effect of these developments will be a serious lack of fodder and supplementary feeding (hay and straw) in this year's winter. Immediate measures are needed to mitigate this serious problem.

5. Support that has exerted strong impacts

The importance of the following factors in exerting profound impact on irrigated fields planted with wheat in 2010/11 cannot be over-emphasized:

- a) Distribution of 18,081 MT of improved wheat seed in 2010. This is up 40% from 12,948 MT in 2009 (Annex 2)
- b) Incremental area brought under irrigation (25,000 HA)⁵
- c) National Seed Distribution Program
 - Distribution of 19,000 MT of Certified Seed and 55,000 MT of DAP and Urea
 - Providing access to certified wheat seed to more than 380,000 farmers in 34 provinces
 - Contribution and coordination of donors (USAID, EU, FCO and the Government of Japan, among others) in the process
 - Involvement of more than 10 international organizations as the implementing partners
 - Creating more than 100,000 employment opportunities
 - Coordination among stakeholders and the Government in implementation and delivery
- d) Effective control of various pests and diseases (See Section 6)

As regards livestock, MAIL/FAO's initiatives in improving feed availability, fodder production, and distribution have benefited the farmers considerably. Integrated Dairy Schemes in Kunduz, Mazar, Herat, Kabul, and Nangharhar have brought tangible and lasting impacts by bringing improvements in

⁵ Source: Ministry of Energy and Water (Emergency Irrigation Rehabilitation Project funded by the World Bank)

animal feeding, breeding, health, housing and management. Above were possible because of the invaluable and generous grant assistance provided by the Governments of Germany, Italy and Japan. Much more needs to be done in these fields in other geographical areas.

6. Adverse Factors and their Control

6.1. Crop

The Plant Protection and Quarantine Department (PPQD) of MAIL distributed 52,844 kg/lit of different pesticides, 315 types of sprayers, 80 sets of safety clothes, 140 pruning scissors, 13,000 batteries, 38 motorcycles and 7 computers to DAILs' plant protection directorates. Accessories like nasals, water/fuel tanks, handles and switches have also been sent to provinces.

This year some 140,000 HA of crop areas needs to be protected against Moroccan locust. Currently, fight against locust is on stream in 19 provinces⁶. A total of 578 staff, 40 workers, 30 drivers, 30 vehicles from the provincial plant protection directorates, and 72 rented cars are involved in this venture.

Tent caterpillars will be combated in 16 provinces⁷, covering some 1,500,000 fruit-bearing trees. Similarly, efforts will be made to control melon fly in 13 provinces⁸ (40,000 HA), sunn-pest in 10 provinces⁹ (15,000 HA) and Colorado potato beetle in 6 provinces¹⁰ (5,000 HA).

Recently MAIL has launched a 3-year FAO project funded by the Government of Norway "Promoting Integrated Pest Management in Afghanistan". The project aims to boost production of wheat, rice, potato, and melon in Afghanistan by reducing pre-harvest pest attack by minimizing or avoiding chemical use and relying more on natural control using farmers' knowledge through Farmers Field Schools.

6.2. Livestock

The number of livestock that benefited from treatment and preventive measures taken by MAIL is shown below.

6 Baghlan, Kundoz, Takhar, Badakhshan, Samangan, Balkh, Jawzjan, Sar-e-pul, Faryab, Herat, Ghar, Parwan, Panjshir, Maidan Wardak, Logar, Farah, Laghman, Nangarhar and Kabul

7 Baghlan, Kundoz, Takhar, Badakhshan, Samangan, Balkh, Faryab, Parwan, Kapisa, Panjshir, Maidan Wardak, Ghazni, Bamyán, Laghman, Nooristan and Kabul

8 Baghlan, Kundoz, Takhar, Badakhshan, Samangan, Balkh, Jawzjan, Sar-e-pul, Faryab, Hirat, Helmand, Nimroz and Badghis

9 Samangan, Balkh, Jawzjan, Sar-e-pul, Faryab, Hirat, Ghor, Helmand, Badakhshan and Takhar

10 Baghlan, Kundoz, Takhar, Badakhshan, Samangan and Bamyán

Table 4: Number of Animals and Birds Treated by MAIL in 2010/11 (1389)

Type of animal/bird	Number Treated
Cow and buffalo	408,491
Goat	1,304,058
Sheep	1,318,790
Horse	112
Donkey and mule	375
Camel	26
Dog and cat	1,818
Poultry	1,418,328
Total	4,451,998

7. Way Forward

In early-February MAIL had observed that the 2011 weather events portend significantly reduced crop production in 2011 and stressed on:

- Larger volume of wheat import
- More food-based safety nets (e.g. more food aid than in 2008, for example)
- Larger Strategic Grain Reserve

The points mentioned above still remain valid. However, more important for sustainable food security is large-scale investment in agriculture aimed towards achieving higher level of crop and livestock production. Firstly, only large-scale investment in agriculture can provide sustainable food security, import substitution and income growth. Secondly, there has not been a real shortage of food in the country, not even in 2008 (recent worst drought year) or during the height of the severe global food price crisis. Lastly, in this crucial transitional phase, a trade-off between “main focus on providing food aid” and “sharper focus on (following) agricultural development endeavors” has become absolutely crucial:

- Agriculture inputs (seed and fertilizer) production and distribution
- Fodder production, feed availability and distribution
- Watershed and irrigation
- Integrated pest management

Farmers who use certified seed of improved varieties in irrigated fields can benefit significantly from greater volume of production and higher aggregate margin for their produce. Unfavorable weather developments generally have only modest effect on the crops grown in irrigated fields. Surveys in irrigated areas have shown that up to 33% incremented yield could be achieved by using “improved wheat varieties” in comparison with local varieties, whilst the use of “certified seed” could enhance yields further by 28%.

In MY 2011/12 MAIL aims to procure and distribute 30,000 MT certified wheat, 60,000 MT Urea and 30,000 MT DAP to be used by 600,000 farming families. Table 5 shows that the contract-growers are likely to harvest 36,000 MT of raw seed, which after cleaning should result into about 30,000 MT of processed certified seed.

Table 5: Estimated Yield of Wheat Seed in contract growers' field, 2011

Region	Contract grower inspected	Area (HA)		Production (MT)	Expected Yield (MT/HA)	% field-inspection completed
		Target	Inspected			
North	851	2,400	1,682	4,925	2.93	70
North-East	512	4,200	1,653	4,670	2.83	39
West	165	3,200	180	810	4.50	6
South	32	300	120	450	3.75	40
East	233	1,050	1,014	3,240	3.20	97
Central	51	1,000	51	207	4.06	5
All	1,844	12,150	4,700	14,302	3.04	39

Source: FAO Seed Project

As regards above, an FAO project to be implemented by MAIL and funded by the Government of Japan aims to procure and distribute 2,000 MT of certified wheat seed, together with 2,000 MT of DAP and 4,000 MT of urea for the benefit of 40,000 farming families in the north, east and south regions. More grant assistance from the donors is required for procurement and distribution of 28,000 MT of certified wheat seed, together with fertilizers required.

8. Remarks

The data presented in this report mirror the crop conditions up to the 3rd week of May. Bulk of irrigated wheat and barley harvest will have been reaped only by July. Rainfed crops, in particular, have substantial water requirements in the coming months too, when they will undergo grain filling, maturity and harvesting stages. Forecasts have been provided in the case of paddy and maize.

Annex 6A shows district codes and the following indicators and data that can be used for **targeting and interventions**:

- Number of households (district level)
- Settled population (province level)
- Poverty head count (%) (province level)
- Wheat production from rainfed fields in 2010 (province level)
- Wheat production from rainfed fields in 2011 (province level)
- % of population living in individual agro-ecological zone (district level)
 - a. All irrigated
 - b. More than ½ Irrigated
 - c. More than ½ rainfed
 - d. All rainfed
 - e. Grazing land only (Kuchi)
- % nomads living in individual agro-ecological zone (district level)
 - a. All irrigated
 - b. More than ½ Irrigated
 - c. More than ½ rainfed
 - d. All rainfed
 - e. Grazing land only (Kuchi)
- Livestock numbers (province level)
- Rangeland (HA) (province level)

Annex 6B, 6C and 6D contain area-specific information on the factors that have adverse effect on crops and livestock in 2011. Information on adverse effects of pests, diseases, floods, etc. on crops may change rapidly as they happen and/or as more facts become known. Hence, information presented in Annex 6B-6D is indicative only.

MAIL conducts annual probability sample surveys for bringing improvements in the reliability of wheat and paddy yield (MT/HA) data. These surveys are being undertaken now in 3 provinces of the eastern region. MAIL will conduct wheat yield sample surveys in additional 20 provinces¹¹. Paddy yield surveys will be undertaken in October in a number of main paddy growing provinces. Updated information and the results of the probability sample surveys will be provided in November. The production estimates of paddy and maize will also be updated then.

¹¹ Juzjan, Balkh, Samangan, Bughlan, Kunduz, Takhar, Herat, Farah, Badghis, Ghor, Bamyan, Kabul, Parwan, Panjser, Kapisa, Logar, Wardak, **Nangarhar**, **Laghman**, **Kunarba**, Kandahar, Helmand and Daikundi

Annex 1: Rainfall amount (mm) in the current crop growing cycle compared to the Long-Term Average (LTA)

Region	Province	Station	Nov	Dec	Jan	Feb	Mar	Apr	Nov 10	Dec 10	Jan 11	Feb 11	Mar 11	Apr 11	Rainfall amount compared to LTA (%)					
			LTA	LTA	LTA	LTA	LTA	LTA	Actual	Actual	Actual	Actual	Actual	Actual	Nov 10	Dec 10	Jan 11	Feb 11	Mar 11	Apr 11
North	Faryab	Maimana	28.0	35.0	47.9	55.8	83.9	65.0	78.0	56.0	20.5	45.0	67.5	27.0	279	160	43	81	80	42
North	Juzjan	Sheberghan	15.0	29.0	34.8	26.5	41.3	37.1	33.2	36.3	14.3	50.7	9.7	16.1	221	125	41	191	23	43
North	Sari Pul	Sari Pul	0.0	0.0	89.0	18.3	10.9	36.1	34.5	13.5	29.5	75.5	49.0	20.0	>100	>100	33	413	450	55
North	Balkh	Mazar	11.0	21.0	28.9	37.9	46.8	37.6	40.0	69.0	20.0	69.0	51.0	36.0	364	329	69	182	109	96
North East	Baghlan	Baghlan	24.0	23.0	41.3	41.8	84.1	75.2	54.6	39.3	23.8	41.0	54.8	43.0	228	171	58	98	65	57
North East	Kunduz	Kunduz	26.0	36.0	50.5	56.9	69.2	40.7	25.5	51.9	29.9	65.8	41.0	12.5	98	144	59	116	59	31
North East	Takhar	Taluqan	0.0	0.0	77.8	78.1	131.1	119.3	76.0	40.0	43.0	51.0	18.0	18.0	>100	>100	55	65	14	15
North East	Badakshan	Faiz Abad	29.0	32.0	45.5	63.0	98.2	99.2	67.5	51.5	67.0	74.0	64.0	103.0	233	161	147	117	65	104
West	Herat	Herat	9.0	9.0	49.6	39.0	49.9	33.6	3.0	35.6	29.0	133.0	45.0	21.0	33	396	58	341	90	63
West	Farah	Farah	3.0	3.0	22.2	24.8	25.3	10.1	1.5	23.5	2.5	58.0	1.0	15.5	50	783	11	234	4	153
Central	Kabul	Darul Aman	1.4	0.0	40.5	71.5	64.3	56.2	25.2	11.5	1.0	91.9	15.8	40.5	1,800	>100	2	129	25	72
Central	Kabul	Kabul	11.0	25.0	33.1	58.6	63.9	83.2	31.2	12.0	3.2	106.6	33.8	94.2	284	48	10	182	53	113
Central	Kabul	Kariz Mir	27.0	30.0	46.9	68.8	91.7	96.8	22.0	25.0	2.0	85.0	46.0	28.0	81	83	4	124	50	29
Central	Kabul	Paghman	43.0	52.0	62.1	68.5	80.9	83.1	55.0	23.0	4.0	113.0	28.0	61.0	128	44	6	165	35	73
Central	Kabul	Sarobi	15.0	29.0	44.4	54.9	46.5	55.1	16.0	5.0	7.3	61.5	49.0	13.5	107	17	16	112	105	25
Central	Parwan	Jabul Seraj	22.0	36.0	65.3	88.2	98.3	113.6	47.5	86.0	5.0	156.0	70.0	73.0	216	239	8	177	71	64
South	Paktya	Gardiz	11.0	11.0	40.4	70.8	65.9	74.2	16.0	15.0	9.5	113.0	36.0	80.0	145	136	24	160	55	108
South	Ghazni	Ghazni	11.0	11.0	37.9	36.4	42.4	47.4	16.0	6.5	0.0	42.0	2.5	56.0	145	59	0	115	6	118
East	Nangharhar	Ghazniabad	0.0	4.6	12.9	25.1	37.7	56.3	3.0	0.0	4.0	47.0	17.0	51.0	>100	0	31	187	45	91
East	Nangharhar	Jalalabad	8.0	16.0	17.3	24.8	63.2	33.0	0.0	0.0	3.0	11.5	29.5	12.0	0	0	17	46	47	36
South West	Kandahar	Kandahar	6.0	6.0	49.1	35.1	26.3	13.6	0.0	73.5	5.5	93.0	48.0	11.5	0	1,225	11	265	183	85

Sources:

MAIL/USGS Project

Annex 2: Wheat Seed Produced by the FAO Seed Project (2003-2010)

SN	Variety	Breeder Seed (tonnes)									Foundation Seed (tonnes)									Registered Seed		Certified Seed (tonnes)										
		2003	2004	2005	2006	2007	2008	2009	2010	Total	2003	2004	2005	2006	2007	2008	2009	2010	Total	2010	Total	2003	2004	2005	2006	2007	2008	2009	2010	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	--	--	173	80	--	1,416		
2	Herat-99	0.775	3.409	1.500	1.775	3.525	6.607	8.301	9.000	34.892	18.00	64.00	35.50	14.65	14.76	54.33	210.05	122.80	534.09	336.24	336.24	322	1,175	978	450	358	445	570	3,582	7,880		
3	Balkh-66	0.200	--	--	0.315	--	--	--	--	0.515	4.50	--	--	2.40	9.07	--	--	--	15.97	--	--	81	3	--	60	9	12	--	165			
4	Mazar 99	1.850	--	0.748	1.200	1.514	3.492	7.278	9.134	25.216	44.00	--	17.00	31.05	26.03	33.71	156.01	75.65	383.45	210.22	210.22	790	5	533	942	815	1,321	984	1,261	6,651		
5	Gul 96	1.825	0.118	0.783	0.590	0.430	6.452	5.395	6.172	21.765	42.50	4.00	19.00	17.56	14.14	2.91	171.74	34.00	305.85	206.82	206.82	782	83	575	1,150	193	348	300	2,455	5,886		
6	Ghori-96	0.800	--	0.850	0.540	0.554	11.743	8.205	9.575	32.267	18.50	--	18.99	39.06	6.59	9.02	122.35	79.00	293.50	232.20	232.20	330	3	580	733	1,017	1,033	1,167	1,496	6,359		
7	Lalmi-1	2.000	--	0.950	0.340	1.700	--	--	--	4.990	4.50	--	20.00	6.40	2.68	10.43	--	--	44.01	--	--	81	5	605	620	128	235	200	--	1,874		
8	Lalmi-2	0.900	0.378	0.753	0.797	1.035	4.631	5.900	4.571	18.965	47.00	11.00	18.50	48.64	21.20	23.39	111.79	21.25	302.77	181.52	181.52	847	238	569	1,279	767	881	955	1,379	6,915		
9	Lalmi-3	1.500	0.370	0.450	1.114	3.500	6.160	4.718	3.600	21.412	20.00	11.00	8.40	20.25	33.67	40.62	100.15	35.70	269.79	23.18	23.18	358	235	326	504	242	460	882	2,254	5,261		
10	Diyama-96	0.200	2.193	0.318	0.646	1.958	0.350	0.890	--	6.555	35.00	--	8.80	20.88	12.70	29.25	2.56	--	109.19	--	--	629	8	336	521	236	154	100	13	1,997		
11	Sn'b	--	--	0.308	0.348	0.730	1.405	1.521	1.665	5.977	4.50	--	7.00	8.05	5.38	9.18	33.41	9.35	76.86	22.78	22.78	81	--	293	503	13	42	160	505	1,597		
12	Cham-6	--	0.050	0.371	0.221	0.880	0.485	--	--	2.007	4.00	--	8.00	27.05	6.61	4.80	--	--	50.45	--	--	119	--	317	--	210	99	123	--	868		
13	Rona-96	--	--	0.200	0.857	2.721	0.536	--	--	4.314	--	--	4.80	5.40	14.73	33.64	--	10.00	68.57	--	--	--	--	--	240	--	85	423	453	--	1,201	
14	Pamir-94	0.800	--	0.900	0.747	0.733	2.645	0.691	0.250	6.766	18.50	--	18.20	7.05	19.31	11.45	31.76	1.50	107.77	7.00	7.00	318	3	617	194	145	490	640	477	2,884		
15	Roshan-96	1.950	1.832	0.600	0.389	0.260	3.340	3.109	--	11.480	44.00	39.00	14.50	13.30	7.75	0.69	--	--	119.24	--	--	736	880	473	178	309	1,505	881	--	4,962		
16	Anu-99	1.350	1.413	0.428	0.848	0.587	3.635	3.764	--	12.025	30.50	29.00	9.50	26.95	12.30	10.82	106.70	--	225.77	--	--	514	666	357	689	1,474	1,429	402	11	5,542		
17	Parva-2	0.400	--	0.200	0.950	2.782	1.618	2.240	2.283	10.473	9.50	--	34.00	32.87	15.82	26.39	18.80	12.75	150.13	--	--	159	3	245	851	289	311	376	422	2,656		
18	Solh-2	0.600	0.315	0.983	0.569	0.202	2.915	4.961	6.529	17.074	14.00	9.00	24.00	15.97	14.41	27.49	43.30	29.75	177.92	67.30	67.30	236	200	701	--	285	584	470	571	3,047		
19	PBW-154	0.800	0.180	0.988	1.692	11.470	10.000	8.657	11.288	45.075	18.00	5.00	23.00	38.53	35.50	134.00	234.48	51.85	540.36	388.15	388.15	303	100	677	--	534	1,017	2,734	3,490	8,855		
20	HUW-234	--	--	0.368	0.348	--	--	--	--	0.716	--	--	8.00	1.00	11.70	--	--	--	20.70	--	--	--	--	--	317	--	16	105	--	--	438	
21	HD-2285	--	--	0.130	0.320	4.500	0.648	1.579	--	7.177	--	--	3.50	1.00	6.78	65.84	34.40	--	111.52	--	--	--	--	--	119	27	42	411	1,432	--	2,031	
22	Bakhtawar-92	0.550	3.002	1.263	1.799	0.790	3.940	4.424	2.355	18.123	12.00	65.00	22.85	16.61	33.00	--	42.50	30.00	221.96	--	--	200	1,428	668	426	339	455	19	165	3,700		
23	Mayson	--	--	--	0.242	--	--	--	--	0.242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24	Kouz/AA/Kouz	--	--	--	0.350	--	--	--	--	0.350	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
25	FDLu/NG8695	--	--	--	0.225	--	--	--	--	0.225	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
26	Pastor	--	--	0.728	0.600	0.160	--	--	--	1.488	--	--	--	--	6.00	--	--	--	6.00	--	--	--	--	--	--	--	--	65	--	--	65	
27	Ghazna-97	0.250	--	--	--	0.170	--	--	--	0.420	--	--	--	5.33	--	3.10	--	--	8.43	--	--	--	--	--	--	--	145	10	11	20	186	
28	/4/Clif	--	--	--	0.150	--	--	--	--	0.150	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
29	UREs/PRC	--	--	0.130	0.224	--	--	--	--	0.354	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
30	IRENA/Weave	--	--	0.230	--	--	--	1.900	2.480	4.610	--	--	--	--	3.01	--	--	--	3.01	13.00	13.00	--	--	--	--	--	--	25	--	--	25	
31	WEBBLL-1	--	--	0.130	0.200	--	--	--	--	0.330	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
32	Takhar-96	0.150	--	--	--	--	--	--	--	0.150	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	111	--	--	--	--	115	
33	Darullaman-07	--	--	--	--	--	--	--	0.806	0.806	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
34	Ariana-07	--	--	--	--	--	--	--	1.584	1.584	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
35	Dorkshah-08	--	--	--	--	--	--	8.487	8.573	17.060	--	--	--	--	--	--	--	120.50	120.50	0.70	0.70	--	--	--	--	--	--	--	--	--	--	
36	Shesham Bagh	--	--	--	--	--	--	4.980	5.819	10.799	--	--	--	--	--	--	--	69.30	69.30	0.40	0.40	4	--	--	111	--	--	--	--	--	115	
37	Moqawem-09	--	--	--	--	--	--	--	11.820	11.820	--	--	--	--	--	--	--	--	--	13.80	13.80	--	--	--	--	--	--	--	--	--	--	
38	Kushan-09	--	--	--	--	--	--	--	6.728	6.728	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total		17.000	15.700	14.650	18.800	40.201	70.602	87.000	104.232	368.185	391.000	281.000	332.000	400.000	344.000	531.050	1,420.000	703.400	4,402.450	1,703.310	1,703.310	6,929	5,835	9,854	9,494	7,516	12,034	12,948	18,081	82,691		

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

Annex 3: Area and Production of Wheat in 2011 by province (End-May 2011 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	214	1.70	364	544	0.26	141	758	0.67	505
Faryab	33	1.91	63	165	0.25	41	198	0.53	104
Juzjan	37	2.14	79	79	0.67	53	116	1.14	132
Sar-i-Pul	31	1.52	47	74	0.00	0	105	0.45	47
Balkh	100	1.58	158	102	0.00	0	202	0.78	158
Samangan	13	1.32	17	124	0.38	47	137	0.47	64
NORTH-EAST	220	2.70	595	228	0.39	90	448	1.53	685
Bughlan	59	2.42	143	47	0.40	19	106	1.53	162
Kunduz	86	2.52	217	24	0.18	4	110	2.01	221
Takhar	51	3.62	185	88	0.39	34	139	1.58	219
Badakhshan	24	2.07	50	69	0.48	33	93	0.89	83
WEST	133	2.14	285	154	0.47	73	287	1.25	358
Herat	92	2.16	199	79	0.56	44	171	1.42	243
Farah	18	2.16	39	0	0.00	0	18	2.17	39
Badghis	23	2.03	47	75	0.39	29	98	0.78	76
WEST-CENTRAL	38	2.47	94	28	0.57	16	66	1.67	110
Ghor	26	2.65	69	23	0.57	13	49	1.67	82
Bamyan	12	2.08	25	5	0.53	3	17	1.65	28
CENTRAL	125	3.34	417	16	0.56	9	141	3.02	426
Kabul	22	2.93	64	0	0.52	0	22	2.91	64
Parwan	30	4.19	126	5	0.48	2	35	3.66	128
Panjsher	7	3.26	23	2	0.52	1	9	2.67	24
Kapisa	15	3.44	52	1	0.43	0	16	3.25	52
Logar	27	2.53	68	3	0.77	2	30	2.33	70
Wardak	24	3.51	84	5	0.84	4	29	3.03	88
SOUTH	110	2.97	327	12	0.25	3	122	2.70	330
Paktya	20	2.60	52	1	0.37	0	21	2.48	52
Paktika	16	4.34	69	6	0.37	2	22	3.23	71
Khost	16	3.88	62	1	0.35	0	17	3.65	62
Ghazni	58	2.49	144	4	0.37	1	62	2.34	145
EAST	115	2.98	343	4	0.25	1	119	2.89	344
Nangarhar	79	2.87	227	0	0.00	0	79	2.87	227
Laghman	15	3.85	58	0	0.00	0	15	3.87	58
Kunarha	15	3.07	46	3	0.26	1	18	2.61	47
Nooristan	6	1.93	12	1	0.26	0	7	1.71	12
SOUTH-WEST	195	2.52	492	14	0.43	6	209	2.38	498
Kandahar	40	2.96	118	1	0.11	0	41	2.88	118
Helmand	85	2.61	222	0	0.00	0	85	2.61	222
Zabul	18	2.43	44	5	0.54	3	23	2.04	47
Nimroz	17	1.52	26	1	0.18	0	18	1.44	26
Uruzgan	25	2.42	61	2	0.27	1	27	2.30	62
Daikunde	10	2.14	21	5	0.30	2	15	1.53	23
TOTAL	1,150	2.54	2,917	1,000	0.34	339	2,150	1.51	3,256

Annex 4: Wheat Balance in 2011 by Province

REGION/ Province	Settled population in 2011 (^{'000} no.)	Irrigated wheat area forecast 2012 harvest (^{'000} ha.)	Rainfed wheat area forecast 2012 harvest (^{'000} ha.)	Production 2011 (^{'000} tons)	Requirement 2011			Shortfall 2011 (^{'000} tons)
					Human consumption (^{'000} tons)	Seed (^{'000} tons)	Post harvest Losses (^{'000} tons)	
NORTH	3,539.5	226	705	505	566.4	98.0	75.8	-235.2
Faryab	931.8	44	190	104	149.1	23.5	15.6	-84.2
Juzjan	503.1	52	110	132	80.5	18.2	19.8	13.5
Sar-i-Pul	522.9	27	120	47	83.7	14.7	7.1	-58.5
Balkh	1,219.2	89	155	158	195.1	28.4	23.7	-89.2
Samangan	362.5	14	130	64	58.0	13.2	9.6	-16.8
NORTH-EAST	3,591.5	224	370	685	574.7	69.9	102.9	-62.5
Bughlan	848.5	57	80	162	135.8	16.6	24.3	-14.7
Kunduz	935.6	91	34	221	149.7	18.7	33.2	19.4
Takhar	917.7	50	140	219	146.8	20.4	32.9	18.9
Badakhshan	889.7	26	116	83	142.4	14.2	12.5	-86.1
WEST	2,683.1	152	240	358	429.4	46.5	53.8	-171.7
Herat	1,744.7	95	135	243	279.2	27.8	36.5	-100.5
Farah	474.3	31	0	39	75.9	5.4	5.9	-48.2
Badghis	464.1	26	105	76	74.3	13.3	11.4	-23.0
WEST-CENTRAL	1,064.8	40	54	110	170.4	11.5	16.5	-88.4
Ghor	646.3	25	44	82	103.4	8.0	12.3	-41.7
Bamyan	418.5	15	10	28	67.0	3.5	4.2	-46.7
CENTRAL	5,921.7	128	19	426	947.4	24.0	63.9	-609.3
Kabul	3,818.7	23	1	64	611.0	4.1	9.6	-560.7
Parwan	620.9	30	5	128	99.3	5.7	19.2	3.8
Panjsher	143.7	7	2	24	23.0	1.4	3.6	-4.0
Kapisa	413.0	15	1	52	66.1	2.7	7.8	-24.6
Logar	367.0	27	5	70	58.7	5.1	10.5	-4.3
Wardak	558.4	26	5	88	89.3	5.0	13.2	-19.5
SOUTH	2,610.6	114	12	330	417.6	20.9	49.6	-158.1
Paktya	516.3	22	1	52	82.6	3.9	7.8	-42.3
Paktika	407.1	16	6	71	65.1	3.3	10.7	-8.1
Khost	537.8	16	1	62	86.0	2.9	9.3	-36.2
Ghazni	1,149.4	60	4	145	183.9	10.8	21.8	-71.5
EAST	2,387.1	115	11	344	382.0	21.0	51.7	-110.7
Nangarhar	1,409.6	79	7	227	225.5	14.4	34.1	-47.0
Laghman	417.2	15	1	58	66.8	2.7	8.7	-20.2
Kunarha	421.7	15	2	47	67.5	2.8	7.1	-30.4
Nooristan	138.6	6	1	12	22.2	1.1	1.8	-13.1
SOUTH-WEST	3,189.4	197	15	498	510.2	35.8	74.8	-122.8
Kandahar	1,127.0	40	1	118	180.3	7.1	17.7	-87.1
Helmand	864.6	85	0	222	138.3	14.9	33.3	35.5
Zabul	284.6	18	1	47	45.5	3.2	7.1	-8.8
Nimroz	153.9	17	1	26	24.6	3.1	3.9	-5.6
Uruzgan	328.0	27	2	62	52.5	4.9	9.3	-4.7
Daikunde	431.3	10	10	23	69.0	2.6	3.5	-52.1
Sub-total for settled	24,987.7	1,196	1,426	3,256	3,998.1	327.6	489.0	-1,558.7
Sub-total Nomads	1,726.6	0	0	0	276.3	--	--	-276.3
Sub-total returnees	450.0	0	0	0	72.0	--	--	-72.0
Total all consumers	27,164.3	1,196	1,426	3,256.0	4,346.4	327.6	489.0	-1,907.0

Sources:

Settled population in 2011: Central Statistics Organization

Nomads in 2011: Projected by using CSO's annual population growth-rate of 2.03%

Needy returnees in 2011: Estimated on the basis of past UNHCR/CSO data

All other data: MAIL

Annex 5: Production and Requirements of cereals in 2011
(End-May 2011 Estimates)

Crop	Consumption units (‘000 no.)	Area to be planted (‘000 ha)	Seed-rate (kg/ha)	Required for human consumption (kg/person)	Required for				Total required (‘000 t)	Total production (‘000 t)	Surplus/Deficit (‘000 t)
					Food (‘000 t)	Seed (‘000 t)	Feed (‘000 t)	Loss (‘000 t)			
					(1)	(2)	(3)	(4)			
Irrigated wheat	27,164.3 (See Annex 3)	1,196	175			209	--	438		2,917	
Rainfed wheat		1,426	83			119	--	51		339	
All wheat		2,622	126	160	4,346	328	0	489	5,163	3,256	-1,907
Milled rice		210	105	17	462	22	0	32	516	450	-66
Maize		180	60	2	54	11	191	45	301	301	0
Barley		270	110	1	27	30	202	46	305	305	0
All cereals		3,282		180	4,889	391	393	612	6,285	4,312	-1,973

Extraction-rate from paddy to rice: 67%

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

Annex 6B: Adverse Conditions of Crops
(See Annex 6A for the names of the districts)

Region	Province	Crop	Adverse Condition	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15
North	FARYAB	Rainfed Wheat	Drought															
North	FARYAB	Irrigated Wheat	Drought															
North	FARYAB	Irrigated Wheat	Frost															
North	JAWZJAN	Rainfed Wheat	Drought															
North	JAWZJAN	Irrigated Wheat	Drought	5	1	4												
North	SAR-I- PUL	Rainfed Wheat	Drought	7	1	2	6	3										
North	SAR-I- PUL	Rainfed Wheat	Drought	8	9													
North	SAR-I- PUL	Rainfed Wheat	Drought															
North	BALKH	Rainfed Wheat	Drought															
North-East	SAMANGAN	Irrigated Wheat	Drought	1	2	3	4	5	6	7								
North-East	SAMANGAN	Rainfed Wheat	Drought	1	2	3	4	5	6	7								
North-East	BAGHLAN	Rainfed Wheat	Drought															
North-East	KUNDUZ	Rainfed Wheat	Drought	1	2	3	4	5	6	7								
North-East	TAKHAR	Rainfed Wheat	Drought															
North-East	TAKHAR	Irrigated Wheat	Locust	14	13	16	11	4	12	3								
North-East	BADAKHSHAN	Irrigated Wheat	Drought	23	26	27	28											
North-East	BADAKHSHAN	Rainfed Wheat	Drought	23	26	27	28	24	25									
West	HERAT	Rainfed Wheat	Drought															
West	FARAH	Irrigated Wheat	Flood	4	5	6	7											
West	BADGHIS	Rainfed Wheat	Drought															
West	BADGHIS	Irrigated Wheat	Flood	2														
West-Central	GHOR	Rainfed Wheat	Drought															
West-Central	BAMYAN	Rainfed Wheat	Drought															
West-Central	BAMYAN	Rainfed Wheat	Drought	1	6													
Central	PARWAN	Rainfed Wheat	Drought															
Central	PANJSHER	Rainfed Wheat	Drought															
Central	KAPISA	Irrigated Wheat	Frost	3	2	1	4											
Central	LOGAR	Rainfed Wheat	Drought															
Central	WARDAK	Rainfed Wheat	Drought															
Southern	PAKTIKA	Rainfed Wheat	Drought															
Southern	GHAZNI	Rainfed Wheat	Drought															
Eastern	LAGHMAN	Irrigated Wheat	Rust															

Annex 6B: Adverse Conditions of Crops
(See Annex 6A for the names of the districts)

Region	Province	Crop	Adverse Condition	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15
Eastern	KUNARHA	Rainfed Wheat	Drought	5	6													
South-West	HELMAND	Irrigated Wheat	Rust	1	2	3	4	6										
South-West	HELMAND	Irrigated Wheat	Smut	1	2	3	4	6										
South-West	HELMAND	Irrigated Wheat	Sunn pest	1	2	3	4	6										
South-West	ZABUL	Irrigated Wheat	Drought	1	2	3	4	5	6	7	8	9						
South-West	ZABUL	Irrigated Wheat	Drought	1	2	3	4	5	6	7	8	9						
South-West	ZABUL	Rainfed Wheat	Drought															
South-West	ZABUL	Irrigated Wheat	Flood	1	2	3	4	5	6	7	8	9						
South-West	ZABUL	Irrigated Wheat	Flood	1	2	3	4	5	6	7	8	9						
South-West	ZABUL	Irrigated Wheat	Rust	3	4	5	6	7	8									
South-West	ZABUL	Irrigated Wheat	Rust	3	4	5	6	7	8									
South-West	ZABUL	Irrigated Wheat	Smut	4	5	6	7	8	9									
South-West	ZABUL	Irrigated Wheat	Smut	4	5	6	7	8	9									
South-West	NIMROZ	Irrigated Wheat	Sunn pest	1	2	3	4											
South-West	UROZGAN	Irrigated Wheat	Drought	1	2	3	4	5										
South-West	UROZGAN	Rainfed Wheat	Drought															
South-West	UROZGAN	Irrigated Wheat	Frost	1	2	3	4	5										
South-West	UROZGAN	Irrigated Wheat	Rust	1	2	3	4	5										
South-West	UROZGAN	Irrigated Wheat	Smut	1	2	3	4	5										
South-West	UROZGAN	Irrigated Wheat	Sunn pest	1	2	3	4	5										
South-West	DAYKUNDI	Rainfed Wheat	Drought															

Annex 6C: Adverse Conditions of Other Crops

(See Annex 6A for the names of the districts)

Region	Province	Crop	Adverse Condition	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
West	FARAH	Melon	Flood	4	5									
West	FARAH	Water Melon	Flood	4	5									
West	FARAH	Grapes	Flood	4	5									
Central	KAPISA	Walnut	Frost	4										
Eastern	LAGHMAN	Grapes	Other	1	2	3	4	5						
South-West	HELMAND	Melon	Melon Fly	12	3	4	6							
South-West	ZABUL	Melon	Melon Fly	2	3	4	5							
South-West	ZABUL	Grapes	Flood	2	3	4								

Annex 6D: Adverse Conditions of Livestock

(See Annex 6A for the names of the districts)

Region	Province	Animal	Adverse Condition	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16
North	FARYAB	Goat	Sheep pox	7	8	6	2												
North	FARYAB	Sheep	Sheep pox	7	8	6	2												
North	FARYAB	Cattle	FMD	1	5	3	10	14											
North	JAWZJAN	Sheep	PPR	8															
North	JAWZJAN	Cattle	FMD	8	9	5	1	2											
North	SAR-I- PUL	Poultry	Newcastle	1	7	3													
North	SAR-I- PUL	Sheep	Lack of vaccines	4	5	6													
North	SAR-I- PUL	Cattle	Enterotoxaemia	1	5	7	3	4											
North-East	KUNDUZ	Cattle	FMD	1	2	3	4	5	6										
North-East	KUNDUZ	Poultry	Newcastle	1	2	3	4	5	6										
North-East	KUNDUZ	Sheep	Anthrax	1	2	3	4	5	6										
North-East	TAKHAR	Cattle	FMD																
North-East	TAKHAR	Poultry	Newcastle																
North-East	BADAKHSHAN	Poultry	Newcastle																
North-East	BADAKHSHAN	Cattle	FMD	3	13	8	4	2	1										
North-East	BADAKHSHAN	Poultry	Lack of vaccines																
West	HERAT	Poultry	Newcastle	1	3	2	5	4	12										
West	HERAT	Sheep	Sheep pox	2	6	5													
West	HERAT	Goat	Sheep pox	11	5														
West	HERAT	Cattle	FMD	1	2	3													
West	FARAH	Cattle	Enterotoxaemia																
West	FARAH	Goat	Anthrax																
West	FARAH	Sheep	Sheep pox																
West	FARAH	Cattle	FMD																
West	FARAH	Poultry	Newcastle																
West	BADGHIS	Sheep	Anthrax	2	3	7													
West	BADGHIS	Goat	Anthrax	2	3	7													
West	BADGHIS	Sheep	Sheep pox	3	7														
West	BADGHIS	Cattle	Enterotoxaemia	1	3	2	7												
West	BADGHIS	Sheep	Enterotoxaemia	3	1	2	4	5	7										
West	BADGHIS	Cattle	FMD	3	2	1	5												
West-Central	GHOR	Goat	FMD																

Annex 6D: Adverse Conditions of Livestock

(See Annex 6A for the names of the districts)

Region	Province	Animal	Adverse Condition	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16
West-Central	GHOR	Cattle	FMD																
West-Central	GHOR	Sheep	FMD																
Central	PANJSHER	Cattle	FMD	7	4	3	1	5	2										
Central	LOGAR	Sheep	PPR	1	5	2	4												
Central	LOGAR	Cattle	Black leg	1	5	2													
Central	LOGAR	Cattle	FMD	5	2	1	4	6	7										
Central	LOGAR	Poultry	Newcastle	1	5	2													
Southern	PAKTYA	Sheep	Sheep pox	1	10	9													
Southern	PAKTYA	Cattle	FMD	1	8	9	10												
Southern	PAKTYA	Goat	Sheep pox	1	10	9													
Southern	PAKTYA	Cattle	Black leg	1	10	6	9												
Southern	PAKTYA	Sheep	PPR	1	6	2	10	6	8										
Southern	PAKTIKA	Poultry	Lack of feed	1															
Southern	PAKTIKA	Cattle	Lack of feed																
Southern	PAKTIKA	Sheep	Lack of feed	1															
Southern	PAKTIKA	Goat	Lack of feed	1															
Southern	PAKTIKA	Cattle	FMD	1	3	5	6	9											
Southern	PAKTIKA	Cattle	Enterotoxaemia	2	3	4	7												
Southern	KHOST	Cattle	FMD	1	9	8	13	12	5										
Southern	KHOST	Sheep	Sheep pox	11	12	13	5	4	6										
Southern	KHOST	Goat	Sheep pox	11	12	13	5	4	6										
Southern	KHOST	Poultry	Newcastle	1	13	12	2	3											
Southern	KHOST	Cattle	Anthrax	9	12	13													
Southern	GHAZNI	Goat	Anthrax	11	10	1	9												
Southern	GHAZNI	Cattle	FMD	12	8	10	1	9											
Southern	GHAZNI	Sheep	Enterotoxaemia	9	7	3													
Southern	GHAZNI	Sheep	Sheep pox	1	12	10	8	9	7										
Southern	GHAZNI	Sheep	Anthrax	11	10	1	9												
Southern	GHAZNI	Sheep	FMD	10	8	1	7												
Eastern	LAGHMAN	Cattle	FMD	1	2	3	4	5											
Eastern	NOORISTAN	Poultry	Newcastle	8	7	5													
Eastern	NOORISTAN	Goat	Sheep pox	4															

Annex 6D: Adverse Conditions of Livestock

(See Annex 6A for the names of the districts)

Region	Province	Animal	Adverse Condition	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16
Eastern	NOORISTAN	Cattle	FMD	1															
South-West	KANDAHAR	Sheep	Lack of vaccines	1	2	4	6	7	11										
South-West	KANDAHAR	Cattle	Lack of fodder	1	2	4	7	11											
South-West	KANDAHAR	Sheep	Lack of feed	1	2	4	7	11											
South-West	HELMAND	Cattle	FMD	1	2	3	4	6											
South-West	HELMAND	Goat	Sheep pox	1	2	3	4	6											
South-West	HELMAND	Sheep	Sheep pox	1	2	3	4	6											
South-West	ZABUL	Goat	Lack of fodder																
South-West	ZABUL	Poultry	Lack of market																
South-West	ZABUL	Cattle	FMD	2	5	6	7	8											
South-West	ZABUL	Poultry	Lack of vaccines																
South-West	ZABUL	Cattle	Lack of feed																
South-West	ZABUL	Sheep	Sheep pox	7	8	9	11												
South-West	NIMROZ	Goat	FMD	1	2	3	4	5											
South-West	NIMROZ	Cattle	Black leg	1	2	3	4	5											
South-West	NIMROZ	Cattle	FMD	1	2	3	4	5											
South-West	NIMROZ	Cattle	Lack of vaccines	1	2	3	4	5											
South-West	NIMROZ	Sheep	FMD	1	2	3	4	5											
South-West	NIMROZ	Sheep	Lack of vaccines	1	2	3	4	5											

