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وزارت زراعت ، آبیاری و مالدارۍ

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*Ministry of Agriculture, Irrigation and Livestock*

دافغانستان اسلامي جمهوریت  
جمهوری اسلامی افغانستان



## ***AGRICULTURE PROSPECTS REPORT***



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

*Kabul, 8 July 2012*

## **Abbreviations**

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
FFS	Farmer Field School
FMD	Foot and Mouth Disease
GDPP	General Directorate of Planning and Policy, MAIL
IPM	Integrated Pest Management
MAIL	Ministry of Agriculture, Irrigation and Livestock
MY	Marketing Year (1 July through 30 June)
NDVI	Normalized Difference Vegetation Index
NRVA	National Risk and Vulnerability Assessment
PPR	<i>peste des petits ruminants</i>
RFA	Regional Field Assistant (of FAO)
USGS	United States Geological Survey
WFP	World Food Program

## **Acknowledgement**

Primary sources of information for this report are 34 DAILs and over 7,850 farmers across 34 provinces. Very many thanks are due to farmers, projects, agencies and individuals for their help. Thanks are also due to many others who contributed towards field work and/or helped with the writing of this report.

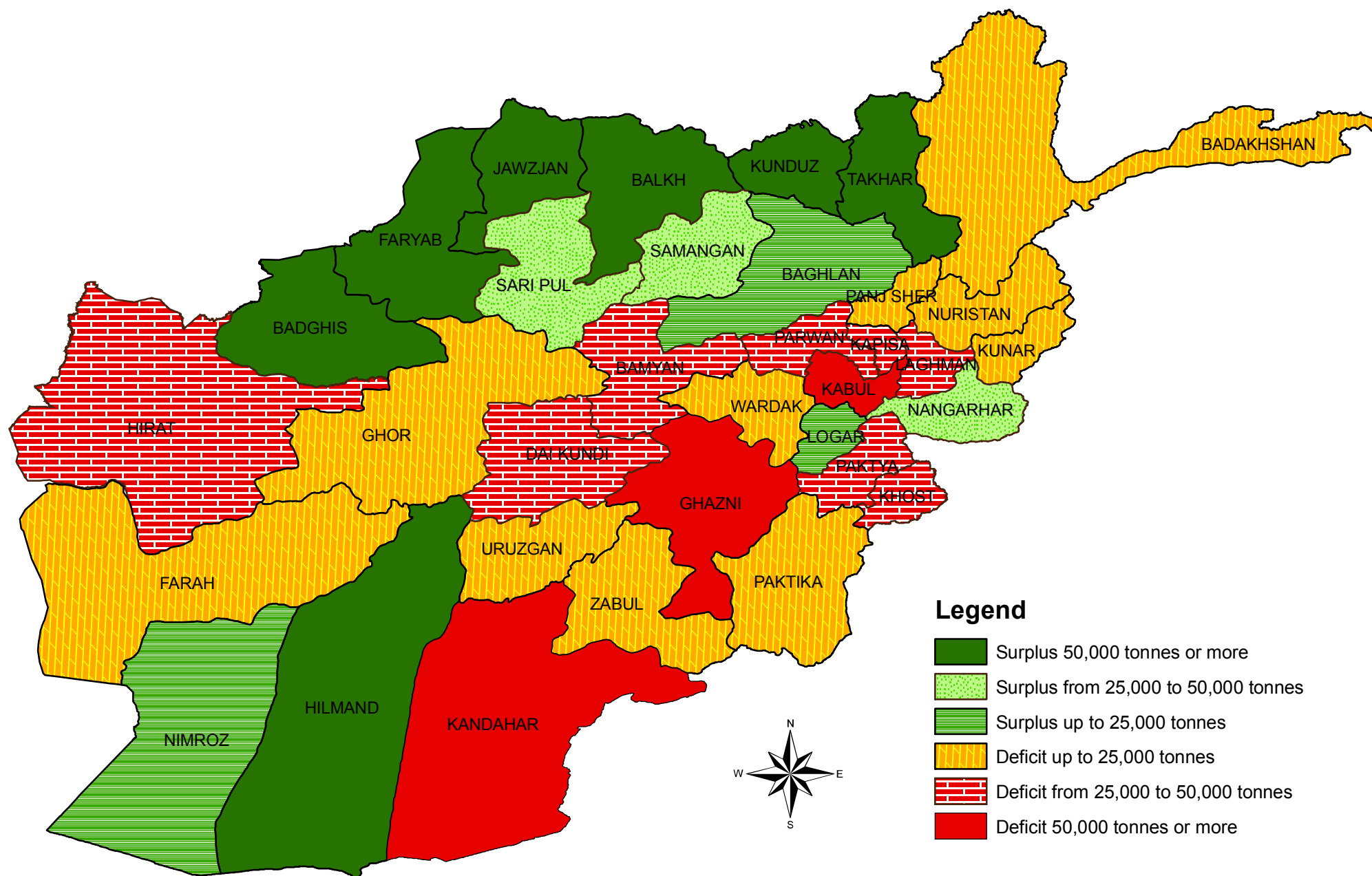
The APR for 2012 was ready for the internal use of MAIL by the 3<sup>rd</sup> of June. The main findings of the report were presented by GDPP on the 13<sup>th</sup> of June at a meeting chaired by His Excellency the Minister of MAIL and attended by Heads of General Directorates and National Managers of various projects in MAIL. In accordance with the directives given by HE, further inputs were provided by the individual directorates of MAIL. The contents of the second version of the APR were discussed further in an ad-hoc meeting held at GDPP on the 24<sup>th</sup> of June. Additional inputs were received from the attendees of June, 24<sup>th</sup> meeting by June, 26<sup>th</sup> and the updated APR was deemed ready for public delivery at the Technical Advisory Team (TAT) Meeting of July, 7<sup>th</sup> chaired by HE the Minister. MAIL appreciates contributions made by all involved in the extensive consultation process described above.

## **Cover photo**

***Perfectly healthy improved irrigated wheat (PBW-154) in Mashakzi Village of Dand District in Kandahar (Photo taken by Mohammad Yousuf Sadiq on May, 17<sup>th</sup>)***

*EU-funded project of FAO (DCI-FOOD/2008/020-138/228-825; GCP/AFG/063/EC) provided technical guidance for the conduct of the 2012 agriculture assessment and the production of this report.*

# Wheat Balance in MY 2012



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## **EXECUTIVE SUMMARY**

### **Agriculture in Afghanistan**

Agriculture sector in Afghanistan contributed 28% to the Gross Domestic Product (GDP) at 2010/11 market price<sup>1</sup>. The sector's share in overall employment is 59%.<sup>2</sup> The total value of licit export from Afghanistan was US\$388.5 million in 2010/11.<sup>3</sup> The major export items were carpets and rugs (40% of the total value of the licit export), dried fruits (27%), medicinal plants (10%), wool (8%), fresh fruits (7%), skin (4%) and other items (4%). Hence, the importance of agriculture sector in the national economy and the export earnings is obvious.

Overall performance of agriculture in Afghanistan is very much dependent on cereal production, which accounted for over three-fourth (77%) of the agricultural GDP at 2010/11 market prices. Corresponding shares of horticulture and livestock sub-sector in agriculture GDP were 9% and 14%, respectively.<sup>4</sup>

Average annual cereal production of Afghanistan (2005 to 2009) is 5.2 million tons. Year to year changes in the production level of cereals are considerable, ranging from 3.6 million tons (in 2008) to 6.3 million tons (2009) in 5 years (2005 to 2009). In 2002, 2004, 2006 and 2008 cereal production dipped considerably down mainly due to prolonged drought followed by dismal failure of rainfed crops. In 2003, 2005, 2007, 2009 and 2010 rich cereal harvest was reaped due to favourable weather conditions.

The highest self-sufficiency in cereal (97%) was achieved in 2009 when there was bumper harvest of cereals (6.33 million tons). In that year the shares of irrigated area and rainfed areas in the total cereal production were 67% and 33%, respectively.

The importance of rainfed agriculture cannot be overemphasised given its one-third share in the overall cereal production. Firstly, among the households engaged in agriculture, about one-third households have access to rainfed land.<sup>5</sup> Secondly, households that rely heavily on production from rainfed crops are in the remotest areas and are intensely vulnerable to crop failures. Lastly, irrigated land access to a household is typically estimated at less than 0.8 ha.<sup>6</sup> Hence, one of the challenges is to achieve long-term sustained growth in agriculture where the weather should not play a very dominant role in the overall cereal supply.

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1 Source: Central Statistics Organization (CSO)

2 Source: NRVA 2007/08

3 Source: Central Statistics Organization (CSO)

4 Source: Central Statistics Organization (CSO)

5 Source: NRVA 2007/08

6 Source: NRVA 2007/08

## **About this report**

This report delivers the findings of the missions commissioned by Ministry of Agriculture, Irrigation and Livestock (MAIL) to 34 provinces to assess the production prospects of cereals, horticulture crops, livestock and forestry. The primary sources for the report are Provincial Offices of MAIL (DAILs) in 34 provinces and over 7,850 farmers in them. However, other sources of information have also been used extensively. The estimates given in the report are preliminary at the time of reporting. Ultimate outcome will come later in the season. The purpose below is to give the main findings of the report:

## **Agriculture Prospects in 2012**

Current year offers bright prospects for cereal crops, horticulture, livestock and forestry. Overall cereal production in 2012 is forecasted to reach 6.3 million MT, which is the 2<sup>nd</sup> highest in 35 years. It is virtually on a par with the record level of 6.33 million MT in 2009; 42% up from 2011 and 21% above the average (5.2 million tons).

Wheat production in 2012 is going to be only 2% below the record level of 5.1 million MT in 2009. Compared with 2011, which was a bad agriculture year, increases in the production of various cereals in 2012 is forecasted as follows: wheat 48% (irrigated wheat 14%; rainfed wheat 367%)<sup>7</sup>; rice 11%; maize 3% and barley 65%.

Amount of cereal required for 2012 is estimated at 6.7 million MT. Given that the domestic production of cereals is 6.3 million MT, cereal deficit in 2012 is estimated at 400,000 MT. This translates into 94% self-sufficiency in domestic production of cereals (or a considerably narrowed deficit of 6%). Estimated wheat supply situations in MY 2012/13 in various provinces are given below:

- 7 provinces (**Badghis, Faryab, Balkh, Kunduz, Helmand, Takhar and Jawzjan**) will have surplus over 50,000 MT
- 3 provinces (**Nangarhar, Samangan and Sari-e-Pul**) will have surplus between 25,000 MT and 50,000 MT
- 3 provinces (**Logar, Nimruz and Baghlan**) will have surplus less than 25,000 MT
- 10 provinces (**Farah, Kunarha, Wardak, Badakhshan, Ghor, Paktika, Panjshir, Nuristan, Zabul and Uruzgan**) will have deficit below 25,000 MT
- 8 provinces (**Daikundi, Herat, Bamyan, Parwan, Kapisa, Khost, Laghman and Paktya**) will have deficit between 25,000 MT and 50,000 MT
- 3 provinces (**Kabul, Kandahar and Ghazni**) will have deficit over 50,000 MT

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<sup>7</sup> 2011 was a very bad agriculture year specifically for rainfed wheat

### **Reasons for the excellent agriculture prospects in 2012**

The main reason for the bright agriculture prospects in 2012 is the favorable weather conditions. Rainfall amounts in November, and January to June were good, although December was rather dry. The density and greenness of plant/pasture have been very conducive to favorable growth and development of cereal crops, horticulture and livestock alike. These conditions are likely to be similar in the coming months. Other good reasons for the excellent prospects include:

- Irrigated wheat area up 1%; its yield up 14%
- Rainfed wheat area up 25%; yield up 270%. Rainfed wheat had dismally failed in 2011
- Other cereals (barley, corn and rice) area up 7%; yield up 16%
- Incremental irrigated area from 2010 to 2011 is 28,000 ha
- Distribution of 17,000 MT wheat seed and 18,000 fertilizer (urea and DAP)
- Estimated production increases from 2011 to 2012 in horticulture sub-sector (7%) and livestock sub-sector (5%) will match well with rich cereal harvest
- Relatively lower incidence of pests and diseases
- Effective control of Locust (175,000 ha); Sunn pest (434,000 fruit trees); Melon fly (12 provinces; on-going) and Brown Tail moth (11,700 fruit trees)
- Provision of basic public services such as (i) Animal health services, (ii) On-farm irrigation (27 projects), (iii) Integrated Dairy Schemes for increased access to regular and dependable raw milk market (5 locations), (iv) Farmer Field Schools (104), (v) Research and extension and (vi) Reforestation.

### **Impacts and Action Needed in 2012**

Cereal production of Afghanistan remains in deficit with the requirement. The deficit is typically narrowed by four means: commercial import, food aid, use of Strategic Grain Reserve (SGR), and uncovered deficit (hunger).

In 2012 wheat import requirement will be less than one-fourth of the estimated imported amount in 2011 (1.8 million MT). Due to higher volume of domestic production, hunger will be alleviated because the amount of “uncovered deficit” will be smaller. Furthermore, compared with 2011, smaller amount will be needed for food-based safety nets such as (i) General Food Distribution; (ii) Food for Work for relief/recovery; (iii) Cash Vouchers; (iv) Food for Training; (v) Mother & Child Nutrition/Health and (vi) SGR.

The year-end-stock of wheat in MY 2012/13 is very likely to be larger compared with MY 2011/12, given that 2011 was a bad agriculture year with dwindling stock.

This year offers a golden opportunity to exploit considerable potential of Afghan agriculture for reaching near self-sufficiency in cereals and for attaining maximum food security. As regards this, good investment in the following areas is a key:

- Diversification and intensification of whole farm operations by:
  - (i) increased dependence on irrigation
  - (ii) distribution of 30,000 MT of wheat seed and 80,000 MT fertilizers
  - (iii) animal feed distribution (15,000 MT; to be purchased locally)
  - (iv) protecting agriculture against diseases and pests
  - (v) controlling weed as it is one of the main factors behind reduced crop production
  - (vi) ensuring greater access to agricultural and veterinary extension services and technological knowledge, both public and private
  - (vii) reducing post-harvest losses
  - (viii) increased crop areas in the spring
  - (ix) wider outreach and easier access to markets for horticulture crops
  - (x) purchasing grains and seed from farmers as preventive measures for price stabilization/incentives
  - (xi) provision for farm credit
- Strengthen agriculture value-chain by stimulating external, public and private investment in:
  - (i) fruit/vegetable processing factories
  - (ii) dairy scheme
  - (iii) flour mills
  - (iv) seed enterprises
  - (v) fertilizer production and import
  - (vi) slaughterhouse
  - (vii) widening market outreach for fresh and dry fruits exports
  - (viii) land leasing for:
    - a. commercial farming
    - b. other agribusinesses
  - (ix) storage facilities for grain, fruits and vegetables, in particular

Updated land cover map and the results of provincial crop cuts surveys are needed for bringing increased reliability in agricultural data.

## *Agriculture Prospects Report 2012*

### **1. Introduction**

This report provides preliminary estimates of cereal crop outputs and surplus/deficit for Afghanistan for the Marketing Year (MY) 2012/13. For the production of this report, Ministry of Agriculture, Irrigation and Livestock (MAIL) commissioned agriculture assessment missions to 34 provinces twice. The first mission was fielded in February, 2012 and the second in April/May. In each province the first mission monitored progress of planting of cereal crops in the current cropping season and collected information on the area intended for planting. The second mission gave sharper focus on the assessment of the production prospects of crops (cereals and horticulture) and livestock. MAIL missions from Kabul visited the following 25 provinces:

North	Faryab, Juzjan, Sar-i-Pul, Balkh and Samangan
North-East	Bughlan, Kunduz, Takhar and Badakhshan
West	Herat and Badghis
West Central	Bamyan
Central	Kabul, Parwan, Panjsher, Kapisa, Logar and Wardak
South	Paktya, Khost and Ghazni
East	Nangarhar, Laghman and Kunarha
South West	Daikunde

For the remaining provinces, FAO Regional Field Assistants (RFA) stationed in Kunzuz (North and North-East), Herat (West), Kandahar (South West) and Jalalabad (East) trained respective staff of Department of Agriculture, Irrigation and Livestock (DAIL) to do provincial agriculture monitoring/assessment. Accordingly, DAIL staff members undertook the crop assessment in the following provinces:

West	Farah (RFA Herat was held responsible for training)
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 in-depth discussions with the provincial and district staff of MAIL. They collected provincial level information and data on planting progress, crop area/production, livestock condition and the adverse factors (e.g. drought, floods, avalanche, frost, pests, diseases, quality of seed, etc.). The missions interviewed over 7,850 farmers (2,730 in February and 5,123 in April/May) from 34 provinces with the purpose of validating the data provided by DAILs. In the case of the second mission, MAIL received the reports and data from the missions, in electronic forms, by the third week of May. These data were quickly processed for analysis, interpretation and report writing.

In each DAIL 3 staff members collect and maintain information on cereal, horticulture and livestock production prospects on a regular basis. When needed MAIL contacts DAILs via Codan communication radios or mobiles. Technical departments of MAIL in Kabul and DAIL provide a

wealth of information on current crop and livestock situation. Information and data provided by FAO projects, FAO area offices and units, Ministry of Energy and Water, FEWS NET, USGS (Agro-met project), WFP missions, and FAO missions are also useful for the APR.

Agriculture is the backbone of Afghanistan's licit economy and the engine of the recovery process and further development. Agriculture sector contributed 28% of Gross Domestic Product (GDP) at 2010/11 market price<sup>8</sup>. The sector's share in overall employment is 59%.<sup>9</sup> The total value of licit export from Afghanistan was US\$388.5 million in 2010/11.<sup>10</sup> The major export items were carpets and rugs (40% of the total value of the export), dried fruits (27%), medical plant (10%), wool (8%), fresh fruits (7%), skin (4%) and other items (4%).<sup>11</sup> Hence, the importance of agriculture sector in overall economy and export earnings is obvious.

Overall performance of agriculture in Afghanistan is very much dependent on cereal production, which accounted for three-fourth of the agricultural GDP at 2010/11 market prices. Corresponding shares of horticulture and livestock in agriculture GDP were 11% and 14%, respectively.<sup>12</sup>

This report translates latest data and information into decisive, quantitative data. Most of data presented in the report are primarily based on the provincial assessment reports and the results of the farmers' survey. However, data from secondary sources have also been used extensively. For example, provincial level data on incremental irrigated areas obtained from the Ministry of Energy and Water were very important data considered. For validation and consistency checks, absolute and relative data provided by DAILs, farmers and others were compared with historical data sets, latest rainfall amount/pattern, and most updated field reports.

## **2. Weather and Cereal Crop Condition**

The country experienced good amount of rainfall in November. December was rather dry, but the accumulated rainfall from January to April was above normal in most parts of the country. The amount and distribution of rainfall in April and May/June 2012 were very much favorable for the growth and development of standing crops and already rich pasture. (Annex 1)

The results of the DAIL reports/feedback as well as farmers' interviews suggest that both irrigated and rainfed crops are in good conditions. The key factors that contributed towards bright cereal production prospects in 2012 are:

- (i) generally adequate and well distributed rainfall/snowfall; good weather conditions for farming; increased water table, favorable spring and good river flows
- (ii) incremental areas brought under irrigation in recent years, which translates into about 28,000 ha annually, on average

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<sup>8</sup> Source: Central Statistics Organization (CSO)

<sup>9</sup> Source: NRVA 2007/08

<sup>10</sup> Source: Central Statistics Organization (CSO)

<sup>11</sup> Source: Central Statistics Organization (CSO)

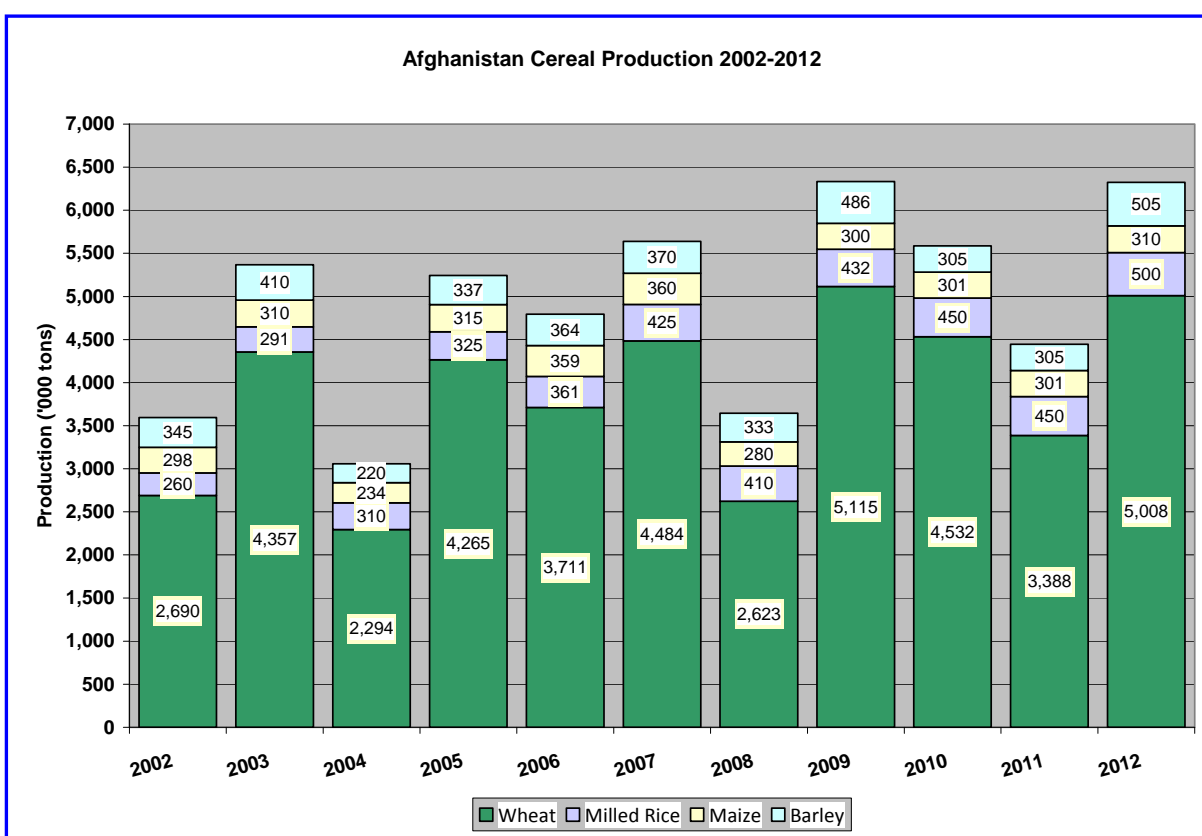
<sup>12</sup> Source: Central Statistics Organization (CSO)

- (iii) 33% increase in the production of improved wheat seeds<sup>13</sup> (Annex 2);
- (iv) increased use of improved seeds/fertilizers; increased distribution of spring seeds
- (v) effective and timely control of pests and diseases (Locust, Sunn pest, Brown tail moth, Colorado potato beetle, and Melon fly, in particular)

Latest field reports suggested that weather condition in May/June was highly favorable to the standing crops and that the standing crops are generally in good conditions. Latest satellite imagery confirm that there is rich density and greenness of plant and pasture canopy in 2012. (Annex 8)

### 3. Cereal Area, Production, Requirement and Deficit

Cereal harvest in 2012 is going to be very rich. This is good news specifically for people and institutions that have wider agricultural development horizons. To emphasize strongly, overall cereal production in 2012 is forecast to reach 6.32 million tons, which is almost on a par with the record level of 6.33 million tons in 2009 and 21% above the average (2005 to 2009; 5.2 million tons). Production of wheat in 2012 is forecast to reach 5.0 million tons, which is less than 2% below the record level of production of 5.1 million tons in 2009.



Total area planted with cereal crops in 2012 is estimated at 3.14 million hectares. The forecast for cereal production in 2012 is 6.3 million tons, including wheat 5.0 million tons (79%) and barley

<sup>13</sup> Details on the quality wheat seed production are shown in Annex 2

505,000 tons (8%). In recent years barley and paddy are gaining popularity, slowly but surely. Paddy and maize will be cultivated later in the year. Anticipating favorable planting/growing conditions for paddy and maize, milled rice and corn production in 2012 are forecasted to reach 500,000 tonnes and 310,000 tons, respectively.

**Table 1: Forecasted Area and Production of different Cereals in 2012  
(Preliminary estimates)**

<b>Crop</b>	<b>Area (‘000 ha)</b>	<b>Yield (tons/ha)</b>	<b>Production (‘000 tons)</b>
Irrigated wheat (Winter & Spring)	1,167	3.01	3,510
Rainfed wheat (Winter & Spring)	1,345	1.11	1,498
<b>All wheat</b>	<b>2,512</b>	<b>1.99</b>	<b>5,008</b>
Barley	280	1.80	505
Milled rice (paddy yield)	205	3.64	500
Maize	141	2.20	310
<b>Overall</b>	<b>3,138</b>	<b>2.01</b>	<b>6,323</b>

Compared with 2011, increases in wheat area and yield are estimated at 13% and 31%, respectively. As a result of these increases, rise in the wheat production in 2012 is forecasted to reach almost 50% up on 2011.

**Table 2: Changes in the 2012 wheat area, yield and production compared to 2011**

<b>Crop</b>	<b>2011</b>			<b>2012</b>			<b>% change in</b>		
	<b>Area</b>	<b>Yield</b>	<b>Prod</b>	<b>Area</b>	<b>Yield</b>	<b>Prod</b>	<b>Area</b>	<b>Yield</b>	<b>Prod</b>
Irrigated wheat	1,156	2.65	3,067	1,167	3.01	3,510	1.0	13.6	14.4
Rainfed wheat	1,076	0.30	321	1,345	1.11	1,498	25.0	270.0	366.7
<b>All wheat</b>	<b>2,232</b>	<b>1.52</b>	<b>3,388</b>	<b>2,512</b>	<b>1.99</b>	<b>5,008</b>	<b>12.6</b>	<b>30.9</b>	<b>47.8</b>

Table 2 indicates that 2011 was a very bad year for rainfed wheat yield. Compared with the 2010 level, increases in wheat area and yield/production in 2012 are estimated at 0.3% and 10%, respectively.

**Table 3: Changes in the 2012 wheat area, yield and production compared to 2010**

<b>Crop</b>	<b>2010</b>			<b>2012</b>			<b>% change in</b>		
	<b>Area</b>	<b>Yield</b>	<b>Prod</b>	<b>Area</b>	<b>Yield</b>	<b>Prod</b>	<b>Area</b>	<b>Yield</b>	<b>Prod</b>
Irrigated wheat	1,151	2.68	3,082	1,167	3.01	3,510	1.4	12.3	13.9
Rainfed wheat	1,353	1.07	1,450	1,345	1.11	1,498	-0.6	3.7	3.3
<b>All wheat</b>	<b>2,504</b>	<b>1.81</b>	<b>4,532</b>	<b>2,512</b>	<b>1.99</b>	<b>5,008</b>	<b>0.3</b>	<b>9.9</b>	<b>10.5</b>

Year to year changes in the production levels of cereals in the last eight years are shown in Table 4. The 2005, 2007, 2009 and 2010 were years with good cereal harvest mainly due to favorable weather conditions. In 2006, 2008 and 2011 cereal production dipped considerably down due to drought.

**Table 4: Cereal production in Afghanistan (2005-2012) ('000 tons)**

Crop	Harvest Year							
	2005	2006	2007	2008	2009	2010	2011	2012 <sup>14</sup>
Irrigated wheat	2,728	2,902	2,878	2,406	3,433	3,082	3,067	3,510
Rainfed wheat	1,537	809	1,606	217	1,682	1,450	321	1,498
<b>All wheat</b>	<b>4,265</b>	<b>3,711</b>	<b>4,484</b>	<b>2,623</b>	<b>5,115</b>	<b>4,532</b>	<b>3,388</b>	<b>5,008</b>
Milled rice	325	361	425	410	432	450	450	500
Maize	315	359	360	280	300	301	301	310
Barley	337	364	370	333	486	305	305	505
<b>Total cereals</b>	<b>5,242</b>	<b>4,795</b>	<b>5,639</b>	<b>3,646</b>	<b>6,333</b>	<b>5,588</b>	<b>4,444</b>	<b>6,323</b>

The total cereal requirement in MY 2012/13 is forecasted to reach 6.77 million tons, of which 5.43 million tons (80%) is wheat's share. Assuming no difference in "year-end-stocks" between MY 2011/12 and MY 2012/13, net import requirement of cereals in MY 2012/13 is estimated at 442,000 tons, which includes 422,000 tons of wheat and 20,000 tons of milled rice.

**Table 5: Cereal Balance Sheet in MY 2012 ('000 tons)**

Crop	Requirements					Domestic production	Surplus/ Deficit
	Food	Seed	Feed	Loss	Total		
Irrigated wheat		204		527		3,510	
Rainfed wheat		112		225		1,498	
<b>All wheat</b>	<b>4,362</b>	<b>316</b>		<b>752</b>	<b>5,430</b>	<b>5,008</b>	<b>-422</b>
Milled rice	463	22		35	520	500	-20
Maize	55	8	200	47	310	310	
Barley	27	45	357	76	505	505	
<b>Total</b>	<b>4,907</b>	<b>391</b>	<b>557</b>	<b>910</b>	<b>6,765</b>	<b>6,323</b>	<b>-442</b>

Exact details on cereal crop data and wheat balance by province can be found in Annex 4 to Annex 6.

#### **Yield potential in wheat**

Typically yield of wheat in irrigated field is 2.7 times more than the yield in rainfed field in a good year. In comparison with local or traditional varieties, the improved wheat varieties are estimated to give up to 30% incremental yield in irrigated areas.

<sup>14</sup> Forecast

This year's agriculture prospects demonstrate that, under favorable weather conditions, Afghan agriculture has the potential to reach near self-sufficiency in cereals and to achieve maximum food security. To achieve self-sufficiency, good rainy year, increased dependence on irrigation, provision of modern inputs, protection against diseases and pests are required. As regards this essential agricultural services are not available or accessible to most farmers. Insufficient outreach of agricultural and veterinary extension services and poor accessibility of markets for input supplies and product sales are other serious constraints specifically to households in remote areas. Large-scale investment in agriculture is needed swiftly to increase the sector's low productivity and to provide basic agricultural services to the farmers.

#### **Some useful indicators**<sup>15</sup>

Gross Domestic Products (GDP) at market price, 2010/11

Share of agriculture sector 28%

OF WHICH

Cereals and tubers 22%

Horticulture 2%

Livestock 4%

#### **Additional indicators**<sup>16</sup>

Households with Access to land 55%

Mean land size

All households 0.54 ha

Households owning irrigated land 1.34 ha

Households with no irrigated land 60%

Households with no rainfed land 83%

Employment

Agriculture sector's share in overall employment 59%

Unemployment rate 7%

Vulnerable employment 91%

Cultivation

Manual 8%

Animal 52%

Tractor 39%

Households using fertilizer 62%

Households receiving agricultural extension advice 10%

Households obtaining vet service 15%

Main reason for leaving rainfed land fallow

Lack of rain 37%

Land not fertile 31%

No resources for cultivation 13%

Household having some kind of livestock 68%

<sup>15</sup> Source: Central Statistics Organization

<sup>16</sup> Source: National Risk and Vulnerability Assessment, 2007/08

Bright agriculture prospects in 2012 are the results of:

- Generally favorable weather: November and January to June good, although December was rather dry
- Irrigated wheat area up 1%; its yield up 14%
- Rainfed wheat area up 25%; yield up 270%. Rainfed wheat had failed in 2011
- Other cereal area up 7%; yield up 16%
- Incremental irrigated area of 28,000 ha
- Distribution of 17,000 MT wheat seed and 18,000 fertilizer (urea and DAP)
- Effective control of:
  - Locust (175,000 ha)
  - Sunn pest (434,000 fruit trees)
  - Melon fly (12 provinces; on-going)
  - Brown Tail moth (11,700 fruit trees)
- Density and greenness of plant/pasture very conducive to favorable growth and development of all types of crops/livestock (Annex 8)

In this connection, rich cereal harvest will match well with the production growth in horticulture and livestock sub-sectors. Towards this end the contributions made by individual General Directorates of MAIL are described below:

#### **4. Plant protection**

MAIL mounted control campaign against major crop pests and diseases such as grape vine diseases, locust, hairy tent caterpillar, codling moth, pomegranate borer, sun pest, Colorado potato beetle and melon fly. The campaign began in line with the weather conditions and cropping calendar. Pesticides and equipment were sent to the provinces according to their needs and based on the incidence and the nature of the pest and disease attacks. The control campaign against locust, hairy tent caterpillar, grape vine-diseases and potato beetle is virtually in the process of completion, whilst campaign against codling moth, pomegranate borer and melon fly is on-stream.

##### **4.1. Grape vine diseases**

Lime sulfur spray started on February 20th, 2012 and ended on March 24, 2012. Parwan, Kabul, Ghazni, Logar, Hirat, Kandahar, Zabul and Faryab (8 provinces) were covered by this activity. Under this 20,000 kg of sulfur was used to prevent vine yards from fungal diseases.

Sulphur dust spray in vineyards covered Kunduz, Takhar, Samangan, Balkh, Jawzjan, Sar-e-pul, Faryab, Hirat, Kabul, Parwan, Kapisa, Logar, Paktia, Ghazni, Zabul, Kandahar and Nangarhar (17 provinces).

##### **4.2. Locusts**

The campaign against locust started on April, 3<sup>rd</sup> and ended on June, 9<sup>th</sup> in most of the provinces. The campaign has covered over 175,500 hectares of (mostly) cereal crops in Jawzjan, Sar-e-pul,

Balkh, Samangan, Baghlan, Kunduz, Badakhshan, Hirat, Ghor, Kabul and Logar (11 provinces) by end-May. There are no reported cases of the locust in Parwan, Bamyán, Badghis and Panjshir provinces.

#### **4.3. Hairy tent caterpillar**

This campaign started on the 13<sup>th</sup> of April and ended on the 20<sup>th</sup> June. Kapisa, Nooristan, Parwan, Wardak, Ghazni, Panjshir, Balkh, Baghlan, Bamyán, Takhar, Badakhshan and Samangan (12 provinces) were covered under this.

#### **4.4. Brown tail moth**

The campaign against brown tail moth covered 433,753 fruit trees in Samangan, Baghlan, Takhar, Badakhshan, Parwan, Kapisa, Maidan Wardak and Panjshir (8 provinces).

#### **4.5. Sunn pest**

This pest is not common this year. The campaign against the pest was planned in Samangan, Balkh, Jawzjan, Faryab, Sar-e-pul, Hirat, Badghis and Helmand (8 provinces). The campaign against this pest was launched in Helmand (1,200 ha) and in Kushk Rubat Sangi district of Hirat province. Biological control of sunn pest is greatly preferred choice.

#### **4.6. Colorado Potato Beetle**

The campaign against Colorado potato beetle was planned for one month. Accordingly, the campaign in Baghlan (458 hectares), Takhar (526 hectares), Badakhshan (10 hectares) and Samangan (8 hectares) ended successfully. It is underway in Bamyán. Kunduz has no reported case of common occurrence of this pest this year.

#### **4.7. Codling moth**

Kabul, Parwan, Panjshir, Logar, Maidan Wardak, Paktia, Nangarhar, Ghazni, Baghlan, Takhar, Samangan, Kunduz, Bamyán, Badakhshan, Faryab and Bamyán (16 provinces) will be covered under this. By mid-June 11,705 trees of Samangan, Hirat, Parwan, Logar, Maidan Wardak, Paktia and Ghazni (7 provinces) have been treated. The campaign against this pest will last for another one month at least. Necessary campaign against this is yet to be launched in Takhar, Baghlan, Faryab. Kunduz, Kabul, Badakhshan, Panjshir, Bamyán and Nangarhar.

#### **4.8. Pomegranate borer**

One-month long control campaign against this pest is planned for Kandahar, Balkh, Kapisa, Farah and Nangarhar (5 provinces).

#### **4.9. Melon fly**

Baghlan, Kunduz, Takhar, Badakhshan, Samangan, Balkh, Sar-e-pul, Jawzjan, Faryab, Badghis, Hirat and Ghazni (12 provinces) are covered by this activity. As regards this, mulching<sup>17</sup> started in middle of May in these provinces. Bagging<sup>18</sup> has been started in Helmand.

MAIL is concerned about a melon disease in Kunduz and other north and northeastern provinces which may cause serious damage to the said crop. MAIL is taking appropriate measures to diagnose and contain the disease.

#### **4.10. IPM and Farmer Field School (FFS)**

For successful pest management, the IPM approach using Farmer Field School (FFS)<sup>19</sup> has been introduced. In FFS, farmers grow crops together, monitor their growth on a weekly basis, and discuss crop management practices that are most effective. As of May 2012, the participants from Badakhshan, Takhar, Kunduz, Baghlan, Samangan, Balkh, Juzjan, Sar-i-Pul, Faryab, Bamyan and Herat (11) have attended FFS. A total of 2,600 households participated in these 104 FFS as the direct beneficiaries, whilst the indirect beneficiaries are estimated to be over 5,200 households.

#### **4.11. Challenges to the IPM**

- There is a lack of public cooperation for effective implementation of the campaign.
- Free distribution of inputs/cash has changed attitude of farmers and service providers.
- Lengthy process of procurement.

### **5. Livestock and animal health**

#### **5.1. Overall condition**

Latest data on livestock numbers are unavailable. Livestock numbers in Afghanistan in 2003 were as follows:

**Table 6: Livestock numbers ('000) in 2003<sup>20</sup>**

<b>Cattle</b>	<b>Sheep</b>	<b>Goats</b>	<b>Donkeys</b>	<b>Camels</b>	<b>Horses</b>
3,715	8,772	7,281	1,588	175	142

<sup>17</sup> A protective covering placed around plants to prevent the evaporation of moisture, the freezing of roots, and the growth of weeds.

<sup>18</sup> Covering the plants with cloth or plastic bags.

<sup>19</sup> FFS is sponsored by "Promoting Integrated Pest Management", a MAIL/FAO project funded by the Government of Norway

<sup>20</sup> Source: Afghanistan National Livestock Census 2002-2003. Latest data on livestock numbers are unavailable

For most Afghan farmers, animals are the only source for power for cultivation and transport. The preferred animal for draft power is the oxen; however, many farmers are too poor to own oxen. The next most frequently used animal for draft is donkey.

In 2012 livestock will also be in very good conditions. Feed and chaff will be available well above normal level in MY 2012/13, thanks to the large volume of cereal production. Pastures will be in very good conditions too. As a result, production prospects of livestock number and products are also going to be very attractive in 2012. Compared with the last year production of livestock products in 2012 is estimated to be up 5%. Based on available information from various sources within MAIL and latest field reports, preliminary estimates of the production of various livestock products in 2012 are presented in Table 7.

**Table 7: Livestock Products in 2012  
(Preliminary Estimates)**

<b>Type</b>	<b>Unit</b>	<b>Production in 2012<sup>21</sup></b>
<b>Meat</b>	<b>Ton</b>	<b>156,900</b>
Beef	Ton	61,900
Mutton	Ton	40,900
Goat meat	Ton	34,300
Camel meat	Ton	3,300
Chicken	Ton	8,800
Other	Ton	7,700
<b>Milk<sup>22</sup></b>	<b>Ton</b>	<b>2,032,400</b>
<b>Hides</b>	<b>No.</b>	<b>796,600</b>
<b>Skins</b>	<b>No.</b>	<b>4,647,000</b>
<b>Eggs</b>	<b>Ton</b>	<b>25,900<sup>23</sup></b>

The main problems in livestock sub-sector are loss of and reduction in animal numbers, declining feed, overgrazing, and the adverse effects of animal diseases. Rangelands are overgrazed and nomadic and semi-sedentary shepherders are operating with high livestock mortality rate. Some rangelands have been converted into rainfed crop land, leading to soil instability, soil erosion and other problems. Even when rainfall conditions are favorable, productivity improvements in the small ruminant sector (sheep and goats) are hampered by traditional user-rights and grazing practices.

<sup>21</sup> Based on the production estimates for 2003 given in Master Plan for Agriculture, Irrigation and Livestock, field reports and the growth projections

<sup>22</sup> Estimated shares in 2003 were cow's milk (67%), ewe's milk (15%), goat's milk (13%) and camel milk (4%)

<sup>23</sup> This is equal to 17 eggs/person/year @57 gm/egg

### **Poultry Survey of 2011**

Horticulture and Livestock Project had established 25,000 small scale layer-units in 19 districts of Afghanistan by 2011, targeting vulnerable, poor and rural female beneficiaries. The 2011 Poultry Survey, which covered 7,000 layer units from 2009 revealed the following:

- 92% of the beneficiaries had continued to be engaged in the small enterprise. The distributed birds had already completed their productive cycle; majority of the beneficiaries of 2009 were witnessing third productive cycle in 2011.
- Average number of birds owned per beneficiary was 1.2 birds before project the project; 13 after the project. One-fourth of the beneficiaries had more than 15 birds.
- All beneficiaries had culled the non-productive hens of the first cycle.
- Most of the feed agents had converted their feed shops into full-pledged farm shops enabling them to supply the inputs required by the beneficiaries.
- Additional 794 non-beneficiaries had started poultry farming emulating the project's effort. They were rearing 16 birds on average.

## **5.2. Integrated Dairy Schemes**

The goal of Integrated Dairy Schemes (IDS) established in Kabul, Kunduz, Mazar and Herat – and to be established in Nangarhar, shortly - is to raise the productive capacity of the national dairy sector for the sustainable development of the schemes. These schemes aim to improve livestock productivity by bringing improvements in feeding, breeding, animal health, housing and cattle management.

The challenges to be responded by the IDS are (a) the need for swift transfer of all technical, financial and managerial functions to MAIL, (b) competition from unregulated imports of dairy products, and (c) volatile security situation.

## **5.3. Animal health**

Animal health care has 60 years' history in the country. Previously, 166 animal clinics were functioning under the Animal Health Department. In line with the policy shift, MAIL handed over all the clinics, in two phases, to private sector. In totality, 954 animal clinics in the country will be delivering animal health services in 2012.

More common diseases found in livestock are FMD, Brucellosis, PPR, Anthrax, Q-Fever, New castle and Hemorrhagic Septicemia. The number of animal deaths due to various diseases and adverse factors in 2011 is estimated at 139,000. (See Annex 7e) Unless effective preventive measures are taken, the number of animals' death due to diseases and adverse factors is forecast to reach 150,000 in 2012.

## 6. On-farm irrigation

There is a pressing need for on-farm, low-cost water-efficient technologies. Irrigation Department of MAIL started its activities in 2010. The department is implementing 27 projects in 16 provinces. Precise details on the progress made by these projects are presented in Annex 3.

## 7. Horticulture

Data on horticulture products are scanty. Based on available information from various sources within MAIL and latest field reports, preliminary estimates of the production of various fruits and vegetables in 2012 are presented in Table 8.

**Table 8: Production of Fruits and Vegetables, 2012  
(Preliminary Estimates)**

Commodity	Production (‘000 tons)
<b>All fruits (Afghanistan)</b>	<b>1,401</b>
Almond	47
Walnut	12
Grape	530
Apple	90
Apricot	75
Orange	9
Other citrus	2
Pomogranate	24
Pear	3
Peach	12
Plum	25
Melons	222
Water Melons	190
Other fruits	160
<b>All vegetables (Afghanistan)</b>	<b>834</b>
Potato	500
Onion	135
Tomato	85
Carrot	37
Okra	20
Pumpkin	17
Others	40

At the national level horticulture production in 2012 is estimated to be 7% more than the last year. Higher and sustained growth followed by marketable surpluses of fruits and vegetables will enable substantially higher foreign exchange earnings for Afghanistan in 2012.

In the northern region, fruits and vegetables are in good conditions, although there are reported cases of slight damage by the flash floods in few areas. The main fruits for the **northern region** are melon, water melon, almond and pomegranate. Fruit production in the northern region is expected to be 10% more than the last year. Main fruits in Balkh are melon and water melon. Grapes are in good conditions but almond suffered damage by frost. Melon flies and aphid have been reported to be serious problem in some areas of this province. In Mazar the farmers, fruits' and vegetables' wholesalers are happy to have a better production and marketing prospects than the last year. In Samangan, the main fruits are almond, grape, apricot, pomegranate and walnut. Aphid in grape has been reported. Little over 300 ha of fruits and vegetables have been destroyed by floods. In Faryab production of fruits is estimated to be 8% more than the last year. The main fruits are apple, grape, apricot and peach. Aphid in grapes has been reported. In Sar-I-Pul fruit production is going to be at least 15% less than the last year. The main fruits are grapes, almond, peach, pistachio and pear. Serious damage due to floods have been reported in fruits (100 ha) and vegetables (over 50 ha).

Fruits and vegetables in the **North-East** are generally in very good conditions and are expected to be at least 10% more than last year, thanks partly to ample marketing opportunities. The main fruits in North-eastern region are melon, water melon, grape, apple and almond. Some areas with horticulture were damaged by floods in Khinjan and Dushi districts of Baghlan province. Reports of disease in fruits (aphid, anthracnose and melon flies) and vegetables (Colorado beetle in potato and grasshopper) have been reported in Kunduz and Baghlan. Hailstone damaged fruits in Kunduz. Grape production is very good this year especially in Kunduz. Recent rainfalls in Kunduz caused rust and aphid in vegetables.

Area with fruit in the **West** is estimated to be only slightly higher than last year. Grape production is going to increase by over 20%. Stone fruits (apricot, almond and plum) in some districts have been adversely affected by harsh weather conditions, including frost. The yield reduction in these crops will be 20% compared to the potential yields. As regards vegetables, both area and production have increased by 5% compared to last year and their production prospects are good. Aphid has been spotted in vegetables and fruits in few areas. Hailstorm of the 26<sup>th</sup> and 27<sup>th</sup> of May impacted negatively to some orchards in rainfed areas of Herat (Gulran, Kushk-i-Robat Sangi and Kushk-i-Kuhna districts). In Farah, area under and production of fruits are forecasted to be same as last year. Vegetables have been adversely affected by harsh weather conditions that would cause estimated 10% reduction in their potential yield. In Badghis, area with fruits has increased by about 10% compared with last year but their potential yield will be reduced by about 5% because of the hailstone damage of May, 26<sup>th</sup> and 27<sup>th</sup>. Vegetable area is expected to be same as last year but its production will be reduced by 6% because of the afore-mentioned causative factor.

In **West Central Region**, area with fruits and vegetables shows an increase by a narrow margin only. In Bamyan, area with fruits (apple and apricot, especially) has increased by about 5% than that of last year, thanks mainly to the considerable effort made by Root of Peace (an NGO). Yield

of fruits is forecasted to be at the same level as last year. Area with vegetables (potato, cabbage, tomato and carrot, in particular) is at par with the last year but their yield will be reduced due to unfavorable weather condition and aphid. Major problems in vegetable production are short growing season, cut worms, aphids and lack of good quality seed. In Ghor, area planted with fruits has increased by about 15% compared to last year, and yield by 10% compared to last year. Vegetable area also shows an increase of over 15% and overall vegetable production is likely to increase by over 10%. Hailstone, pest and diseases are the main challenges faced by horticulture crop growers in Ghor this year. These adverse factors will cause reduction in the “potential yield” of such crops by about 15%.

In **Central Region**, more ideal conditions exist for growing fruits and vegetables. Irrigation is available and widely used for intensified and diversified horticulture. Marketing of fruits and vegetables is easier due to relatively easier access to transportation facilities. Access to extension facilities and good seed is also unrestricted. A sharp (15%) and sustained rise in production of fruits and vegetables is realistically expected.

Paktya in **South** has good conditions for growing fruits and vegetables. Irrigation is available and widely used for horticulture. Apple gardens have been adversely affected by powdery mildew, causing reduction in yield potential by 5%. Farmers have requested DAIL to help eradicate the disease. In Paktika horticulture this year is good because there was adequate rainfall during the crucial period of flowering. Less damage due to hailstone and less prevalence of pests and disease are other salient features this year. Hence, bumper production of fruits is expected. Horticulture is in good condition in Khost also. DAIL has made plan to control common diseases and insects in horticulture. In Ghazni prospects of horticulture are good as there were timely precipitation of snow and rains. Bumper harvest of fruit is going to be reaped this year. Spring rainfall has also helped a lot in this regard.

In **Eastern Region** area under and production of fruits have increased specifically for citrus (lemon, orange and Keno), pear, peaches and apricot, especially in the last 5 years. Yield is going to be at least 5% higher than normal this year due to availability of enough water for irrigation and good weather condition. There is no reported case of adverse conditions also. Area cultivated with vegetables has significantly increased compared to last year and before last year because it has potential to generate much higher income compared to other (licit) crops. Last year and this year the price of vegetables was favorable and there are good market outlets for fruits and vegetables within eastern region and outside. In the last two years the price of tomato and onion has gone higher encouraging farmers to increase the area under these crops. Yield of these crops is much better than last year and the year before that. Main vegetables grown in Nangarhar and Laghman are cauliflower, cucumber, onion, tomato, spinach, squash, okra and eggplant. Cucumber, tomato and onion, in particular, bring in very healthy profit to farmers. If enough water is available for irrigation, substantial increase in the area under vegetables is a profitable venture in the eastern region.

In the **South-West** overall condition of horticulture, with flowering in the mid or late spring, is very good. Some fruits like plums have been adversely affected by harsh weather in winter, and by early spring. High wind also damaged some fruit trees during flowering. This year supply of irrigation water is reliable and there is no reported case of any serious pests or diseases in fruits

and vegetables. Following DAIL's and donors' efforts new seedlings are being planted. Since three 3 years the only direction area under horticulture is going is up. Peach, plum and apricot from Kandahar fetch high price in the market for their best quality. Additional cold stores established in the province will help reduce post harvest losses. In Helmand farmers grow fruits primarily for home consumption because of a lack of good market opportunity locally or out side. DAIL is working with Provincial Reconstruction Teams (PRT) and other stakeholders to increase horticulture production. In Zabul fruits and vegetables were badly damaged by hailstone. There is no reported case of other diseases or pests. Irrigation water is enough in Karizes and canals. In Urozgan horticulture has been badly affected by cold weather during flowering stage. Almond are affected by soft scale and grapes have powdering mildew. Other fruits are in normal conditions. In Nimroz horticulture is yet to revive its lost vigor, especially in Khashrod and Zarang, which have potential to become important areas for fruits. Zarang has great potential for horticulture production particularly after Nahre Lashkari will be rehabilitated. In other parts of the province the farmers have lesser access to irrigation water. They have no sizeable marketable surpluses of fruits and vegetables also because these crops are primarily grown for home consumption. In Urozgan horticulture is badly affected by cold weather during flowering stage. Almond trees are affected by soft scale; grapes have powdering mildew. Other fruit trees are in normal conditions. Fruit and vegetables are in below normal conditions in Daikunde. Area under fruits is at par with last year but the production is going to be lower because about 50 ha of orchards and 40 ha of vegetable area have been damaged by recent floods.

## 8. Natural Resources

Afghanistan had 1.34 million hectares of forest and 29.2 million hectares of rangeland.<sup>24</sup> The two tables below mirror efforts made by MAIL in the development and rehabilitation of forest nurseries.

**Table 9: Development and rehabilitation of forest nurseries, 2010-2012**

Activities	Unit	2010	2011	2012 Plan	Total
<b>Nurseries</b>					
New nurseries	Jerib	540	371	293	1,204
Technical operation in nurseries	Jerib		140	178	318
Rehabilitation of poplar gardens	Jerib		94		94
<b>Management of water</b>					
Building Check dams	M <sup>3</sup>		1,700	1,570	3,270
Establishing terraces	M		210,000	333,300	543,300
<b>Distribution of saplings</b>					
Poplar saplings to farmers	Pcs		1,000,000		1,000,000
Saplings in water-falls	Pcs		70,000	111,100	181,100
Other saplings	Pcs	3,040,131	3,046,647	40,011,000	46,097,778

<sup>24</sup> Source: The 1990-93 Land Cover Dataset; latest data are unavailable

**Table 10: Forests rehabilitation, 2006–2011**

<b>Detail</b>	<b>Achievement</b>
Pistachio forests (hectare)	1,907
Pinenuts (Jalghoza) forest (hactare)	160

## **9. Research and Extension**

MAIL conducts research trails on cereals, industrial crops, leguminous crops, vegetables, fruits, fodder and experiments in the fields of agronomy, irrigation, soil and crops pests and diseases. Of the current 103 research trails, 52 are conducted in the winter and 51 in spring. Wheat seed of more than 15 varieties are delivered each year. A few new varieties (2-3) of wheat, 3 new varieties of maize and 2 new varieties of mung beans are ready for release after years of adaptation, testing and screening.

## **10. Adverse Factors**

Some provinces were struck by floods. At the national level, net damage caused by the floods to land planted with various crops is estimated at 15,000 ha and the total loss of cereals due to the floods damage is estimated at 20,000 tons. Data on adverse factors affecting crops and livestock production systems are shown in Annex 7. These data are indicative only and should be used with caution.

## **11. Remarks**

### **11.1. Supply and price of wheat**

Wheat harvest in 2011 was very poor and, as a result, wheat deficit in Afghanistan for MY 2011/12 was 1.8 million tons. Current domestic prices of wheat and wheat flours mirror good supply provisions, a decrease in its price in the CIS and international/regional markets, and rich domestic production prospects. Regional supply of wheat is adequate. Domestic price of wheat in the last nine months shows a generally decreasing and stabilization trend. The price of wheat on global market at present also shows a marked favorable trend for the net importers like Afghanistan.

Latest information on supply and price of wheat in domestic, regional and international markets can be found in “Agricultural Commodity Price Bulletins” issued by MAIL in the last week of every month. The bulletins provide information on the prices of other commodities and services also.

### **11.2. Reliability of crop data**

The APR provides reasonably reliable crop and livestock data that can be gathered and provided by MAIL on a timely basis under the prevailing circumstances. Adverse effects of drought, pests, diseases, floods, etc. on crops may change the production prospects dramatically as they happen and/or as more facts become known. MAIL updates such data as the marketing year progresses. The data shown in (updated) APR become more reliable as the year reaches near its end.

Reliability of benchmark data on crop areas will be increased by MAIL when land cover map based on SPOT 4 imagery will be ready by the end of this year. The 1990-93 Land Cover Dataset - comprising land cover maps, satellite photomaps and national and provincial land cover statistics - has been the only reliable base-layer dataset for planning and management of Natural Resources in Afghanistan for the past 15 years. Considerable changes have occurred since the early 1990s in the Land Cover of Afghanistan. To emphasize the improvement, the 1990-93 Dataset provided map output at a scale of 1:250,000, whilst the new map outputs will be at scales of about 1:50,000. It is planned that the entire task of land cover mapping will be completed by late 2012. This will result in increased reliability of statistics on land cover.

Similarly, MAIL conducts probability sample surveys<sup>25</sup> (crop cuts) in 24 provinces<sup>26</sup> for estimating provincial level yield of wheat and paddy. Such surveys provide reasonably reliable and objective data on crop yield. Harvest of wheat has already started in the eastern regions of the country and the crop cuts surveys in Nangarhar, Kunarha and Laghman have been undertaken successfully. Preliminary field reports of DAIL staff involved in crop cuts in the eastern region confirm that the farmers in the east have had a bumper harvest of wheat. The crop cuts surveys are being conducted in other 21 provinces. Bulk of wheat and barley harvest will have been reaped only by July.

### **11.3. Next issue of Agriculture Prospects Report**

Next APR will be issued when the production levels of paddy and maize will have been better known. The results of the crop cuts surveys of wheat and paddy and latest information from the provinces will be used to provide updated data in the next issue of APR.

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<sup>25</sup> MAIL uses purposive sampling in the case of crop area and production assessment. Crop cuts surveys are probability sample survey. Precise details on crop cuts survey are not provided here. GDPP can provide information on the crop cuts survey methodology

<sup>26</sup> Badghis, Baghlan, Balkh, Bamyan, Daikundi, Farah, Ghor, Helmand, Heart, Jawzjan, Kabul, Kandahar, Kapisa, Kunar, Kunduz, Laghman, Logar, Nangarhar, Nuristan, Panjsher, Parwan, Samangan, Takhar and Wardak

**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 11	Dec 11	Jan 12	Feb 12	Mar 12	Apr 12	Rainfall amount compared to LTA (%)					
			LTA	LTA	LTA	LTA	LTA	LTA	Actual	Actual	Actual	Actual	Actual	Actual	Nov 11	Dec 11	Jan 12	Feb 12	Mar 12	Apr 12
North	Faryab	Maimana	28.0	35.0	47.9	55.8	83.9	65.0	75.5	0.0	44.8	22.5	20.5	67.0	270	0	94	40	24	103
North	Juzjan	Sheberghan	15.0	29.0	34.8	26.5	41.3	37.1	69.4	13.0	21.8	33.5	44.1	37.6	463	45	63	126	107	101
North	Sari Pul	Sari Pul	0.0	0.0	89.0	18.3	10.9	6.1	115.5	34.0	42.5	70.0	49.0	58.0	>100	>100	48	383	450	951
North	Balkh	Mazar	11.0	21.0	28.9	37.9	46.8	37.6	51.5	16.0	45.5	61.5	47.0	13.5	468	76	157	162	100	36
North East	Baghlan	Baghlan	24.0	23.0	41.3	41.8	84.1	75.2	26.2	14.8	43.8	83.2	63.6	64.0	109	64	106	199	76	85
North East	Kunduz	Kunduz	26.0	36.0	50.5	56.9	69.2	40.7	34.3	24.7	37.6	75.6	84.0	20.0	132	69	74	133	121	49
North East	Takhar	Taluqan	0.0	0.0	77.8	78.1	131.1	119.3	35.0	40.0	50.0	73.5	55.5	91.0	>100	>100	64	94	42	76
North East	Badakshan	Faiz Abad	29.0	32.0	45.5	63.0	98.2	99.2	66.0	28.0	48.5	71.0	53.0	68.0	228	88	107	113	54	69
West	Herat	Herat	9.0	9.0	49.6	39.0	49.9	33.6	25.0	0.0	30.0	64.0	5.0	34.0	278	0	60	164	10	101
West	Farah	Farah	3.0	3.0	22.2	24.8	25.3	10.1	3.0	0.0	24.0	49.5	2.5	16.0	100	0	108	200	10	158
Central	Kabul	Darul Aman	1.4	0.0	40.5	71.5	64.3	56.2	20.1	0.0	48.0	53.9	48.2	49.6	1,436	100	119	75	75	88
Central	Kabul	Kabul	11.0	25.0	33.1	58.6	63.9	83.2	91.7	0.0	41.6	83.2	40.0	54.9	834	0	126	142	63	66
Central	Kabul	Paghman	43.0	52.0	62.1	68.5	80.9	83.1	38.0	0.0	40.0	78.0	48.0	119.0	88	0	64	114	59	143
Central	Kabul	Sarobi	15.0	29.0	44.4	54.9	46.5	55.1	5.3	0.0	35.0	81.4	23.0	64.0	35	0	79	148	49	116
Central	Parwan	Jabul Seraj	22.0	36.0	65.3	88.2	98.3	113.6	59.0	0.0	60.0	33.0	42.0	49.0	268	0	92	37	43	43
Central	Logar	Logar	9.0	20.0	34.4	34.9	44.3	50.0	14.6	0.0	41.9	38.3	5.3	69.1	162	0	122	110	12	138
South	Paktya	Gardiz	11.0	11.0	40.4	70.8	65.9	74.2	33.0	0.0	29.5	48.5	28.0	36.0	300	0	73	69	42	49
South	Ghazni	Ghazni	11.0	11.0	37.9	36.4	42.4	47.4	10.0	0.0	19.0	34.0	6.0	113.0	91	0	50	93	14	238
East	Nangharhar	Ghaziabad	0.0	4.6	12.9	25.1	37.7	56.3	13.0	0.0	33.0	32.0	27.0	68.0	>100	0	256	127	72	121
East	Nangharhar	Jalalabad	8.0	16.0	17.3	24.8	63.2	33.0	3.0	0.0	23.0	35.0	35.0	89.0	38	0	133	141	55	270
South West	Kandahar	Kandahar	6.0	6.0	49.1	35.1	26.3	13.6	9.0	0.0	40.5	142.5	0.0	15.5	150	0	82	406	0	114

**Sources:**

MAIL/USGS Project located at MAIL  
Consolidated table prepared at MAIL

Annex 2: Wheat seed produced by the FAO Seed Project (2009-2011)

SN	Variety	Breeder Seed (tonnes)			Foundation Seed (tonnes)			Registered Seed (tonnes)				Certified Seed (tonnes)		
		2009	2010	2011	2009	2010	2011	2009	2010	2011	Total	2009	2010	2011
1	MH-96											80		
2	Hera-99	8.301	9.000		210.05	122.80	40.000		336.24	191.40	527.64	570	3,582	4,310
3	Balkh-66													
4	Mazar 99	7.278	9.134	4.895	156.01	75.65	85.739		210.22	184.00	394.22	984	1,261	3,181
5	Gul 96	5.395	6.172	1.919	171.74	34.00	24.000		206.82	78.00	284.82	300	2,455	3,019
6	Ghori-96	8.205	9.575	1.520	122.35	79.00	75.905		232.20	195.20	427.40	1,167	1,496	2,596
7	Lalmi-1											200		
8	Lalmi-2	5.900	4.571	4.100	111.79	21.25	7.500		181.52	46.00	227.52	955	1,379	1,066
9	Lalmi-3	4.718	3.600	2.300	100.15	35.70	51.200		23.18	12.00	35.18	882	2,254	536
10	Divma-96	0.890			2.56							100	13	
11	Sn'b	1.521	1.665		33.41	9.35			22.78	50.00	72.78	160	505	5
12	Cham-6											123		
13	Rona-96			0.900		10.00				0.70	0.70	453		34
14	Pamir-94	0.691	0.250	0.272	31.76	1.50			7.00		7.00	640	477	
15	Roshan-96	3.109										881		
16	Amu-99	3.764			106.70							402	11	
17	Parva-2	2.240	2.283	1.290	18.80	12.75						376	422	55
18	Solh-2	4.961	6.529	3.287	43.30	29.75			67.30	35.00	102.30	470	571	980
19	PBW-154	8.657	11.288	8.860	234.48	51.85	185.035		388.15	109.00	497.15	2,734	3,490	3,984
20	HUW-234													
21	HD-2285	1.579			34.40							1,432		
22	Bakhtawar-92	4.424	2.355		42.50	30.00				84.50	84.50	19	165	131
23	Mayson													
24	Kouz/AA/Kouz													
25	FDL/NG8695													
26	Pastor													
27	Ghazna-97											20		
28	4/Cit													
29	UREs/PRC													
30	IRENA/Weaver	1.900	2.480	0.240					13.00		13.00			89
31	WEBBL-1													
32	Takhar-96													
33	Darullaman-07		0.806	2.650			7.433							
34	Ariana-07		1.584											
35	Dorkhshan-08	8.487	8.573	3.450		120.50	34.500		0.70	311.90	312.60			1,801
36	Shesham Bagh-08	4.980	5.819	4.850		69.30	54.688		0.40	159.70	160.10			305
37	Baghlan-09			8.722			58.228			16.00	16.00			
38	Moqawem-09		11.820	12.961			138.374		13.80	118.00	131.80			2,044
39	Kushan-09		6.728											
<b>Total</b>		<b>87.000</b>	<b>104.232</b>	<b>62.216</b>	<b>1420.00</b>	<b>703.40</b>	<b>762.602</b>		<b>1703.31</b>	<b>1591.40</b>	<b>3294.71</b>	<b>12,948</b>	<b>18,081</b>	<b>24,136</b>

Source: FAO Seed Project

### Annex 3a: Irrigation projects' Development, improvement and rehabilitation Report (AFG/390497)

No	Project name and location			Winner firm	Contract cost (Afg)	letter issuance date to start work	Started	Ended	Current status	Remarks
	Project name	Province	District							
1	Rehabilitation of 22 watershed in Qatma	Takhar	Taleqan	Nawzar	2,439,848	7-Oct-10	6-Nov-10	29-Oct-11	Work progress 100%	Completed and under utilization
2	Construction of intake in Istalef	Kabul	Estalif	Rahguzar	2,714,020	18-Aug-10	23-Sep-10	26-Nov-10	Work progress 100%	Completed and under utilization
3	Water transmission from Khurd Kabul spring	Kabul	Khakjabar	Rahguzar	1,402,490	11-Apr-10	11-May-10	6-Aug-10	Work progress 54%	
4	2nd contract of Khurd Kabul spring water transmission	Kabul	Khakjabar	Rahguzar	6,951,976	1-Feb-11	5-Feb-11	28-Dec-11	Work progress 100%	Completed and under utilization
5	Rehabilitation of Hermel intake	Laghman	Mehtarlam Baba	Najib Lemar	1,881,480	30-Nov-10	5-Feb-11	15-May-11	Work progress 100%	Completed and under utilization
6	Construction project of Shah Mati intake	Laghman	Qarghayee	Sabur Mashuq	4,497,708	2-Sep-10	6-Oct-10	25-Mar-11	Work progress 60%	100% completed
7	Building Gawsang intake	Kabul	Mirbacha kot	Usman Akbar	11,915,531	5-Jun-11	20-Jun-11	7-Oct-11	40%	80% completed
8	Dam building project in Chandalbayee	Kabul	Paghman	Khalid Bashir	10,215,746	16-Apr-11	17-Apr-11	19-Nov-11	Work progress 100%	Completed and under utilization
9	Building concrete canal intake and retaining wall of down village	Kabul	Farza	Sadat Hashimi Totakhil	9,709,658	10-Sep-11	25-Sep-11	9-Jan-12	Work completed 80%	
10	Rehabilitaion of 16 Karezes	Ghazni	Jaghori	Arzhang	24,139,188	22-Nov-10	5-Dec-10	9-Aug-11	Work progress 80%	Request to stop work
11	Building intake and canal joybakhshi	Parwan	Jabulseraj	Dawoud shah Rahimi	5,346,148	12-Apr-11	9-Apr-11	14-Jul-11	81% bill prepared	100% completed
12	Building canal and intake of Abdara village	Panjshir	Unaba	Jami Pamir	4,149,828	20-Mar-11	31-Mar-11	5-Jul-11	Work progress 79.60%	Completed and under utilization
13	Building lining Mir stream of Dashtak village	Panjshir	Unaba	Azmati Hashimi	20,611,716	6-Aug-11	20-Aug-11	16-Nov-11	Completed 48%	Work 81% completed
14	Building Shir Ahmadi intake and canal	Nangarhar	Surkhroad	Asmat Jabarkhil	7,751,345		26-Dec-11		Progress 10%	10% completed
15	Building Deh Asl intake	Samangan	Khuram wa sarbagh							sent to procurement process
16	Watershed system project in Marghab village	Jawzjan	Marghab							sent to procurement process
17	Repairing Safdari intakes and canal in Kamah district	Nangarhar	Kama	Tawheed Afghan	1,221,952	4-Oct-11	18-Oct-11	16-Jan-12	Completed 100%	Completed and under utilization

**Annex 3a: Irrigation projects' Development, improvement and rehabilitation Report (AFG/390497)**

No	Project name and location			Winner firm	Contract cost (Afg)	letter issuance date to start work	Started	Ended	Current status	Remarks
	Project name	Province	District							
18	Bila Yari intake in Kama district	Nangarhar	Kama	Tawheed Afghan	5,040,992	15-Nov-11	29-Nov-11	10-May-12	Completed 100%	Completed and under utilization
19	Building Nawroz Bagh intake in Mirbachakot district	Kabul	Mirbacha kot	Bahar Kapisa	3,992,578	25-Sep-11	9-Oct-11	24-Dec-11	Progress 40%	Field work going on
20	Building Klor payeen two intakes in Samangan districts	Samangan	Khuram wa sarbagh	Babalar	2,804,996	4-Oct-11	20-Oct-11	1-Feb-12		Stopped due to people created problems
21	Building Gamandi intake in Ghorband district-Parwan	Parwan	Ghorband	Ahmad Shah Khairkhwah	7,667,608	26-Sep-11	6-Oct-11	4-Jul-12	Completed 40%	80% completed

### Annex 3b: Emergency Irrigation Projects

No	Project name and location			Winner firm	Contract cost (Af\$)	Letter issuance date to start work	Started	Ended	Current status	Remarks
	Project name	Province	District							
1	Building Mirzayan intake	Nangarhar	Surkhroad	Khugiany Union	6,567,197	5-Jul-11	19-Jul-11	31-Dec-11	100% completed	Completed and under utilization
2	Building Washganda Spring	Nangarhar	District-5	Abdullah Ershad	857,582	4-May-11	18-May-11	1-Aug-11	100% completed	Completed and under utilization
3	Building Charahar canal Sayfoon	Nangarhar	Chaprahar	Kamangar	6,120,014	5-Jul-11	19-Jul-11	15-Jan-12	100% completed	Completed and under utilization
4	Building Saufoon No. 2nd	Nangarhar	Batikut	Abas Mamoon	2,822,973	18-May-11	31-May-11	19-Aug-11	80% completed	80% completed
5	Sayfoon Kotkhor	Nangarhar	Batikut	Dawoud shah Rahimi	3,732,679	19-Jun-11	3-Jul-11	17-Apr-12		Completed

### Annex 3c: Irrigation and water reservoir project (AFG/390676)

No	Project name and location			Winner firm	Contract cost (Afg)	letter issuance date to start work	Started	Ended	Current status	Remarks
	Project name	Province	District							
1	Building Mutakhil dam	Kabul	Farzah							To procurement department
2	Building Dawrankhil dam	Kabul	Khak-e-jabar							To procurement department
3	Building water reservoir	Kabul	Qargha dam							To procurement department
4	Cleaning Khwaha chasht canal	Kabul	Deh Sabz							To procurement department
5	Cleaning Ajmir canal	Kabul	Deh Sabz							To procurement department
6	Building Mayami canal	Badakhshan	Maymi							To procurement department
7	Building Modaba water reservoir	Badakhshan	Keshm							Procurement process in respective province
8	Building Jurm water reservoir	Badakhshan	Jerm							Procurement process in respective province
9	Building Baribar water reservoir	Nangarhar	Khugiani							
10	Building water reservoir	Hirat	Babaserq							
11	Building Tangizard water reservoir	Hirat	Center							
12	Building Waigularam water reservoir	Laghman	Mehtarlam Baba							
13	Building water reservoir	Sar-e-pul	Suzma qala							
14	Building Pala water reservoir	Sar-e-pul	Gosfandi							
15	Building water reservoir	Takhar	Bangi							
16	Building Mirquwat water reservoir	Takhar	Shkamish							

### Annex 3c: Irrigation and water reservoir project (AFG/390676)

No	Project name and location			Winner firm	Contract cost (Afg)	letter issuance date to start work	Started	Ended	Current status	Remarks
	Project name	Province	District							
17	Building water reservoir	Different districts	Different districts							
18	Building water reservoir	Baghlan	Pulkhumri							
19	Building water reservoir	Kunduz	Different districts							
20	Building water reservoir	Kunduz	Khanabad							
21	Building water reservoir	Faryab	Different districts							
22	Building water reservoir	Logar	Different districts							
23	Building water reservoir	Maidan Wardak	Center							
24	Building Chakdamha	Zabul	Different							
25	Building water reservoir	Paktia	Center							
26	Building Qachndara water reservoir	Samangan	Center							
27	Building water reservoir	Jawzjan	Different districts							

**Annex 4: Area and production of wheat in 2012 by province (Provisional Estimates; end-May 2012)**

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)
<b>NORTH</b>	<b>213</b>	<b>2.70</b>	<b>575</b>	<b>618</b>	<b>1.26</b>	<b>777</b>	<b>831</b>	<b>1.63</b>	<b>1,352</b>
Faryab	33	2.67	88	172	1.40	241	205	1.61	329
Juzjan	55	2.70	149	134	1.40	187	189	1.78	336
Sar-i-Pul	25	3.04	76	71	1.20	85	96	1.67	161
Balkh	87	2.63	229	118	1.40	165	205	1.92	394
Samangan	13	2.56	33	123	0.80	99	136	0.97	132
<b>NORTH-EAST</b>	<b>227</b>	<b>3.12</b>	<b>709</b>	<b>397</b>	<b>1.05</b>	<b>417</b>	<b>624</b>	<b>1.80</b>	<b>1,126</b>
Bughlan	50	2.95	148	60	0.88	53	110	1.82	201
Kunduz	85	3.50	298	36	1.10	39	121	2.80	337
Takhar	64	3.20	205	163	1.32	215	227	1.85	420
Badakhshan	28	2.06	58	138	0.80	110	166	1.01	168
<b>WEST</b>	<b>135</b>	<b>2.60</b>	<b>351</b>	<b>213</b>	<b>0.90</b>	<b>193</b>	<b>348</b>	<b>1.56</b>	<b>544</b>
Herat	90	2.56	230	134	0.62	83	224	1.40	313
Farah	26	2.63	68				26	2.62	68
Badghis	19	2.80	53	79	1.39	110	98	1.66	163
<b>WEST-CENTRAL</b>	<b>36</b>	<b>2.39</b>	<b>86</b>	<b>53</b>	<b>1.14</b>	<b>60</b>	<b>89</b>	<b>1.65</b>	<b>146</b>
Ghor	24	2.60	62	42	1.26	53	66	1.75	115
Bamyan	12	2.00	24	11	0.62	7	23	1.35	31
<b>CENTRAL</b>	<b>125</b>	<b>2.63</b>	<b>329</b>	<b>28</b>	<b>0.89</b>	<b>25</b>	<b>153</b>	<b>2.31</b>	<b>354</b>
Kabul	24	2.39	57	1	0.74	1	25	2.32	58
Parwan	26	2.58	67	8	1.06	9	34	2.21	76
Panjsher	7	2.24	16	2	0.54	1	9	1.89	17
Kapisa	14	2.38	33	1	0.68	1	15	2.26	34
Logar	27	2.95	80	5	0.47	2	32	2.54	82
Wardak	27	2.83	76	11	1.00	11	38	2.32	87
<b>SOUTH</b>	<b>107</b>	<b>3.24</b>	<b>347</b>	<b>13</b>	<b>0.63</b>	<b>8</b>	<b>120</b>	<b>2.97</b>	<b>355</b>
Paktya	20	3.50	70	1	0.62	1	21	3.35	71
Paktika	15	4.13	62	6	0.57	4	21	3.11	66
Khost	14	4.12	58	1	1.00	1	15	3.89	59
Ghazni	58	2.71	157	4	0.47	2	62	2.56	159
<b>EAST</b>	<b>111</b>	<b>3.97</b>	<b>441</b>	<b>7</b>	<b>0.57</b>	<b>4</b>	<b>118</b>	<b>3.77</b>	<b>445</b>
Nangarhar	77	4.17	321				77	4.17	321
Laghman	14	3.60	50				14	3.57	50
Kunarha	14	3.87	54	6	0.53	3	20	2.85	57
Nooristan	6	2.60	16	1	0.75	1	7	2.43	17
<b>SOUTH-WEST</b>	<b>213</b>	<b>3.15</b>	<b>672</b>	<b>17</b>	<b>0.83</b>	<b>14</b>	<b>230</b>	<b>2.99</b>	<b>686</b>
Kandahar	41	3.50	144	1	0.60	1	42	3.46	145
Helmand	98	3.65	358				98	3.65	358
Zabul	21	2.35	49	6	0.77	4	27	1.98	53
Nimroz	17	2.23	38	1	0.63	1	18	2.17	39
Uruzgan	26	2.35	61	2	0.77	2	28	2.25	63
Daikunde	10	2.23	22	7	0.88	6	17	1.63	28
<b>AFGHANISTAN</b>	<b>1,167</b>	<b>3.01</b>	<b>3,510</b>	<b>1,345</b>	<b>1.11</b>	<b>1,498</b>	<b>2,512</b>	<b>1.99</b>	<b>5,008</b>

Annex 5: Wheat balance in MY 2012/13 by province (Preliminary estimates)

REGION Province	Settled population ('000 no.)	Irrigated wheat area forecast 2013 harvest ('000 ha.)	Rainfed wheat area forecast 2013 harvest ('000 ha.)	Production ('000 tons)	Requirement			Surplus or Deficit ('000 tons)
					Human consumption ('000 tons)	Seed ('000 tons)	Post harvest Losses ('000 tons)	
<b>NORTH</b>	<b>3,606.0</b>	<b>213</b>	<b>618</b>	<b>1,352</b>	<b>576.9</b>	<b>88.5</b>	<b>202.9</b>	<b>483.7</b>
Faryab	948.0	33	172	329	151.7	20.0	49.4	107.9
Juzjan	512.1	55	134	336	81.9	20.7	50.4	183.0
Sar-i-Pul	532.0	25	71	161	85.1	10.3	24.2	41.4
Balkh	1,245.1	87	118	394	199.2	25.0	59.1	110.7
Samangan	368.8	13	123	132	59.0	12.5	19.8	40.7
<b>NORTH-EAST</b>	<b>3,655.9</b>	<b>227</b>	<b>397</b>	<b>1,126</b>	<b>585.0</b>	<b>72.7</b>	<b>169.0</b>	<b>299.3</b>
Bughlan	863.7	50	60	201	138.2	13.8	30.2	18.8
Kunduz	953.8	85	36	337	152.6	17.8	50.6	116.0
Takhar	933.7	64	163	420	149.4	24.7	63.0	182.9
Badakhshan	904.7	28	138	168	144.8	16.4	25.2	-18.4
<b>WEST</b>	<b>2,734.3</b>	<b>135</b>	<b>213</b>	<b>544</b>	<b>437.5</b>	<b>41.4</b>	<b>81.7</b>	<b>-16.6</b>
Herat	1,780.0	90	134	313	284.8	26.9	47.0	-45.7
Farah	482.4	26		68	77.2	4.6	10.2	-24.0
Badghis	471.9	19	79	163	75.5	9.9	24.5	53.1
<b>WEST-CENTRAL</b>	<b>1,082.7</b>	<b>36</b>	<b>53</b>	<b>146</b>	<b>173.3</b>	<b>10.7</b>	<b>22.0</b>	<b>-60.0</b>
Ghor	657.2	24	42	115	105.2	7.7	17.3	-15.2
Bamyan	425.5	12	11	31	68.1	3.0	4.7	-44.8
<b>CENTRAL</b>	<b>6,088.5</b>	<b>125</b>	<b>28</b>	<b>354</b>	<b>974.2</b>	<b>24.2</b>	<b>53.2</b>	<b>-697.6</b>
Kabul	3,950.3	24	1	58	632.0	4.3	8.7	-587.0
Parwan	631.6	26	8	76	101.1	5.2	11.4	-41.7
Panjsher	146.1	7	2	17	23.4	1.4	2.6	-10.4
Kapisa	419.8	14	1	34	67.2	2.5	5.1	-40.8
Logar	373.1	27	5	82	59.7	5.2	12.3	4.8
Wardak	567.6	27	11	87	90.8	5.6	13.1	-22.5
<b>SOUTH</b>	<b>2,654.4</b>	<b>107</b>	<b>13</b>	<b>355</b>	<b>424.7</b>	<b>19.7</b>	<b>53.4</b>	<b>-142.8</b>
Paktya	525.0	20	1	71	84.0	3.6	10.7	-27.3
Paktika	413.8	15	6	66	66.2	3.1	9.9	-13.2
Khost	546.8	14	1	59	87.5	2.5	8.9	-39.9
Ghazni	1,168.8	58	4	159	187.0	10.5	23.9	-62.4
<b>EAST</b>	<b>2,429.8</b>	<b>111</b>	<b>7</b>	<b>445</b>	<b>388.8</b>	<b>20.0</b>	<b>66.9</b>	<b>-30.7</b>
Nangarhar	1,436.0	77		321	229.8	13.5	48.2	29.5
Laghman	424.1	14		50	67.9	2.5	7.5	-27.9
Kunarha	428.8	14	6	57	68.6	2.9	8.6	-23.1
Nooristan	140.9	6	1	17	22.5	1.1	2.6	-9.2
<b>SOUTH-WEST</b>	<b>3,248.5</b>	<b>213</b>	<b>17</b>	<b>686</b>	<b>519.9</b>	<b>38.7</b>	<b>103.1</b>	<b>24.3</b>
Kandahar	1,151.1	41	1	145	184.2	7.2	21.8	-68.2
Helmand	879.5	98		358	140.7	17.2	53.7	146.4
Zabul	289.3	21	6	53	46.3	4.2	8.0	-5.5
Nimroz	156.6	17	1	39	25.1	3.1	5.9	4.9
Uruzgan	333.5	26	2	63	53.4	4.7	9.5	-4.6
Daikunde	438.5	10	7	28	70.2	2.3	4.2	-48.7
<b>Total for settled</b>	<b>25,500.1</b>	<b>1167</b>	<b>1,345</b>	<b>5008</b>	<b>4,080.3</b>	<b>315.9</b>	<b>752.2</b>	<b>-140.4</b>
<b>Nomads</b>	<b>1,761.0</b>				<b>281.8</b>			<b>-281.8</b>
<b>Overall consumers</b>	<b>27,261.1</b>	<b>1,167.0</b>	<b>1,345.3</b>	<b>5,008.0</b>	<b>4,362.1</b>	<b>315.9</b>	<b>752.2</b>	<b>-422.2</b>

**Sources:**

Settled population in 2012: CSO

Nomads in 2012: Projected figure

**Annex 6: Production, requirements and surplus/deficit of Cereals in 2012**  
(Preliminary Estimates)

Crop	Consumption units	Area	Production	Yield	Seed-rate	Required for human consumption	Required for				Total required	Surplus/ Deficit
	('000 no.)	('000 ha)	('000 t)		(kg/ha)	(kg/person)	Food ('000 t)	Seed ('000 t)	Feed ('000 t)	Loss ('000 t)	('000 t)	('000 t)
	(1)	(2)	(3)	(4)=(3)/(2)	(5)	(6)	(7)=(1)x(6)	(8)=(2)x(5)	(9)	(10)	(11)=(7)+(8)+(9)+(10)	(12)=(11)-(3)
Irrigated wheat	27,261.1 (See Annex 4)	1,167	3,510	3.01	175			204		527		
Rainfed wheat		1,345	1,498	1.11	83			112		225		
<b>All wheat</b>		<b>2,512</b>	<b>5,008</b>	<b>1.99</b>	<b>126</b>	<b>160</b>	<b>4,362</b>	<b>316</b>		<b>752</b>	<b>5,430</b>	<b>-422</b>
Milled rice		205	500	2.44	105	17	463	22		35	520	-20
Maize		141	310	2.20	60	2	55	8	200	47	310	
Barley		280	505	1.80	110	1	27	45	357	76	505	
<b>All cereals</b>		<b>3,138</b>	<b>6,323</b>	<b>2.01</b>		<b>180</b>	<b>4,907</b>	<b>391</b>	<b>557</b>	<b>910</b>	<b>6,765</b>	<b>-442</b>

Extraction-rate from paddy to rice = 67%; paddy yield is estimated at 3.64 t/ha

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

Annex 7a: Districts in Afghanistan (Source: CSO)

SN	Dcode4	PN	PND	DND	PNE	DNE	HHD
1	0101	1	کابل	مرکز کابل- کابل	KABUL	Provincial Center Of Kabul (Kabul)	313,136
2	0102	1	کابل	ده سبز	KABUL	Dehsabz	7,297
3	0103	1	کابل	میر بچه کوت	KABUL	Mir Bacha Kot	5,106
4	0104	1	کابل	کلکان	KABUL	Kalakan	2,784
5	0105	1	کابل	قره باغ	KABUL	Qara Bagh	7,891
6	0106	1	کابل	فرزه	KABUL	Farza	2,600
7	0107	1	کابل	استالف	KABUL	Estalef	2,674
8	0108	1	کابل	گلدره	KABUL	Guldara	2,281
9	0109	1	کابل	شکر دره	KABUL	Shakar Dara	8,641
10	0110	1	کابل	پغمان	KABUL	Paghman	14,027
11	0111	1	کابل	چهار آسیاب	KABUL	Chahar Asyab	3,662
12	0112	1	کابل	موسنی	KABUL	Musahi	2,574
13	0113	1	کابل	خاک جبار	KABUL	Khak-I-Jabar	1,251
14	0114	1	کابل	بگرامی	KABUL	Bagrami	11,099
15	0115	1	کابل	سروبی	KABUL	Surubi	7,250
16	0201	2	کاپیسا	مرکز کاپیسا - محمود راقی	KAPISA	Provincial Center of Kapisa (Mahmood Raqi )	6,855
17	0202	2	کاپیسا	حصه دوم کو هستان	KAPISA	Hissa-I-Duwumi Kohistan	6,770
18	0203	2	کاپیسا	حصه اول کو هستان	KAPISA	Hissa-I-Awal Kohistan	7,197
19	0204	2	کاپیسا	نجراب	KAPISA	Nijrab	12,294
20	0205	2	کاپیسا	کوه بند	KAPISA	Koh Band	3,042
21	0206	2	کاپیسا	تگاب	KAPISA	Tagab	10,477
22	0207	2	کاپیسا	اله ساي	KAPISA	Alasai	5,159
23	0301	3	پروان	مرکز پروان- چاریکار	PARWAN	Provincial Center of Parwan (Charikar )	20,084
24	0302	3	پروان	سید خیل	PARWAN	Sayyid Khel	5,385
25	0303	3	پروان	جبل السراج	PARWAN	Jabulussaraj	7,638
26	0304	3	پروان	سالنگ	PARWAN	Salang	3,132
27	0305	3	پروان	شینواری	PARWAN	Shinwari	5,306
28	0306	3	پروان	سیاه گرد (غور بند)	PARWAN	Syahgird (Ghorband)	10,594
29	0307	3	پروان	بگرام	PARWAN	Bagram	11,570
30	0308	3	پروان	کوه صافی	PARWAN	Koh-I-Safi	2,276
31	0309	3	پروان	شیخ علی	PARWAN	Shaykh Ali	3,055
32	0310	3	پروان	سرخ پارساء	PARWAN	Surkhi Parsa	4,283
33	0401	4	وردک	مرکز وردک - میدان شهر	WARDAK	Provincial Center Of Wardak ( Maidan Shahr )	5,332
34	0402	4	وردک	جلریز	WARDAK	Jalrez	7,063
35	0403	4	وردک	حصه اول بهسود	WARDAK	Hissa-I- Awal Behsud	4,315
36	0404	4	وردک	مرکز بهسود	WARDAK	Markaz-I-Behsud	16,228
37	0405	4	وردک	دایمیرداد	WARDAK	Daimirdad	3,610
38	0406	4	وردک	جغتو	WARDAK	Jaghata	7,536
39	0407	4	وردک	چک وردک	WARDAK	Chak-I-Wardak	13,083
40	0408	4	وردک	سیدآباد	WARDAK	Sayyidabad	18,581
41	0409	4	وردک	نرخ	WARDAK	Nerkh	8,483
42	0501	5	لوگر	مرکز لوگر- پل علم	LOGAR	Provincial Center of Logar ( Puli Alam )	12,719
43	0502	5	لوگر	برکی برک	LOGAR	Baraki Barak	11,289
44	0503	5	لوگر	چرخ	LOGAR	Charkh	5,378
45	0504	5	لوگر	خوشی	LOGAR	Khushi	2,255
46	0505	5	لوگر	محمد آغه	LOGAR	Mohammad Agha	8,317
47	0506	5	لوگر	خروار	LOGAR	Khar War	3,155
48	0507	5	لوگر	ازره	LOGAR	Azra	2,026

Annex 7a: Districts in Afghanistan (Source: CSO)

SN	Dcode4	PN	PND	DND	PNE	DNE	HHD
49	0601	6	غزنی	مرکز غزنی - غزنی	GHAZNI	Provincial Center of Ghazni ( Ghazni)	24,859
50	0602	6	غزنی	ده یک	GHAZNI	Deh Yak	6,275
51	0603	6	غزنی	زنخان	GHAZNI	Zanakhani	2,870
52	0604	6	غزنی	خواجه عمری	GHAZNI	Khwaja Omari	2,423
53	0605	6	غزنی	رشیدان	GHAZNI	Rashidan	2,213
54	0606	6	غزنی	ولی محمد شهید خوگیانی	GHAZNI	Wali Mohammad Shahid Khugyani	2,530
55	0607	6	غزنی	جغتو	GHAZNI	Jaghata	4,611
56	0608	6	غزنی	واغظ	GHAZNI	Waghaz	5,856
57	0609	6	غزنی	قره باغ	GHAZNI	Qara Bagh	21,573
58	0610	6	غزنی	گیرو	GHAZNI	Giro	5,922
59	0611	6	غزنی	اندر	GHAZNI	Andar	19,191
60	0612	6	غزنی	ناور	GHAZNI	Nawur	13,994
61	0613	6	غزنی	اجرستان	GHAZNI	Ajristan	3,068
62	0614	6	غزنی	مالستان	GHAZNI	Malistan	11,519
63	0615	6	غزنی	جاغوری	GHAZNI	Jaghuri	25,071
64	0616	6	غزنی	مقر	GHAZNI	Muqur	7,070
65	0617	6	غزنی	آب بند	GHAZNI	Ab Band	4,062
66	0618	6	غزنی	گیلان	GHAZNI	Gelan	6,799
67	0619	6	غزنی	ناره	GHAZNI	Nawa	834
68	0701	7	پکتیکا	مرکز پکتیکا - شرن	PAKTIKA	Provincial Center of Paktika ( Sharan )	7,480
69	0702	7	پکتیکا	مٹاخان	PAKTIKA	Mata Khan	3,205
70	0703	7	پکتیکا	یوسف خیل	PAKTIKA	Yosuf Khel	5,859
71	0704	7	پکتیکا	یحیی خیل	PAKTIKA	Yahya Khel	4,575
72	0705	7	پکتیکا	اومنه	PAKTIKA	Omna	3,754
73	0706	7	پکتیکا	سرروضه	PAKTIKA	Sar Rawza	5,629
74	0707	7	پکتیکا	زرغون شهر	PAKTIKA	Zarghun Shahr	5,968
75	0708	7	پکتیکا	جانی خیل	PAKTIKA	Jani Khel	5,458
76	0709	7	پکتیکا	گومل	PAKTIKA	Gomal	8,547
77	0710	7	پکتیکا	سروبی	PAKTIKA	Surubi	7,418
78	0711	7	پکتیکا	ارگون	PAKTIKA	Urgoon	12,569
79	0712	7	پکتیکا	زیروک	PAKTIKA	Ziruk	4,631
80	0713	7	پکتیکا	نیکه	PAKTIKA	Nika	2,247
81	0714	7	پکتیکا	دیلہ و خوشامند	PAKTIKA	Dila Wa Khushamand	7,448
82	0715	7	پکتیکا	وازه خواه	PAKTIKA	Wazakhwah	7,846
83	0716	7	پکتیکا	تروو	PAKTIKA	Turwo	2,366
84	0717	7	پکتیکا	ورمی	PAKTIKA	Wor Mamay	4,218
85	0718	7	پکتیکا	برمل	PAKTIKA	Barmal	11,305
86	0719	7	پکتیکا	گیان	PAKTIKA	Giyan	5,705
87	0801	8	پکتیکا	مرکز پکتیکا - گردیز	PAKTYA	Provincial Center of Paktya ( Gardez )	9,622
88	0802	8	پکتیکا	سید کرم	PAKTYA	Sayyid Karam	6,716
89	0803	8	پکتیکا	زرمات	PAKTYA	Zurmat	13,330
90	0804	8	پکتیکا	شوآک	PAKTYA	Shwak	363
91	0805	8	پکتیکا	وزہ خدران	PAKTYA	Wuza Jadran	5,802
92	0806	8	پکتیکا	لجه احمد خیل	PAKTYA	Laja Ahmad Khel	6,651
93	0807	8	پکتیکا	جانی خیل	PAKTYA	Jani Khel	5,336
94	0808	8	پکتیکا	دند پتان	PAKTYA	Dand Patan	4,001
95	0809	8	پکتیکا	حمکنی	PAKTYA	Samkani	8,938
96	0810	8	پکتیکا	جاجی	PAKTYA	Jaji	8,368
97	0811	8	پکتیکا	احمداباء	PAKTYA	Ahmadaba	5,182

Annex 7a: Districts in Afghanistan (Source: CSO)

SN	Dcode4	PN	PND	DND	PNE	DNE	HHD
98	0901	9	خوست	مرکز خوست - خوست	KHOST	Provincial Center of Khost (Khost )	19,518
99	0902	9	خوست	علیشیر	KHOST	Ali Sher	7,922
100	0903	9	خوست	باک	KHOST	Baak	3,854
101	0904	9	خوست	جاجی میدان	KHOST	Jaji Maidan	3,582
102	0905	9	خوست	صبری (یعقوبی)	KHOST	Sabari (Yaqubi)	12,659
103	0906	9	خوست	موسی خیل	KHOST	Musa Khel	5,297
104	0907	9	خوست	قلندر	KHOST	Qalandar	1,620
105	0908	9	خوست	نادر شاه کوت	KHOST	Nadirshah Kot	5,248
106	0909	9	خوست	مندوزی (اسمعیل خیل)	KHOST	Manduzay (Esmayel Khel )	9,725
107	0910	9	خوست	شمل	KHOST	Shamul	2,180
108	0911	9	خوست	سپیره	KHOST	Spera	4,688
109	0912	9	خوست	تنی	KHOST	Tanay	9,892
110	0913	9	خوست	گربز	KHOST	Gurbuz	3,274
111	1001	10	ننګرهار	مرکز ننګرهار - جلال آباد	NANGARHAR	Provincial Center Of Nangarhar ( Jalalabad )	31,289
112	1002	10	ننګرهار	بهسود	NANGARHAR	Behsud	18,417
113	1003	10	ننګرهار	سرخړود	NANGARHAR	Surkh Rud	13,234
114	1004	10	ننګرهار	چپرهار	NANGARHAR	Chaparhar	9,758
115	1005	10	ننګرهار	رودات	NANGARHAR	Rodat	9,681
116	1006	10	ننګرهار	کامه	NANGARHAR	Kama	8,518
117	1007	10	ننګرهار	کوزکنر	NANGARHAR	Kuzkunar	6,837
118	1008	10	ننګرهار	دره نور	NANGARHAR	Darah-I-Noor	4,399
119	1009	10	ننګرهار	شیرزاد	NANGARHAR	Sher Zad	10,069
120	1010	10	ننګرهار	حصارک	NANGARHAR	Hesarak	4,535
121	1011	10	ننګرهار	خوگانی	NANGARHAR	Khugyani	17,886
122	1012	10	ننګرهار	چچيرواګام	NANGARHAR	Pachir Wagam	6,821
123	1013	10	ننګرهار	ده بالا	NANGARHAR	Deh Bala	5,640
124	1014	10	ننګرهار	کوت	NANGARHAR	Kot	8,347
125	1015	10	ننګرهار	اچین	NANGARHAR	Achin	16,913
126	1016	10	ننګرهار	نازیان	NANGARHAR	Nazyan	2,818
127	1017	10	ننګرهار	دربابا	NANGARHAR	Dur Baba	2,398
128	1018	10	ننګرهار	شینوار	NANGARHAR	Shinwar	10,994
129	1019	10	ننګرهار	بتي کوت	NANGARHAR	Bati Kot	11,134
130	1020	10	ننګرهار	مهمندره	NANGARHAR	Muhmand Dara	6,192
131	1021	10	ننګرهار	ګوشته	NANGARHAR	Goshta	5,363
132	1022	10	ننګرهار	لعل پور	NANGARHAR	Lalpoor	2,982
133	1101	11	کنړها	مرکز کنړها - اسعدآباد	KUNARHA	Provincial Center of Kunarha ( Asad Abad )	4,295
134	1102	11	کنړها	وته پور	KUNARHA	Watapoor	4,764
135	1103	11	کنړها	دره پیچ	KUNARHA	Dara-I-Pech	7,358
136	1104	11	کنړها	نرنگ وبادیل	KUNARHA	Narang Wa Badil	4,861
137	1105	11	کنړها	سرکانی	KUNARHA	Sar Kani	4,051
138	1106	11	کنړها	مروړه	KUNARHA	Mara Wara	2,963
139	1107	11	کنړها	دانګام	KUNARHA	Dangam	2,931
140	1108	11	کنړها	برکنر	KUNARHA	Bar Kunar	3,253
141	1109	11	کنړها	شیکل وشلتن	KUNARHA	Shigal Wa Sheltan	5,671
142	1110	11	کنړها	چپه دره	KUNARHA	Chapa Dara	4,819
143	1111	11	کنړها	نورگل	KUNARHA	Noorgal	4,308
144	1112	11	کنړها	حوکي	KUNARHA	Sawkai	4,781
145	1113	11	کنړها	خاص کنړ	KUNARHA	Khas Kunar	5,360
146	1114	11	کنړها	نرئی	KUNARHA	Nari	4,848
147	1115	11	کنړها	غازی آباد	KUNARHA	Ghazi Abad	3,006
148	1201	12	لغمان	مرکز لغمان - مهترلام	LAGHMAN	Provincial Center Of Laghman ( Mehterlam )	16,844
149	1202	12	لغمان	قرغه ئی	LAGHMAN	Qarghayee	11,141
150	1203	12	لغمان	علینگار	LAGHMAN	Alingar	14,593
151	1204	12	لغمان	علیشنگ	LAGHMAN	Alishing	10,798
152	1205	12	لغمان	دولت شاه	LAGHMAN	Dawlat Shah	6,901

Annex 7a: Districts in Afghanistan (Source: CSO)

SN	Dcode4	PN	PND	DND	PNE	DNE	HHD
153	1301	13	نورستان	مرکز نورستان - پارون	NOORISTAN	Provincial Center Of Nooristan ( Paroon )	1,827
154	1302	13	نورستان	نورگرام	NOORISTAN	Noor Gram	2,357
155	1303	13	نورستان	نواب	NOORISTAN	Duab	1,091
156	1304	13	نورستان	وايگل	NOORISTAN	Waygal	3,489
157	1305	13	نورستان	واما	NOORISTAN	Wama	1,371
158	1306	13	نورستان	مندول	NOORISTAN	Mandol	2,252
159	1307	13	نورستان	کامدیش	NOORISTAN	Kamdesht	4,672
160	1308	13	نورستان	برگ متال	NOORISTAN	Bargi Matal	2,729
161	1401	14	بدخشان	مرکز بدخشان - فیض آباد	BADAKHSHAN	Provincial Center Of Badakhshan ( Faiz Abad )	9,371
162	1402	14	بدخشان	یفتل سفلی	BADAKHSHAN	Yafital -I-Sufila	8,145
163	1403	14	بدخشان	ارگو	BADAKHSHAN	Argo	15,958
164	1404	14	بدخشان	درایم	BADAKHSHAN	Darayim	6,468
165	1405	14	بدخشان	خاش	BADAKHSHAN	Khash	2,527
166	1406	14	بدخشان	جرم	BADAKHSHAN	Jurm	8,565
167	1407	14	بدخشان	وردوج	BADAKHSHAN	Wardooj	3,231
168	1408	14	بدخشان	بهارک	BADAKHSHAN	Baharak	5,252
169	1409	14	بدخشان	شهیدا	BADAKHSHAN	Shuhada	4,098
170	1410	14	بدخشان	کوهستان	BADAKHSHAN	Kohistan	3,153
171	1411	14	بدخشان	یوان	BADAKHSHAN	Yawan	4,993
172	1412	14	بدخشان	شهر بزرگ	BADAKHSHAN	Shahri Buzurg	8,059
173	1413	14	بدخشان	کشم	BADAKHSHAN	Kishm	12,142
174	1414	14	بدخشان	تگاب	BADAKHSHAN	Tagab	4,535
175	1415	14	بدخشان	تاشکان	BADAKHSHAN	Tashkan	4,917
176	1416	14	بدخشان	کران و منجان	BADAKHSHAN	Kiran Wa Menjan	1,607
177	1417	14	بدخشان	زیبک	BADAKHSHAN	Zebak	1,100
178	1418	14	بدخشان	اشکاشم	BADAKHSHAN	Eshkashim	2,143
179	1419	14	بدخشان	واخان	BADAKHSHAN	Wakhan	2,045
180	1420	14	بدخشان	شیغنان	BADAKHSHAN	Shighnan	2,962
181	1421	14	بدخشان	ارغنجخواه	BADAKHSHAN	Arghanj Khwah	2,304
182	1422	14	بدخشان	راغستان	BADAKHSHAN	Raghistan	5,093
183	1423	14	بدخشان	خواهان	BADAKHSHAN	Khwhahan	2,492
184	1424	14	بدخشان	کوف آب	BADAKHSHAN	Kufab	3,579
185	1425	14	بدخشان	یمگان	BADAKHSHAN	Yamgan	3,693
186	1426	14	بدخشان	درواز بالا (نسبی)	BADAKHSHAN	Darwaz-I- Bala (Nesay)	4,835
187	1427	14	بدخشان	درواز پائین (مامی)	BADAKHSHAN	Darwaz-I- Payin (Mamay)	3,437
188	1428	14	بدخشان	شکی	BADAKHSHAN	Shiki	3,393
189	1501	15	تخار	مرکز تخار - تالقان	TAKHAR	Provincial Center Of Takhar ( Taluqan )	29,333
190	1502	15	تخار	هزار سموچ	TAKHAR	Hazar Sumuch	1,665
191	1503	15	تخار	بهارک	TAKHAR	Baharak	6,865
192	1504	15	تخار	خواجه غار	TAKHAR	Khwaja Ghar	7,405
193	1505	15	تخار	بنگی	TAKHAR	Bangi	4,712
194	1506	15	تخار	اشکمش	TAKHAR	Eshkamesh	8,210
195	1507	15	تخار	چال	TAKHAR	Chal	4,315
196	1508	15	تخار	نمک آب	TAKHAR	Namak Ab	2,300
197	1509	15	تخار	فرخار	TAKHAR	Farkhar	6,631
198	1510	15	تخار	کلفگان	TAKHAR	Kalafgan	4,667
199	1511	15	تخار	رستاق	TAKHAR	Rustaq	24,038
200	1512	15	تخار	چاه آب	TAKHAR	Chahab	11,162
201	1513	15	تخار	بنگی قلعه	TAKHAR	Yangi Qala	6,524
202	1514	15	تخار	خواجه بهاول الدین	TAKHAR	Khwaja Bahawuddin	4,633
203	1515	15	تخار	درقد	TAKHAR	Darqad	4,353
204	1516	15	تخار	دشت قلعه	TAKHAR	Dashti Qala	5,863
205	1517	15	تخار	ورسج	TAKHAR	Warsaj	5,801

**Annex 7a: Districts in Afghanistan (Source: CSO)**

SN	Dcode4	PN	PND	DND	PNE	DNE	HHD
206	1601	16	یغلان	مرکز یغلان - پلخمری	BAGHLAN	Provincial Center Of Baghlan ( Pul-I-Khumri )	28,793
207	1602	16	یغلان	یغلان جید	BAGHLAN	Baghlan-I-Jadeed	17,692
208	1603	16	یغلان	دهنه غوری	BAGHLAN	Dahana-I-Ghuri	7,462
209	1604	16	یغلان	دوشی	BAGHLAN	Dushi	10,118
210	1605	16	یغلان	ختنجان	BAGHLAN	Khinjan	4,424
211	1606	16	یغلان	اندراب	BAGHLAN	Andarab	3,096
212	1607	16	یغلان	نهرین	BAGHLAN	Nahreen	9,613
213	1608	16	یغلان	برکه	BAGHLAN	Burka	6,998
214	1609	16	یغلان	تاله و برفک	BAGHLAN	Tala Wa Barfak	4,852
215	1610	16	یغلان	پل حصار	BAGHLAN	Pul-I-Hisar	3,676
216	1611	16	یغلان	ده صلاح	BAGHLAN	Deh Salah	4,534
217	1612	16	یغلان	جلگه	BAGHLAN	Jalga	4,446
218	1613	16	یغلان	خوست و فرنگ	BAGHLAN	Khost Wa Firing	8,974
219	1614	16	یغلان	فرنگ و غارو	BAGHLAN	Firing Wa Gharu	2,448
220	1615	16	یغلان	گنرگاه نور	BAGHLAN	Gozargah-I-Noor	1,710
221	1701	17	کنډز	مرکز کنډز - کنډز	KUNDUZ	Provincial Center Of Kunduz ( Kunduz )	33,664
222	1702	17	کنډز	حضرت امام صاحب	KUNDUZ	Hazrati Imam Sahib	30,878
223	1703	17	کنډز	قلعه ذال	KUNDUZ	Qala-I-Zal	7,812
224	1704	17	کنډز	چاردره	KUNDUZ	Char Darah	8,085
225	1705	17	کنډز	علی آباد	KUNDUZ	Ali Abad	5,316
226	1706	17	کنډز	خان آباد	KUNDUZ	Khan Abad	17,524
227	1707	17	کنډز	دشت ارچی	KUNDUZ	Dasht-I-Archi	9,162
228	1801	18	سمنگان	مرکز سمنگان - ایبک	SAMANGAN	Provincial Center Of Samangan ( Aybak )	12,629
229	1802	18	سمنگان	حضرت سلطان	SAMANGAN	Hazrat-I-Sultan	6,535
230	1803	18	سمنگان	فیروز نخچیر	SAMANGAN	Feroz Nakhcheer	2,075
231	1804	18	سمنگان	دره صوف بالا	SAMANGAN	Dara-I-Soof-I-Bala	8,931
232	1805	18	سمنگان	دره صوف پائین	SAMANGAN	Dara-I-Soof-I-Payin	10,517
233	1806	18	سمنگان	روی دواب	SAMANGAN	Roi-Do-Ab	7,328
234	1807	18	سمنگان	خرم و سارباغ	SAMANGAN	Khuram Wa Sarbagh	4,915
235	1901	19	بلخ	مرکز بلخ - مزار شریف	BALKH	Provincial Center Of Balkh ( Mazar-I-Sharif )	61,227
236	1902	19	بلخ	دهدادی	BALKH	Dehdadi	10,012
237	1903	19	بلخ	نهر شاهی	BALKH	Nahri Shahi	6,428
238	1904	19	بلخ	مارمل	BALKH	Marmul	1,518
239	1905	19	بلخ	خلم	BALKH	Khulm	8,202
240	1906	19	بلخ	کلدار	BALKH	Kaldar	3,213
241	1907	19	بلخ	شورتیه	BALKH	Shortepa	5,640
242	1908	19	بلخ	دولت آباد	BALKH	Dawlat Abad	14,663
243	1909	19	بلخ	بلخ	BALKH	Balkh	16,006
244	1910	19	بلخ	چار بولک	BALKH	Char Bolak	11,218
245	1911	19	بلخ	چمتال	BALKH	Chimtal	13,873
246	1912	19	بلخ	شولگره	BALKH	Sholgara	15,189
247	1913	19	بلخ	چارکنت	BALKH	Char Kent	5,458
248	1914	19	بلخ	کشنده	BALKH	Kishindeh	9,788
249	1915	19	بلخ	زاری	BALKH	Zari	8,094
250	2001	20	جوزجان	مرکز جوزجان - شبرغان	JAWZJAN	Provincial Center Of Jawzjan ( Sheberghan )	23,225
251	2002	20	جوزجان	آقچه	JAWZJAN	Aqchah	6,641
252	2003	20	جوزجان	فیض آباد	JAWZJAN	Faizabad	5,942
253	2004	20	جوزجان	مردیان	JAWZJAN	Mardyan	4,282
254	2005	20	جوزجان	منگجیک	JAWZJAN	Mingajik	5,747
255	2006	20	جوزجان	قرقین	JAWZJAN	Qarqin	3,581
256	2007	20	جوزجان	خمیاب	JAWZJAN	Khamyab	2,335
257	2008	20	جوزجان	قوش تپه	JAWZJAN	Qush Tepa	4,158
258	2009	20	جوزجان	درز آب	JAWZJAN	Darzab	5,781
259	2010	20	جوزجان	خواجه دوکوه	JAWZJAN	Khwaja Dukoh	3,340
260	2011	20	جوزجان	خانقا	JAWZJAN	Khanaqa	5,055

Annex 7a: Districts in Afghanistan (Source: CSO)

SN	Dcode4	PN	PND	DND	PNE	DNE	HHD
261	2101	21	سرپل	مرکز سرپل - سرپل	SAR-I- PUL	Provincial Center Of Sar-I-Pul (Sar-I-Pul )	20,085
262	2102	21	سرپل	سوزمه قلعه	SAR-I- PUL	Sozma Qala	6,140
263	2103	21	سرپل	صیاد	SAR-I- PUL	Sayyad	8,574
264	2104	21	سرپل	کو هستانات	SAR-I- PUL	Kohistanat	12,342
265	2105	21	سرپل	بلخاب	SAR-I- PUL	Balkhab	8,488
266	2106	21	سرپل	سنگ چارک	SAR-I- PUL	Sangcharak	15,491
267	2107	21	سرپل	گوسفندی	SAR-I- PUL	Gosfandi	7,187
268	2201	22	فاریاب	مرکز فاریاب - میمنه	FARYAB	Provincial Center Of Faryab ( Maimana )	11,235
269	2202	22	فاریاب	پشتون کوت	FARYAB	Pashtun Kot	28,646
270	2203	22	فاریاب	خواجه سبز پوش ولی	FARYAB	Khwaja Sabz Poshi Wali	7,861
271	2204	22	فاریاب	المار	FARYAB	Almar	10,343
272	2205	22	فاریاب	قیصار	FARYAB	Qaisar	18,113
273	2206	22	فاریاب	کو هستان	FARYAB	Kohistan	8,611
274	2207	22	فاریاب	گوزیوان	FARYAB	Gurziwan	11,856
275	2208	22	فاریاب	بل چراغ	FARYAB	Bilchiragh	6,927
276	2209	22	فاریاب	شیرین تگاب	FARYAB	Shirin Tagab	11,745
277	2210	22	فاریاب	دولت آباد	FARYAB	Dawlat Abad	7,314
278	2211	22	فاریاب	قرم قل	FARYAB	Qaram Qul	2,407
279	2212	22	فاریاب	خان چارباغ	FARYAB	Khani Charbagh	2,864
280	2213	22	فاریاب	اندخوی	FARYAB	Andkhoy	6,757
281	2214	22	فاریاب	قرغان	FARYAB	Qurghan	3,816
282	2301	23	بادغیس	مرکز بادغیس - قلعه نو	BADGHIS	Provincial Center Of Badghis (Qala-I-Now )	11,799
283	2302	23	بادغیس	مقر	BADGHIS	Muqur	3,615
284	2303	23	بادغیس	آبکمری	BADGHIS	Ab Kamari	14,530
285	2304	23	بادغیس	قادر	BADGHIS	Qadis	15,342
286	2305	23	بادغیس	جوند	BADGHIS	Jawand	14,043
287	2306	23	بادغیس	غورماچ	BADGHIS	Ghormach	8,537
288	2307	23	بادغیس	بالا مرغاب	BADGHIS	Bala Murghab	19,285
289	2401	24	هرات	مرکز هرات - هرات	HERAT	Provincial Center Of Herat ( Herat )	66,760
290	2402	24	هرات	انجیل	HERAT	Enjil	39,948
291	2403	24	هرات	نظام شهید (گذره)	HERAT	Nizam-I-Shahid (Guzara)	22,601
292	2404	24	هرات	پشتون زرغون	HERAT	Pashtun Zarghun	15,963
293	2405	24	هرات	کرخ	HERAT	Karrukh	9,403
294	2406	24	هرات	کشک (رباط سنگی)	HERAT	Kushk (Rubat-I-Sangi)	23,044
295	2407	24	هرات	گلران	HERAT	Gulran	18,216
296	2408	24	هرات	کھسان	HERAT	Kohsan	9,916
297	2409	24	هرات	غوریان	HERAT	Ghoryan	15,331
298	2410	24	هرات	زنده جان	HERAT	Zendajan	10,012
299	2411	24	هرات	ادرسکن	HERAT	Adraskan	10,428
300	2412	24	هرات	شیندند	HERAT	Shindand	29,066
301	2413	24	هرات	فرسی	HERAT	Fersi	5,658
302	2414	24	هرات	اوبه	HERAT	Obe	14,439
303	2415	24	هرات	چشت شریف	HERAT	Chishti Sharif	4,991
304	2416	24	هرات	کشک کهنه	HERAT	Kushk-I-Kuhna	7,297
305	2501	25	فراه	مرکز فراه - فراه	FARAH	Provincial Center Of Farah ( Farah )	17,663
306	2502	25	فراه	پشت رود	FARAH	Pushtrud	6,120
307	2503	25	فراه	خاک سفید	FARAH	Khak-I-Safed	5,980
308	2504	25	فراه	انار دره	FARAH	Anar Dara	4,354
309	2505	25	فراه	قلعه کاه	FARAH	Qala-I-Kah	5,032
310	2506	25	فراه	شیب کوه	FARAH	Shibkoh	3,959
311	2507	25	فراه	لاش جوی	FARAH	Lash-I-Juwayn	3,655
312	2508	25	فراه	بکواه	FARAH	Bakwa	6,102
313	2509	25	فراه	بالا بلوک	FARAH	Bala Buluk	12,457
314	2510	25	فراه	گلستان	FARAH	Gulistan	8,572
315	2511	25	فراه	پرچمن	FARAH	Pur Chaman	10,615

**Annex 7a: Districts in Afghanistan (Source: CSO)**

SN	Dcode4	PN	PND	DND	PNE	DNE	HHD
316	2601	26	نیمروز	مرکز نیمروز - زرنج	NIMROZ	Provincial Center Of Nimroz ( Zaranj )	7,955
317	2602	26	نیمروز	کنگ	NIMROZ	Kang	2,227
318	2603	26	نیمروز	چار برجک	NIMROZ	Char Burjak	1,325
319	2604	26	نیمروز	اصل چخانسور	NIMROZ	Asl-I-Chakhansur	1,900
320	2605	26	نیمروز	خاشرود	NIMROZ	Khashrod	5,287
321	2701	27	هلمند	مرکز هلمند - لشکرگاه	HELMAND	Provincial Center Of Helmand ( Lashkargah )	29,657
322	2702	27	هلمند	نهرسراج	HELMAND	Nahr-I-Saraj	23,331
323	2703	27	هلمند	ناد علی	HELMAND	Nad Ali	36,437
324	2704	27	هلمند	ناوه بارکزایی	HELMAND	Nawa-I- Barikzayi	12,421
325	2705	27	هلمند	گرم سیر	HELMAND	Garm Ser	17,795
326	2706	27	هلمند	سنگین قلعه	HELMAND	Sangin Qala	8,566
327	2707	27	هلمند	کجکی	HELMAND	Kajaki	15,831
328	2708	27	هلمند	باغران	HELMAND	Baghran	18,780
329	2709	27	هلمند	موسی قلعه	HELMAND	Musa Qala	14,298
330	2710	27	هلمند	نوزاد	HELMAND	Nawzad	15,770
331	2711	27	هلمند	واشیر	HELMAND	Washer	3,931
332	2712	27	هلمند	ریگ خان نشین	HELMAND	Reg-I- Khan Nishin	2,685
333	2713	27	هلمند	دیشو	HELMAND	Dishu	3,957
334	2801	28	کندهار	مرکز کندهار - کندهار	KANDAHAR	Provincial Center Of Kandahar ( Kandahar )	65,218
335	2802	28	کندهار	دامان	KANDAHAR	Daman	4,381
336	2804	28	کندهار	ارغنداب	KANDAHAR	Arghandab	8,205
337	2805	28	کندهار	خاک ریز	KANDAHAR	Khakrez	2,323
338	2807	28	کندهار	میوند	KANDAHAR	Maiwand	9,320
339	2808	28	کندهار	ژری	KANDAHAR	Zhire	15,215
340	2809	28	کندهار	پنجوانی	KANDAHAR	Panjwayee	10,760
341	2812	28	کندهار	سپین بولدک	KANDAHAR	Spin Boldak	22,551
342	2901	29	زابل	مرکز زابل - قلات	ZABUL	Provincial Center Of Zabol ( Qalat )	5,003
343	2902	29	زابل	شاه جوی	ZABUL	Shah Joi	10,419
344	2906	29	زابل	میزان	ZABUL	Mizan	2,804
345	2907	29	زابل	ترنگ و جلدک	ZABUL	Tarank Wa Jaldak	2,960
346	2908	29	زابل	شینکی	ZABUL	Shinkai	3,562
347	2909	29	زابل	اتغر	ZABUL	Atghar	2,100
348	2910	29	زابل	شمل زانی	ZABUL	Shemel Zayi	5,006
349	2911	29	زابل	نوبهار	ZABUL	Naw Bahar	3,452
350	3001	30	ارزگان	مرکز ارزگان - ترینکوٹ	UROZGAN	Provincial Center Of Urozgan ( Tirinkot )	16,933
351	3002	30	ارزگان	چوره	UROZGAN	Chora	10,198
352	3003	30	ارزگان	خاص ارزگان	UROZGAN	Khas Urozgan	6,469
353	3004	30	ارزگان	شهید حساس	UROZGAN	Shahidhassas	5,286
354	3005	30	ارزگان	دهراود	UROZGAN	Dehraoud	7,087
355	3101	31	غور	مرکز غور - چغچران	GHOR	Provincial Center of Ghor ( Chighcheran )	21,753
356	3102	31	غور	دولتیار	GHOR	Dawlatyar	5,422
357	3103	31	غور	چار صده	GHOR	Char Sada	5,196
358	3104	31	غور	شهرک	GHOR	Shahrak	11,165
359	3105	31	غور	دولینه	GHOR	Duleena	6,661
360	3106	31	غور	پسابند	GHOR	Pasaband	17,186
361	3107	31	غور	لعل و سرچنگل	GHOR	Lal Wa Sarjangal	15,095
362	3108	31	غور	تولک	GHOR	Tulak	8,594
363	3109	31	غور	ساغر	GHOR	Saghar	5,853
364	3110	31	غور	تیوره	GHOR	Taywara	15,776
365	3201	32	بامیان	مرکز بامیان - بامیان	BAMYAN	Provincial Center of Bamiyan ( Bamiyan )	11,725
366	3202	32	بامیان	شیر	BAMYAN	Shebar	3,887
367	3203	32	بامیان	سیغان	BAMYAN	Saighan	3,793
368	3204	32	بامیان	کهمر د	BAMYAN	Kahmard	4,607
369	3205	32	بامیان	یکاولنگ	BAMYAN	Yakawlang	10,755
370	3206	32	بامیان	پنجاب	BAMYAN	Panjab	8,080
371	3207	32	بامیان	ورث	BAMYAN	Waras	13,911

**Annex 7a: Districts in Afghanistan (Source: CSO)**

SN	Dcode4	PN	PND	DND	PNE	DNE	HHD
372	3301	33	پنجشیر	مرکز پنجشیر - بازارک	PANJSHER	Provincial Center of Panjsher (Bazarak )	2,384
373	3302	33	پنجشیر	رخه	PANJSHER	Rukha	1,622
374	3303	33	پنجشیر	عنابه	PANJSHER	Unaba	2,077
375	3304	33	پنجشیر	دره	PANJSHER	Darah	3,142
376	3305	33	پنجشیر	حصه اول ( خنج )	PANJSHER	Hissa-I-Awal (Khinj )	3,531
377	3306	33	پنجشیر	شتل	PANJSHER	Shutul	1,884
378	3307	33	پنجشیر	پریان	PANJSHER	Paryan	1,915
379	3401	34	دایکندی	مرکز دایکندی - نیلی	DAYKUNDI	Provincial Center Of Daykundi ( Nili )	5,667
380	3402	34	دایکندی	شهرستان	DAYKUNDI	Shahristan	12,114
381	3403	34	دایکندی	میرامور	DAYKUNDI	Miramor	14,560
382	3404	34	دایکندی	اشترلی	DAYKUNDI	Ishterlai	10,105
383	3405	34	دایکندی	سنگ تخت	DAYKUNDI	Sang-I-Takht	8,217
384	3406	34	دایکندی	خدیر	DAYKUNDI	Khedir	7,522
385	3407	34	دایکندی	کجران	DAYKUNDI	Kejran	4,685
386	3408	34	دایکندی	گیتی	DAYKUNDI	Geti	11,388
387	3409	34	دایکندی	گیزاب	DAYKUNDI	Gizab	10,819

**Annex 7b: Adverse conditions of irrigated wheat**  
(See Annex 7a for district names)

Region	Province	Crop	Adverse Condition	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19
North	FARYAB	Irrigated Wheat(Winter)	Flood	2	3	11	7	14	5	4	12											
North	JAWZJAN	Irrigated Wheat(Winter)	Flood	1	3	8	11	10														
North	SAR-I- PUL	Irrigated Wheat(Winter)	Flood	1	2	4	6	7														
North	BALKH	Irrigated Wheat(Winter)	Flood	14	12	11	3															
North	BALKH	Irrigated Wheat(Spring)	Flood	14	12	11																
North	SAMANGAN	Irrigated Wheat(Spring)	Flood	1	2	3	4	5	18													
North-East	BUGHLAN	Irrigated Wheat(Winter)	Flood	7	4	3	2	1	16	10	9											
North-East	KUNDUZ	Irrigated Wheat(Winter)	Flood	1																		
North-East	KUNDUZ	Irrigated Wheat(Winter)	Locust	2	5	6	7	4														
North-East	TAKHAR	Irrigated Wheat(Winter)	Flood	6	5	13	1															
North-East	TAKHAR	Irrigated Wheat(Winter)	Locust	4	16	15	14	5	13	12	11	10										
North-East	BADAKSHAN	Irrigated Wheat(Winter)	Flood		2	19	7	13														
West	HERAT	Irrigated Wheat(Winter)	Flood	4	10	12	2	3	8	11	13	14										
West	HERAT	Irrigated Wheat(Winter)	Locust	10	2	12																
West	HERAT	Irrigated Wheat(Winter)	Frost	6	7																	
West	FARAH	Irrigated Wheat(Winter)	Flood	1	5	6	11															
West	BADGHIS	Irrigated Wheat(Winter)	Flood	1	4																	
West-Central	GHOR	Irrigated Wheat(Winter)	Flood	4	5																	
West-Central	GHOR	Irrigated Wheat(Spring)	Flood	4	5																	
West-Central	GHOR	Irrigated Wheat(Spring)	Flood	1																		
West-Central	BAMYAN	Irrigated Wheat(Spring)	Flood	1	2	4	5															
Central	KABUL	Irrigated Wheat(Winter)	Frost	10	9	7	5															
Central	PARWAN	Irrigated Wheat(Winter)	Cicada	8	6	4	3	1	2													
Central	PANJSHER	Irrigated Wheat(Winter)	Frost	4	7	5	3	2	1	6												
Central	KAPISA	Irrigated Wheat(Winter)	Sunn pest	7	5																	
South	PAKTIKA	Irrigated Wheat(Winter)	Flood	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
South	PAKTIKA	Irrigated Wheat(Spring)	Flood	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
East	LAGHMAN	Irrigated Wheat(Winter)	Flood	1	4																	
East	KUNARHA	Irrigated Wheat(Winter)	Flood	9	8	11	13	4														
East	NANGARHAR	Irrigated Wheat(Winter)	Flood	10	9	3	2	7	8	11	4											
East	NOORISTAN	Irrigated Wheat(Winter)	Smut	4																		

**Annex 7b: Adverse conditions of irrigated wheat**  
(See Annex 7a for district names)

Region	Province	Crop	Adverse Condition	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19
South-West	HELMAND	Irrigated Wheat(Winter)	Flood	1	2	3	4	6														
South-West	HELMAND	Irrigated Wheat(Winter)	Sunn pest	1	2	3	4	6														
South-West	HELMAND	Irrigated Wheat(Winter)	Frost	1	2	3	4	6														
South-West	HELMAND	Irrigated Wheat(Winter)	Melom fly	1	2	3	4	6														
South-West	ZABUL	Irrigated Wheat(Winter)	Flood	1	2	3																
South-West	ZABUL	Irrigated Wheat(Winter)	Frost	4	7																	
South-West	ZABUL	Irrigated Wheat(Winter)	Cicada	3	8	9																
South-West	NIMRUZ	Irrigated Wheat(Winter)	Flood	4																		
South-West	NIMRUZ	Irrigated Wheat(Winter)	Frost	1																		
South-West	UROZGAN	Irrigated Wheat(Winter)	Flood	1	4																	
South-West	UROZGAN	Irrigated Wheat(Winter)	Frost	1	4																	

**Annex 7c: Adverse conditions of rainfed wheat**  
(See Annex 7a for district names)

Region	Province	Adverse Condition	Total Districts	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19
North	JAWZJAN	Flood	11	8																		
North	SAR-I- PUL	Flood	7	1																		
North	BALKH	Flood	15	14	12	11																
North	SAMANGAN	Frost	7	4	2	1	3	7	6													
North-East	KUNDUZ	Flood	7	2																		
North-East	KUNDUZ	Locust	7	2	5	6	7	4														
North-East	TAKHAR	Flood	17	9	11	7	8	10	12													
North-East	TAKHAR	Locust	17	4	16	15	14	5	13	12												
North-East	BADAKHSHAN	Flood	28	27	23	9																
West	HERAT	Frost	16	6	7																	
West	BADGHIS	Flood	7	1	4																	
West-Central	GHOR	Flood	10	4	5																	
West-Central	BAMYAN	Flood	7	8																		
Central	PARWAN	Cicada	10	8																		
South	PAKTIKA	Flood	19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
East	KUNARHA	Flood	15	5																		
South-West	ZABUL	Melom fly	8	2	3	4																
South-West	DAYKUNDI	Flood	9	1	2	3	5	7														

**Annex 7d: Adverse conditions of other crops**  
(See Annex 7a for district names)

Region	Province	Crop	Adverse Condition	Total Districts	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
North	BALKH	Grapes	Flood	15	4	5	2								
North	BALKH	Almond	Flood	15	14	12	11								
North-East	TAKHAR	Peaches	Other	15	3	8	10	9							
North-East	KUNDUZ	Almond	Other	7	1	2	3	4	5	6	7				
North-East	TAKHAR	Almond	Other	17	3										
North-East	BADAKHSHAN	Vegetables	Other	28	1	2	7	9	13	14					
West	HERAT	Peaches	Frost	16	2	3	4								
West	HERAT	Plums	Frost	16	6	7									
West	HERAT	Almond	Frost	16	9	10	8								
West	HERAT	Apricot	Frost	16	9	10	8								
West	FARAH	Vegetables	Frost	11	1	2	3	4	5	6	7	8	9	10	11
Central	LOGAR	Apricot	Frost	7	2	1	4								
Central	WARDAK	Rainfed Barley	Smut	9	1	2									
Central	WARDAK	Rainfed Barley	Other	9	1	2									
South	GHAZNI	Plums	Frost	19	1	4									
South	GHAZNI	Apricot	Frost	19	1	4	2								
East	LAGHMAN	Vegetables	Frost	5	1	2									
South-West	KANDAHAR	Peaches	Frost	8	1	2	3	4	5	6					
South-West	KANDAHAR	Almond	Frost	8	1	2	3	4	5	6					
South-West	KANDAHAR	Walnut	Frost	8	1	2	3	4	5	6	7				
South-West	KANDAHAR	Apricot	Frost	8	1	2	3	4	5	6	7				
South-West	HELMAND	Melon	Rust	13	1	2	3	4	6						

**Annex 7e: Adverse conditions of livestock**  
(See Annex 7a for district names)

Region	Province	Livestock	Adverse Condition	Dead	Affected	Total Districts	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13
North	FARYAB	Cattle	FMD	2,500	3,000	14	2	3	4	5	7	8	9	10	13				
North	FARYAB	Sheep	Sheep pox	8,000	110,000	14	ALL												
North	FARYAB	Sheep	PPR	6,000	60,000	14	ALL												
North	FARYAB	Goat	Sheep pox	7,000	40,000	14	ALL												
North	FARYAB	Goat	PPR	4,000	50,000	14	ALL												
North	SAR-I- PUL	Cattle	FMD		40	7	1												
North	SAR-I- PUL	Sheep	FMD		200	7	1												
North	SAR-I- PUL	Sheep	Sheep pox		300	7	1												
North	SAR-I- PUL	Sheep	PPR		80	7	1												
North	SAR-I- PUL	Goat	FMD		50	7	1												
North	SAR-I- PUL	Goat	Sheep pox		800	7	1												
North	SAR-I- PUL	Poultry	Newcastle	2,000	1,000	7	1												
North	BALKH	Cattle	FMD	500	2,500	15	3	5	11	10	9	2	12	13	4	7			
North	BALKH	Sheep	PPR	300	2,000	15	3	4	7	5	11	14							
North	BALKH	Sheep	Harsh weather	1,000	10,000	15	2	4	6	7	3	9	12	10	11	14			
North	BALKH	Goat	Harsh weather	500	4,500	15	2	4	6	7	3	9	12	10	11	14			
North	BALKH	Poultry	Newcastle	3,000		15	3	5	11	10	9	2	12	13	4	7	1	6	15
North	SAMANGAN	Sheep	Enterotoxemia	500	2,500	7	1	2	4	5	7	6	3						
North	SAMANGAN	Sheep	Sheep pox	100	1,000	7	1	2	4	5	7	6	3						
North	SAMANGAN	Sheep	Harsh weather	3,000		7	1	2	4	5	7	6	3						
North	SAMANGAN	Goat	Enterotoxemia	300	1,500	7	1	2	4	5	7	6	3						
North	SAMANGAN	Goat	Sheep pox	50	600	7	1	2	4	5	7	6	3						
North	SAMANGAN	Goat	Harsh weather	2,000		7	1	2	4	5	7	6	3						
North-East	BAGHLAN	Sheep	Harsh weather	2,500	30,000	15	1	3	9	4									
North-East	BAGHLAN	Goat	Harsh weather	1,200	18,000	15	1	3	9	4									
North-East	KUNDUZ	Cattle	FMD	2,000	50,000	7	1	2	3	4	5	6	7						
North-East	TAKHAR	Cattle	FMD	2,000	25,000	17	ALL												
North-East	TAKHAR	Sheep	PPR	3,200	40,000	17	ALL												
North-East	TAKHAR	Goat	PPR	3,500	35,000	17	ALL												
North-East	BADAKHSHAN	Cattle	Lack of feed	16,000	93,000	28	ALL												
North-East	BADAKHSHAN	Sheep	Lack of feed	25,000	127,000	28	ALL												
North-East	BADAKHSHAN	Sheep	Harsh weather	3,000	30,000	28	7	2	9	10	11	16	21	22					

**Annex 7e: Adverse conditions of livestock**  
(See Annex 7a for district names)

Region	Province	Livestock	Adverse Condition	Dead	Affected	Total Districts	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13
North	FARYAB	Cattle	FMD	2,500	3,000	14	2	3	4	5	7	8	9	10	13				
North-East	BADAKHSHAN	Goat	Lack of feed	5,000	120,000	28	ALL												
North-East	BADAKHSHAN	Goat	Harsh weather	3,200	32,000	28	7	2	9	10	11	16	21	22					
West	HERAT	Cattle	FMD		300	16	2	3	5	10	4	11	12						
West	HERAT	Sheep	Enterotoxemia	500	4,000	16	7	6	9	12	11	4	5	14					
West	HERAT	Sheep	Sheep pox	1,000	1,000	16	11	6	7	4	5	9	12						
West	HERAT	Sheep	Anthrax	125	1,000	16	6	16	7	9	10	8	5	11	12				
West	HERAT	Sheep	PPR	50	500	16	5	9	10	7	4	11							
West	HERAT	Goat	Sheep pox	1,000	1,000	16	11	6	7	4	5	9	12						
West	HERAT	Goat	Anthrax	125	1,000	16	6	16	7	9	10	8	5	11	12	14			
West	HERAT	Goat	PPR	150	1,000	16	11	5	10	4	7								
West	FARAH	Cattle	Harsh weather	11		11	11												
West	FARAH	Cattle	Harsh weather	10		11	6												
West	FARAH	Sheep	Harsh weather	40		11	11												
West	FARAH	Sheep	Harsh weather	100		11	1												
West	FARAH	Sheep	Harsh weather	20		11	6												
West	FARAH	Goat	Harsh weather	105		11	11												
West	FARAH	Goat	Harsh weather	122		11	1												
West	FARAH	Goat	Harsh weather	40		11	6												
West	BADGHIS	Cattle	FMD		2,140	7	7	1	4	13									
West	BADGHIS	Sheep	Enterotoxemia	5,000		7	1	7	2	4	5	3							
West	BADGHIS	Sheep	Sheep pox	4,000	5,000	7	3	4	5	1	7	2							
West	BADGHIS	Goat	Enterotoxemia	2,000		7	1	7	2	4	5	3							
West	BADGHIS	Goat	Harsh weather	1,500	6,000	7	5	4	3	1	2	7							
West	BADGHIS	Poultry	Newcastle	3,000		7	3	1	4	5	2	7							
West-Central	GHOR	Sheep	Sheep pox	1,253	2,664	10	1	2	3	4	5	6	7	8	9	10			
West-Central	BAMYAN	Cattle	FMD		4,000	7	1	2	5										
West-Central	BAMYAN	Cattle	Enterotoxemia		1,000	7	1	2	5	6									
Central	PANJSHER	Cattle	Harsh weather	150		7	7												
Central	PANJSHER	Sheep	Harsh weather	350		7	7												
Central	PANJSHER	Goat	Harsh weather	200		7	7												
Central	LOGAR	Cattle	FMD	1,000	5,000	7	4	5	1	2									

**Annex 7e: Adverse conditions of livestock**  
(See Annex 7a for district names)

Region	Province	Livestock	Adverse Condition	Dead	Affected	Total Districts	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13
North	FARYAB	Cattle	FMD	2,500	3,000	14	2	3	4	5	7	8	9	10	13				
Central	LOGAR	Sheep	Harsh weather	500	1,000	7	1	2	4	5									
Central	LOGAR	Goat	Harsh weather	150	300	7	1	2	4	5									
Central	WARDAK	Cattle	FMD		3,000	9	1	2	9										
Central	WARDAK	Sheep	Sheep pox		5,000	9	1	2	9										
South	PAKTYA	Cattle	FMD	12	880	11	1	11	2	6	10	8	4						
South	PAKTYA	Sheep	Sheep pox	10	580	11	2	1	6	10									
South	PAKTYA	Sheep	PPR	120	1,280	11	5	3	6	7									
South	PAKTYA	Goat	Sheep pox	6	420	11	2	1	6	10									
South	PAKTYA	Goat	PPR	80	720	11	5	3	6	7									
South	PAKTIKA	Cattle	Enterotoxemia	30	200	19	ALL												
South	PAKTIKA	Cattle	Lack of feed		1,500	19	ALL												
South	PAKTIKA	Sheep	Lack of feed		10,000	19	ALL												
South	PAKTIKA	Goat	Lack of feed		12,000	19	ALL												
South	KHOST	Cattle	FMD	600	1,000	13	1	3	4	2	5	6							
South	KHOST	Sheep	PPR	120	500	13	2	5	12	13									
South	KHOST	Goat	Enterotoxemia	80	160	13	2	5	12	13									
South	KHOST	Poultry	Newcastle	2,000		13	1	12	13	9	5	4	2						
South	GHAZNI	Cattle	FMD	25	212	19	12	1	4	3	10	8							
South	GHAZNI	Sheep	FMD	66	530	19	4	1	10	2	11	3							
South	GHAZNI	Sheep	Enterotoxemia	42	322	19	1	2	9	7	11								
South	GHAZNI	Goat	FMD	16	122	19	4	1	10	2	11	3							
South	GHAZNI	Goat	Enterotoxemia	10	56	19	1	2	9	7	11								
South	GHAZNI	Poultry	Harsh weather	160	640	19	1	2	9	4									
South-West	KANDAHAR	Cattle	FMD	225	3,550	8	1	2	3	4	5	6	7	8	9	10			
South-West	KANDAHAR	Cattle	Lack of feed	210	375	8	1	2	3	4	5	6	7	8	9	10			
South-West	KANDAHAR	Sheep	Enterotoxemia	130	1,280	8	1	2	3	4	5	6	7	8	9	10			
South-West	KANDAHAR	Sheep	Lack of feed	62	121	8	1	2	3	4	5	6	7	8	9	10			
South-West	KANDAHAR	Goat	Lack of feed	142	294	8	1	2	3	4	5	6	7	8	9	10			
South-West	KANDAHAR	Poultry	Lack of feed	255	425	8	1	2	3	4	5	6	7	8	9	10			
South-West	HELMAND	Cattle	FMD	13	87	13	1	2	3	4	6								
South-West	HELMAND	Sheep	Enterotoxemia	25	120	13	1	2	3	4	6								

**Annex 7e: Adverse conditions of livestock**  
(See Annex 7a for district names)

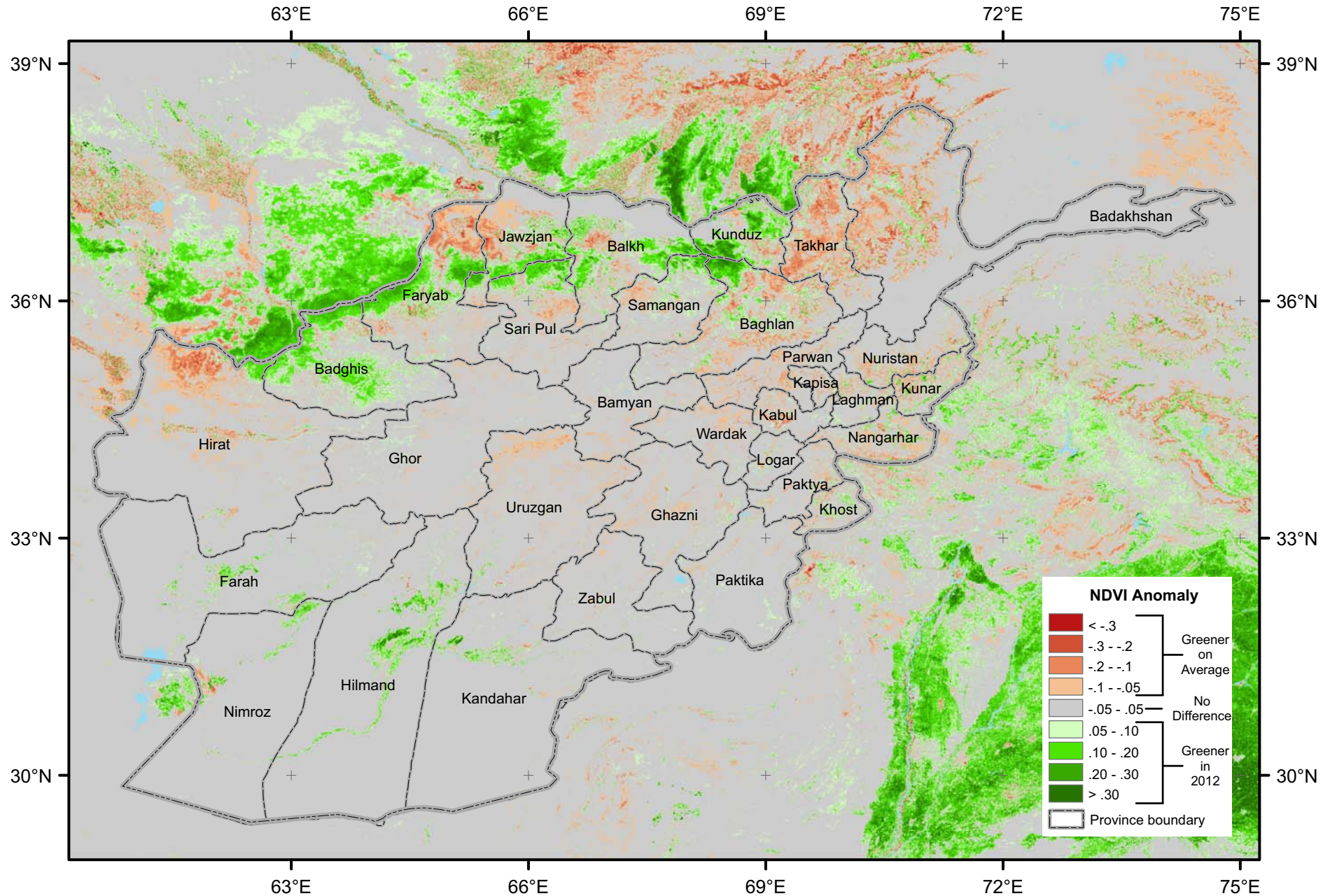
Region	Province	Livestock	Adverse Condition	Dead	Affected	Total Districts	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13
North	FARYAB	Cattle	FMD	2,500	3,000	14	2	3	4	5	7	8	9	10	13				
South-West	HELMAND	Sheep	Sheep pox	33	213	13	1	2	3	4	6								
South-West	HELMAND	Goat	Enterotoxemia	15	40	13	1	2	3	4	6								
South-West	HELMAND	Goat	Sheep pox	46	47	13	1	2	3	4	6								
South-West	ZABUL	Cattle	Lack of vaccines			8	1	2	3	4	5	6	7	8					
South-West	ZABUL	Sheep	Lack of vaccines			8	1	2	3	4	5	6	7	8					
South-West	ZABUL	Goat	Lack of vaccines			8	1	2	3	4	5	6	7	8					
South-West	ZABUL	Poultry	Lack of vaccines			8	1	2	3	4	5	6	7	8					
South-West	NIMRUZ	Cattle	FMD	155	1,500	5	1	2	3	4	5								
South-West	NIMRUZ	Cattle	Blackleg	265	800	5	1	4											
South-West	NIMRUZ	Sheep	FMD	500	25,000	5	1	2	3	4	5								
South-West	NIMRUZ	Goat	FMD	3,500	18,000	5	1	2	3	4	5								
South-West	UROZGAN	Cattle	FMD	10	2,311	5	1	2	3	4	5								
South-West	UROZGAN	Cattle	Enterotoxemia		500	5	1	2	3	4	5								
South-West	UROZGAN	Cattle	Lack of vaccines		3,000	5	1	2	3	4	5								
South-West	UROZGAN	Sheep	Sheep pox		3,946	5	1	2	3	4	5								
South-West	UROZGAN	Sheep	Lack of vaccines		15,000	5	1	2	3	4	5								
South-West	UROZGAN	Goat	Lack of vaccines		15,000	5	1	2	3	4	5								
South-West	UROZGAN	Poultry	Lack of vaccines		25,000	5	1	2	3	4	5								
South-West	DAYKUNDI	Cattle	FMD		1,000	9	1	5	7										
South-West	DAYKUNDI	Sheep	Sheep pox		2,000	9	1	5	7										

Normalized Difference Vegetation Index Difference : Apr 22 - May 07  
2012 minus 2011 - 250 meter MODIS NDVI data



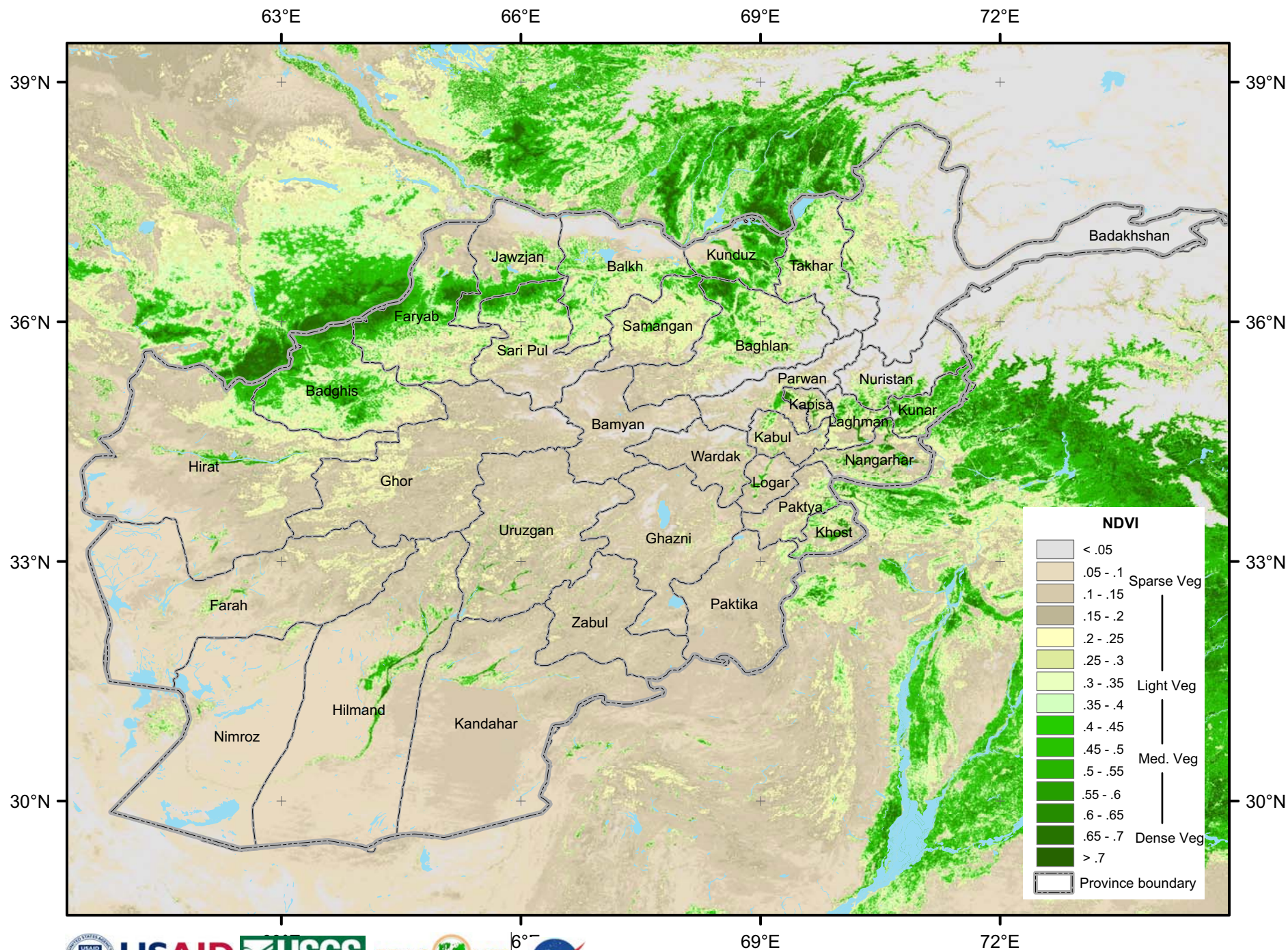
## Annex: 8b

Normalized Difference Vegetation Index Anomaly : Apr 22 - May 07  
2012 minus Average (2000-2009) - 250 meter MODIS NDVI data



# Annex: 8c

Normalized Difference Vegetation Index : Apr 22 - May 07, 2012  
250 meter MODIS NDVI data



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