National Surveillance System (NSS)
Transitional Islamic State of Afghanistan

Round Two Surveillance Reports
Jawzjan Province
(data collection: Spring 2004)

prepared by

GOAL
Food Security and Nutritional Surveillance Team

in partnership with

Jawzjan Province Surveillance Unit

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Ministry of Health

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Jawzjan Province Round 2 Reports

Darzap/ Qoushtapa District Sentinel Sites
- Jar Qoduq – Livelihood Zone 1  
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Shiberghan District Sentinel Sites
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SUMMARY FINDINGS FOR JAR QODUQ SENTINEL SITE IN DARZAP/QOSHTAPA DISTRICT
(These findings are based on field survey of 20 households and Jar Qoduq village leaders interview. These findings should not be assumed to representative of other parts of Afghanistan)

**Food Security**
- Crop production has fallen considerably in 2004 compared to the 2003 crop season. The 2003 harvest reported to be a normal harvest year with farmers averaging from 1 to 1.9 tons per hectare. This year with poor rainfall at the beginning and the end of the cycle and locust damage, average wheat yield were between 500 to 900 kg/hectare. On the same line, the average land accessed by all households has increased from 86 jiribs of land to 469 jiribs of land in 2004.
- More (7.5%) households felt they were not able to buy/cultivate enough food in the past six months. More (25%) households felt that food situation was worse than one year ago. On average all households combined had a dietary diversity score of 2.6 against 1.1 in 2003 with an increase of 1.5 dietary diversity score in 2004.

**Risk to Lives**
- The crude mortality rate is not above the emergency threshold rate of deaths people per day but is above the normal developing country level of deaths people per day. Furthermore, for children under five years of age, the mortality rate does not compare favorably with the stable developing country rate and the emergency threshold rate of deaths people per day. The current increased rate of water, bloody diarrhea and the acute respiratory Infections of children under five years of age is serious concern for the village.

**Livelihood Security**
- None of the household’s income has increased for the last six months to compare year ago.
- In 2004, agricultural day labour and non-agricultural labour, collection of natural resources, use loans, crop production were popular income sources for "poor" and "middle" income women households.

**Methodology**
The NSS is based on a sentinel site system, in which provincial level ministries follow a rotating cohort of households' overtime. Sites are selected so that they mirror the majority of the communities with respect to agro-ecological features, economic activities, available services and people in a given area (livelihood / agro-ecological zone). Because of the diversity of livelihoods in Afghanistan, even in rural areas, information from the sentinel may not be representative of every village in the zone. However, it is likely, that the data from one sentinel site can signal concern for other villages in the same zone (See Annex I for detailed information on methodology).
FOOD SECURITY – Jar Qoduq

CROP PRODUCTION
The Jawzjan province has great potential for growing a wide variety of cereal crops including wheat, rice and barley. Nevertheless, natural hazards (drought, locust invasions) combined with old-fashion farming practices limit the production. Rural and semi-rural areas in Afghanistan remain highly dependant on subsistence agriculture for households' consumption. As a result, the reduction of the harvest will affect seasonal agricultural labour patterns in rural areas, reducing labour and income opportunities and placing greater economic strains on households that would eventually force them to purchase wheat at higher prices. The annual wheat production required for Shebarghan district population of 146,300 people is estimated to be 33 metric tones per year. This does not include amount of seeds that households will keep for planting next growing season.

Area planted
Land access and ownership is the key prerequisite for agricultural production. As shown in the table on the right, the data gathered show that cultivated land varied from season to season and year to year. On the same line, the average land accessed by all households has been increased from 86 jiribs land to 469 jiribs of land in 2004. Yet, On the same line, the wealthy household average accessed land has increased by 68%, where the middle households' average accessed jiribs have increased by 78%. Furthermore, poor household average access land has increased by 93%. Though draft oxen are extremely important to household crop production, in Jar Qoduq, 30% households owned oxen.

Wheat Production (Yield)
Agricultural production is important source of income with 50% of households engaging in crop production. As some of the household do not own land or some (wealthy) were sharecroppers, the amount of yield kept by households can differ from the actual harvest.

The graph on the right, presents the average amount of yield retained from irrigated land by the household in 2003 and 2004. It is disaggregated by wealth to understand relative differences in food availability by socio-economic groups. However, the data shows that wealthy households were not engaged in crop production in 2003, whereas poor households were not engaged in crop production in 2004. Wealthy households' wheat yield is estimated at 100 Seers against zero Seers in 2003 with an increase of 100. In contrast, middle household wheat yield totaled 95 Seers against 700 Seers in 2003 with a drop of 86%. On the same line, Poor household wheat yield is estimated zero Seers against 683 Seers in 2003 with a drop of 100%. However, this graph does not necessarily represent the food security.

ASSESSMENT OF CROP LOSSES
Crop production has fallen considerably this year compared to the 2003 crop season. The 2003 harvest was reported to be a normal harvest year with farmers averaging from 1 to 1.9 tons per hectare. This year with poor rainfall at the beginning and at the end of cycle, average wheat yield were between 500 to 900 kg/hectare. During this crop season the situation was exacerbated by
smut diseases and Sunn pest which destroyed wheat in several districts in Jawzjan province. The overall losses by diseases and drought damage have been estimated to be 50 in Samangan (GOAL- impact assessment report 2004).

FOOD SECURITY PERCEPTION
In 2003, 12.5% of households felt they were not able to buy/cultivate enough food six months prior to the survey. 20% of households considered that the food situation was worse than one year ago and 25% of households consider food situation was not sufficient during the time of the survey. Nonetheless, 72.5% did worry about how they would purchase/cultivate food and household enumerators thought that 10% of households did not have enough food to last through the next six months. In contrast in 2004, more (7.5%) households felt they were not able to buy/cultivate enough food in the past six months. More (25%) households felt that food situation was worse than one year ago. Yet, more (15%) of households have considered that they were not able to buy/cultivate enough food during the time of the survey.

Again, more new (40%) households worry how they would purchase/cultivate food in 2004 than 2003. Enumerators observed that less households (5%) did not appear to have enough food to survive for the next six months compared to that of 2003. More (17.5%) of the interviewed households thought the food security would get worse over the next six months comparing to 2003, though many expressed uncertainty about how they could predict changes in food security within their homes.

PERCEPTION OF FOOD SECURITY INDICATORS

<table>
<thead>
<tr>
<th></th>
<th>2003 (%)</th>
<th>2004 (%)</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider food situation to be worse in comparison to 4/6 months ago</td>
<td>12.5</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Consider food situation to be worse than one year ago</td>
<td>20</td>
<td>45</td>
<td>25</td>
</tr>
<tr>
<td>Considered food situation not to be sufficient at time of survey</td>
<td>25</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Worried where their food was coming at the time of survey</td>
<td>72.5</td>
<td>33</td>
<td>39.5</td>
</tr>
<tr>
<td>Expect the food situation to be worse in the next 4/6 months</td>
<td>0</td>
<td>17.5</td>
<td>17.5</td>
</tr>
<tr>
<td>Enumerators thought households did not have enough food for the next 4/6 months</td>
<td>10</td>
<td>5.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Dietary Diversity - Diet Quality
Household dietary diversity scores are summarized in the graph on the right. The diversity score is calculated by attributing a score of "1" to each food group that was eaten at least once weekly by a household. Households with a higher diversity score have a more diverse diet. Surveys repeated throughout the country indicate that most households consume cereals or grains on a daily basis and thus, cereals were not included in the diet diversity score. On average all households combined had a dietary diversity score of 2.6 against 1.1 in 2003 with an increase of 1.5 dietary diversity score in 2004.

The histogram on the right shows that in 2004, most households (13, 7 and 6 households) scored "1", "3" and "2" respectively. In contrast, in 2003, most (17) households scored "0" and (10) households scored "1" and 7 household scored "2". Diversity scores are relatively or slightly different between Wealth groups. "Wealthy" group scored 4.0 against 1.4 in 2003 whereas "middle" scored 2.7 against 1.5 in 2003 and poor wealth group score 2.3 against 0.8 in 2003. Diversity scores of all households have slightly increased in 2004 compared to that of 2003.
The graph on the right reflects the average frequency of consumption for food. The data shows that all households are eating protein rich foods (meat, milk, eggs and pulse) at least once a month to once a week to complement cereals (wheat and barley). However, the data indicates no significant changes on most food group consumption in 2004.

The average frequency meat consumption by households has increased from 2.2 to 3.0 in 2004. With same trend both dairy product and pulses were increased from 2.3 to 4.1 and from 3.2 to 3.5 respectively. Furthermore, other vegetables average frequency consumption has increased from 1.7 to 4.8 in 2003. In contrast fruits average frequency has decreased from 4.3 to 2.3 in 2004. However this data does not allow inferences regarding protein sufficiency.

As the data regarding quantities and consumption practices were not collected, no inferences can be made regarding the adequacy of vitamin and mineral intakes. Nonetheless, this data suggests that the areas that need additional research include:

1. Vitamin A sufficiency (animal sources and beta-carotene from plant sources);
2. Calcium sufficiency (milk and water, most water is hard, sources), and;
3. Vitamin C sufficiency (fresh plant sources).

These concerns are based on the frequency of consumption reported by households and the limited availability of these foods compared to other items.

MARKET ACCESS

Sheberghan city is the closest food market to Qanjogha, accessible by highway (two hours by foot or donkey). The road is part of the Afghanistan Northern only highway and is in relatively good condition. According to this survey, some travel by vehicle (10 Af's per trip) but this cost may vary according to the person's location in the village. Most Qanjogha residents access Sheberghan market to trade wheat and livestock, and also purchase food and non-food items. The largest trade by women is carpet sales. Market transactions are cash based and most households send one person to the market on market day (Mondays and Thursdays, weekly). The market is open year-round and is one of the most important trading for local districts, Jawzjan and the surrounding provinces.

As shown on the graphs, no significant price changes have been shown from both surveys. Wheat and green tea prices have been stable both years. However, daily labour rates increased from March 2003 reaching a peak of 200 Af's per day in June. Rates then began decreasing on November. The same trends held for both rice and mutton. Rice prices reached a peak of 220 Af's per Kg from January, June and November 2003 and January 2004.
2004. Mutton prices reached a maximum price of 150 Af’s in January, March and November 2003. Mutton and rice increases directly impact village food security since these are staple food items. Households also purchase vegetable items (potatoes, spring onions, okra and carrots) from Sheberghan market: prices have remained steady. There are seasonal shortages of some vegetables, though this does not seem to impact vegetable prices nor is demand increased during off-season. Households simply purchase what is available at that time in the market.

LIVESTOCK

In 2003, Less than a fifth of households claim income from livestock production 18%. Livestock production was generally a secondary source of income; only 2.5% reported livestock rising as a major income generation activity. Recent research (March, 2002) described a 60% reduction in Afghani livestock populations due to draught nationwide. In Jawzjan, approximately 83% of animal stocks have been lost. Calving/lambing rates range from 25 to 75% resulting in a slow increase in animal numbers, though current populations remain much lower than pre-drought figures. Longer-term breeding programmes and increased access to credit so that farmers can increase reproductive capacity and purchase new animals will be needed to replenish livestock populations.

As shown in the table on the right, even though in many parts of Jawzjan the livestock has been hit by the destruction of grazing land caused by drought. In Jar Qoduq the percent of household owning livestock (sheep and goats) and average number of livestock (sheep and goats,) per household has increased in 2004 comparing to 2003.

Livestock ownership is a source of income for 43% households in the area. Of these households, 7.5% were from “wealthy” and 17.5% from “poor” households and 17.5% were from “middle” income households.

As indicated the graph on the right, in 2004 the percentage of households own animals have stayed very much the same as in 2003. However, more (16%) of new poor households own goats in 2004, whereas, 50% of new middle income households also own cows in 2004 in comparison with 2003. This is an indication of more middle and poor income household are persuading livestock as a new source of income in 2004 in comparison 2003.

Livestock disease

In 2003, when asked livestock diseases, the male village leaders noted that their sheep and goats were affected by anthrax and PPR (Sheep Pox) and their cattle and oxen had foot and mouth disease. The total of 3000 sheep and goats owned by the people of Jar Qodq, 100 head were reported to be affected by Sheep Pox. The cattle owned in the village of Jar Qodoq ware 200 cows. The data shows that all cattle owned by the village were affected by foot and mouth disease.

In contrast, 2004, the number of the cattle was decreased from 200 heads to 20, however, no cattle were said to be infected by Foot and Mouth disease. With the same trend, the number of the sheep and goats has stayed the same. Yet, 8% of the sheep was said to be affected with Enterotoxaemia, 3.5% with Anthrax, 13% with Pasterellosis, 1.6% with Black leg, 12% with Kirm Jiger and 24% of the sheep was suffered sheep pox. However, both results no animal was observed with the diseases and no household offered evidence that any animals had died with the disease. Foot and Mouth and Sheep Pox can not be ruled out in Sheberghan district since this has been a problem in the past, but more evidence is required to support the claim that this disease is still a problem.

No vaccination clinics have occurred in the last six months, though a veterinary clinic and hospital exist in Sheberghan city. Medicines are not available provincially to treat the condition, and vaccination is the most effective way to prevent animal losses.
Livestock Prices

2003 Livestock prices

Jar Qoduq and surrounding villages rely on the Sheberghan city market livestock sales and purchase. As seen on the graphs no significant livestock price changes were noted comparing the results. Both qaraqal sheep and cow prices remained stable from November 2002 until June 2004. However, oxen prices increased between February and January 2004. Goat prices were stable at approximately $150, with seasonal variation. Donkeys are considered the second most important animal to own, and prices tended to remain stable around $220, though some seasonal variation existed.

Grazing land and Access to Water

Jar Qoduq and surrounding area environment is relatively hostile and fragile, and market by the scarcity of water resources. The climatic constraints are severe, and continued reduction in rainfall from one year to another. According to village leaders, access to grazing land has been decreased in the last six months prior to the survey. Grassland productivity has been similar to previous years, whilst access to water has decreased this year. However, water shortages between 1999 and 2002 did play a role in subsequent animal losses. Unfortunately, local authorities were not able to use changes in grassland and water access to predict future threats to livestock. Increased awareness of threats to grazing land access might have allowed communities to protect themselves better against drought related animal losses. In addition, common grazing land is sometimes compromised by illegal cultivation of rainfed wheat. This practice can also compromises community animal stocks.

The risk to lives section of this report highlights areas in the country where individuals are more at risk of dying and understanding the reasons behind this increased risk. It particularly focuses on better understanding the links between nutritional risk, food insecurity and mortality.

Mortality Indicators:

The current crude mortality rate (CMR) of 0.8% is above the previous round data rate of 0.3% in November, 2003. The current rate of 0.8 is not above the emergency threshold rate of 1.0 deaths/10,000 people per day but is above the normal developing country level of 0.5 deaths/10,000 people per day. Furthermore, children under five years of age mortality rate of 3.5 does not compare favourably with the stable developing rate of 1.0 deaths/10,000 people per day and the emergency threshold rate of 2.0 deaths/10,000 people per day.

Because of the high rate of maternal and child mortality in Afghanistan, this study also looked at the number of children who had a skilled birth attendant present at delivery as a proxy for risk to lives of both the mothers giving birth and the new infants. Of the number of children born in the last six months, the percentage of births attended by a skilled birth attendant is 25% similar to that of November 2003. This seems to be not acceptable percentage in this village. This figure, however, is not likely to include stillbirths or children who died during the last four months as a result of the difficulty of obtaining such information.
## RISK TO LIVES INDICATORS

### Mortality Indicators

<table>
<thead>
<tr>
<th>Nov. 2003</th>
<th>June 2004</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>(%)</td>
<td>(%)</td>
<td>(%)</td>
</tr>
<tr>
<td>Crude mortality in last 4/6 months (Deaths / 10,000 / day)</td>
<td>0.3</td>
<td>0.8</td>
</tr>
<tr>
<td>Under 5 mortality in last 4/6 months (Deaths / 10,000 / day)</td>
<td>0.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Births in last 4 months attended by a Skilled Birth Attendant (n=8)</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

### Morbidity Indicators

<table>
<thead>
<tr>
<th>Nov. 2003</th>
<th>June 2004</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>(%)</td>
<td>(%)</td>
<td>(%)</td>
</tr>
<tr>
<td>Children &lt; 5 years with watery diarrhoea (n=25)</td>
<td>35</td>
<td>37</td>
</tr>
<tr>
<td>Children &lt; 5 years with bloody diarrhoea (n=25)</td>
<td>0.0</td>
<td>3.3</td>
</tr>
<tr>
<td>Children &lt; 5 with ARI (n=25)</td>
<td>32.4</td>
<td>47</td>
</tr>
<tr>
<td>Children between 6 and 59 months with measles vaccination (n=21)</td>
<td>65.5</td>
<td>52</td>
</tr>
<tr>
<td>Children &gt; 6 months and &lt;59 months with oedema (n=21)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Children &gt; 6 and &lt;59 months with severe acute malnutrition (n=21)</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Children &gt; 6 and &lt;59 months with moderate acute malnutrition (n=21)</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Children &gt; 1 year and &lt;59 months with a MUAC under 13.5 cm (n=21)</td>
<td>10.3</td>
<td>12</td>
</tr>
<tr>
<td>Children &gt; 1 year and &lt;59 months with a MUAC under 12 cm (n=21)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Child Anthropometric Status (WFH % of median and MUAC)

- **Children with global acute malnutrition (edema/Severe/Moderate)** (n=42) (n=26)
  - 0
  - 17
  - 17
- **Children > 6 months and <59 months with Oedema** (n=21)
  - 0
  - 0
  - 0
- **Children > 6 and <59 months with severe acute malnutrition** (n=21)
  - 0
  - 8
  - 8
- **Children > 6 and <59 months with moderate acute malnutrition** (n=21)
  - 0
  - 8
  - 8
- **Children > 1 year and <59 months with a MUAC under 13.5 cm** (n=21)
  - 10.3
  - 12
  - 1.7
- **Children > 1 year and <59 months with a MUAC under 12 cm** (n=21)
  - 0
  - 0
  - 0

### Adult Women Anthropometric Status

- **Reproductive age women (15-49 years) with a MUAC < 23.0 cm** (n=23)
  - 14.8
  - 26.4
  - 11.6
- **Reproductive age women (15-49 years) with a MUAC < 21.0 cm** (n=23)
  - 0
  - 15
  - 15

### Micronutrient Deficiencies

- **Households with iodised salt (only includes households with salt)** (n=20)
  - 0
  - 45
  - 45
- **Households with salt**
  - 100
  - 100
  - 0

### Morbidity Indicators:

The morbidity indicators included in the surveillance system are associated with a risk of mortality and are the primary causes of death for children under five in Afghanistan. The incidence of watery diarrhoea among children under five years of age in 2003 against 35% in November 2003 survey is still a cause for concern. The incidence of diarrhoea disease might be attributed to hygiene practices and a shortage of water. The percent of children under five suffering from Acute Respiratory Infections of 47% against 32.4 in November 2003 or an increase of 5.4% is serious concern. Measles vaccination coverage in Afghanistan is 95%, and MOH figures for the Darzap/Qostipa district area report coverage to be 100%. WHO and MOH sponsored measles campaigns in Jar Qoduq in June 2003. Additionally, the measles vaccination coverage of 52% in this round of data is not consistent with district figure.

### CHILDREN NUTRITIONAL STATUS:

Current global acute malnutrition 17% against zero% in November 2003 with an increase of 17% is a cause of concern. Children with oedema are at an extremely high risk of dying and in this sample, however, no children were oedematous. In Jar Qoduq, 8% children were severely wasted. However, the percentage of children under five years of age with moderate wasting in this sample is 8 against zero% in November 2003 or an increase of 8% which does require an urgent response.

Low MUAC measurements also indicate children at risk of mortality. The presence of 12% against 10% in November 2003 with an increase of 2% of children with a MUAC lower than 13.5 cm between one to five years of age is a high cause for concern for the village. In this round data no children with a MUAC of less than 12.0 cm was reported for both survey.

### ADULT WOMEN NUTRITIONAL STATUS:

Low MUACs in reproductive-age women has been associated with high child and maternal mortality making it an important indicator for increased risks to adult women mortality. In Jaq Qoduq 26%
of women have a MUAC below 23.0 cm, in contrast 15% of women were reported having a MUAC below 23.0 cm in November 2003 or an increase of 11%. The percentages 15% of women with a MUAC of less than 21.0 cm have reported in this round of data. In addition 27% of women have reported breastfeeding problem.

MICRONUTRIENT DEFICIENCIES:

The presence of iodised salt in the house is a proxy for the use of it and also therefore of iodine deficiency. 45 % of households had iodised salt in this round of data, in comparison, no households had iodised salt as all salt was locally mined block salt during the survey. However, the iodised salt is available in the local market and there is a factory that produces iodised salt in Ghol mahalah, Sheberghan City, Jowzjan province.

HEALTH FACILITIES:

The table below lists the health services and facilities that are available to the people of Jar Qoduq area. However, there were no health facilities in Jar Qoduq itself and all the residents of the neighbouring villages travel to Shabergan City (the provincial capital city) to use the Shabergan City’s health services. Shabergan City has two main hospitals, four comprehensive health centres and a number of private doctors. People travel there with public transportation, the cost of getting to Shabergan City from Jar Qoduq is 4000 Afs.

In Jar Qoduq itself, there are number of traditional birth attendants (TBA) to help the village women with birth deliveries. The birth attendant usually comes to the woman’s house for services. The common custom of TBA in this village and the surrounding areas is that there are no fixed charges for the TBA services and, as such, every household pays what they are able to afford and in accordance with their class in the community. The TBA fee ranges from nothing to 100 Afs and can be in cash or kind. Many households in this village pay to their TBA services using food and non-food items.

All the Government health services in Shabergan City are free of charge, and as a result they are used largely by low and middle income families. The wealthy class of Jar Qoduq and the surrounding area goes to private doctors which charge 40Afs for a visit. Many people believe that the services of a private doctor are better than those of the government and if one is able to afford 40 Afs he/she should go to the private doctor. Medicine needs to be paid for in both cases. There are also skilled birth attendants in Shabergan City hospitals and additionally there is a private service that people may use in the case of severe emergencies or complications. This type of private service is very expensive. Travel to Shabergan is possible in all seasons, including winter.

<table>
<thead>
<tr>
<th>Location of facility</th>
<th>Time taken to reach facility</th>
<th>Cost of getting to the facility (Afs)</th>
<th>Access to facility</th>
<th>Facility Accessible in Winter and Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health posts</td>
<td>Shibilghan</td>
<td>1.5 hour</td>
<td>4000</td>
<td>Everybody</td>
</tr>
<tr>
<td>Basic Health Centre</td>
<td>Shibgharan</td>
<td>1.5 hour</td>
<td>4000</td>
<td>Everybody</td>
</tr>
<tr>
<td>Comprehensive Health Centre</td>
<td>Shibgharan</td>
<td>1.5 hour</td>
<td>4000</td>
<td>Everybody</td>
</tr>
<tr>
<td>Hospital</td>
<td>Shibgharan</td>
<td>1.5 hour</td>
<td>4000</td>
<td>Everybody</td>
</tr>
<tr>
<td>Traditional healers/Birth Attendants</td>
<td>Jar Qoduq</td>
<td>Five minute</td>
<td></td>
<td>Women Only</td>
</tr>
<tr>
<td>Skilled birth attendant</td>
<td>Shibgharan</td>
<td>1.5 hour</td>
<td>4000</td>
<td>Women Only</td>
</tr>
<tr>
<td>Private doctor</td>
<td>Shibgharan</td>
<td>1.5 hour</td>
<td>4000</td>
<td>Everybody</td>
</tr>
</tbody>
</table>

The use of health facilities has stayed the same in the last four months.

WATER SOURCES:

The source of drink water for the village were open wells, hand pumps, purchased water from the outside villages and pool. The quality of the open wells and the hand pumps stayed same whereas the quantity of water decreased.

<table>
<thead>
<tr>
<th>Drinking Water Source Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Source listed in order of use)</td>
</tr>
<tr>
<td>------------------------------</td>
</tr>
<tr>
<td>Open well</td>
</tr>
<tr>
<td>Hand pump</td>
</tr>
<tr>
<td>Buy water</td>
</tr>
<tr>
<td>Pool</td>
</tr>
</tbody>
</table>
There is no specific system of regulating the use of the well water despite the fact that the area is relatively dry. The hand pump was a preferential source of water in comparison to the open wells on account of its water being considered sweet. However, in the last four months, following the summer, the third most important source of water was its purchase. The system is usually that the water carrier needs to be told to get water, and then he takes his cart to the wells that always have water but are far from the village and returns with water; hence it takes time before water can be supplied. The number forth positions in terms of importance for the village are shared between the Cogs/pool built by the GOAL. GOAI has also built the main nine hand pumps that most of the village community were using it. The people report that the quality of the water has not changed since the previous year, but the quantity of underground water is reported to have increased, probably due to the better rainfall. The number one priority for the village is to get more access to good drinking water through the construction of more hand pumps and deep wells with motor pumps.

**Sanitation Facilities:**
There were only two kinds of toilet facility used by the people of Jar Qoduq. The Pit latrine and open field. There are a number of pit latrines, with almost every household having its own latrine in the compound. The community as a whole has built a large number of toilets in the near past and is very aware of the link between disease and sanitation and are making an effort to use only toilets. They are also of the opinion that as it is a very close structured village with not a lot of land between houses, it is important for them to use the pit latrines.

**Livelihood Security – Jar Qoduq**

**Livelihood Strategies:**
The primary income source of most households in Jar Qoduq during the survey period were agricultural crop production, none-agricultural day labour agricultural day labour and collection and sale of natural resources.

As shown in the graph on the right, there are changes in the primary income source in relation with seasonality. The percentage of households that were engaged in non-agricultural day labour trade/shops and livestock production has increased from 7.5% to 28%, from 2.5% to 7.5% and from 5% to 20% in 2004 respectively. In contrast, agricultural day labour and crop production have reduced from 28% to 23% and from 50% to 23% of households in 2004 respectively.

The table below captures the percentage of households engaged in different activities. This provides an indication of the relative importance of different livelihood strategies to the community. With regard to seasonality changes, with exception of those engaged in agricultural day labour and agricultural crops, the rest of activities the percentage of households who were engaged in 2003 have been increased in 2004.

<table>
<thead>
<tr>
<th>N=20 Households</th>
<th>% of households with Income Source</th>
<th>% of households with Women’s Income Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2003</td>
<td>2004</td>
</tr>
<tr>
<td>Spinning/ carpets labour</td>
<td>17.5</td>
<td>25</td>
</tr>
<tr>
<td>Agricultural day labour</td>
<td>63</td>
<td>48</td>
</tr>
<tr>
<td>Agricultural livestock</td>
<td>37.5</td>
<td>43</td>
</tr>
<tr>
<td>Trade / Shops</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Take a loan</td>
<td>45</td>
<td>63</td>
</tr>
<tr>
<td>Agricultural crops</td>
<td>75</td>
<td>50</td>
</tr>
<tr>
<td>Non-agriculture day labour</td>
<td>40</td>
<td>55</td>
</tr>
<tr>
<td>Collection–natural resources</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Informal wage labour</td>
<td>5.0</td>
<td>10</td>
</tr>
<tr>
<td>Gifts/Gleaning</td>
<td>7.5</td>
<td>25</td>
</tr>
</tbody>
</table>
Data regarding women's income activities can clarify the role of women in current livelihood strategies and identify potential for future involvement. In 2003 women's income activities were only carpets, agricultural livestock, trade and shops, and collection and sale of natural resource. However, in 2004, agricultural day labour and non-agricultural labour, collection –natural resources, use loans, crop production were popular income sources for "poor" and "middle" income women households. Interestingly, women tended to see activities associated with men as less important. However, all women received money from gifts/gleaning, yet men of all wealth groups did not consider these a source of income. Female headed households were very poor. The main problem is illiteracy, unemployment, poor infrastructure, lack of resources. A number of widows have received wool material from GOAL for making gillams and carpets.

**EMBROIDERY, CARPETS, GILIMS, WOOL and SILK SPINNING:**

In 2003, 35% of women participate in carpet weaving whereas, in 2004, 45% of women were engaged in carpet weaving as an income source. Of these households, most (30%) were from the poor, (12.5%) middle and (2.5%) were from the wealthy households. Households were normally given material by an investor who then paid wages based on the length and intricacy of the carpet completed. Twenty widows received wool from GOAL for making gillams, and have sold these and have now finished making their second rugs.

The average income by activity is listed in the table on the right. The percentage of households that was engaged in carpet/Gilims has stated the same. In contrast, the percentage of households that was engaged in wool spinning has increased from 30% to 47.5% with an increase of 17.5%, whereas the percentage of households that was engaged in handicrafts has decreased from 12.5 to 7.5 with a drop of 5%.

On the same line, the average income earned from the wool spinning has decreased by 47 afs. In contrast, the average income earned from the handicraft and carpet/Gilims have increased from 750 afs to 1933 afs with an increase of 61% and from 2000 afs to 3000 afs with an increase of 33% respectively.

**COLLECTION AND SALE OF NATURAL RESOURCES**

In 2003, 70% of households were involved in the collection and sale of natural resources. In contrast, 100% of households were engaged in collection and sale of natural resources. All wealth households groups have collected and sold bushes. Livelihood activities were negatively impacted by recent drought. Lack of rain meant that bushes did not grow as well, and fewer animals led to a reduced amount of dung available for collection. The future availability of these resources did not appear to be compromised since animal stocks would be replenished, and bushes are cut above the root system so that they would grow again after the rains. Despite the drought, bush prices have remained stable, but fewer households collect this resource as market rates for day labour are more profitable for households.

**LIVELIHOOD SHOCKS:**

**GENERAL LIVELIHOOD SHOCKS or CONSTRAINTS:**

The graph on the right shows that none of the household's income has increased for the last six months to compare year ago. In the previous year, 5% of households' incomes stayed the same, whereas 2.5% of households' income stayed the same for the past six months. Furthermore, 95% of households reported income decrease in the last six month to compare 92.5% of year ago. Households with steady incomes did not share similar livelihoods, thus it does not appear that a specific shock is responsible. Instead, this might be normal variation.
Crop production and agricultural daily labour:

Agricultural labour throughout the year brings in a wage of between 75 to 200 afs per day, but during the harvest, instead of a daily wage in cash, people are paid in wheat. Crop production and daily labour were the main sources of income and have a major impact on the livelihood of the "poor" Jar Qoduq households.

The graph on the right demonstrates the percentage of households of all wealth groups engaged in crop production and agriculture labour. None of the wealthy households were engaged in agricultural daily labour in 2004 compared to that 80% of households in 2003. Less (28%) poor households and less (27%) middle households were engaged in crop production in 2004 compared to 2003. Yet, more (15%) poor and (17.5%) middle of new households were involved agricultural daily labour in 2004 compared to 2003.

Assessment of crop losses

In Jar Qoduq 41% of households reported 20-50% of crop losses. Yet, none of the households reported more than 20-50% of crop losses. However, it seems the crop losses were specific to irregular rainfall and Sunn pest attack in most districts of Jawzjan province in the six months prior to the survey. The Sunn pest invasions occurred in most districts of the province from March onwards, continuously almost until harvest time. The output or wheat yield was reduced substantially following the attacks and poor rainfall, particularly in Sheberghan district.

LIVESTOCK:

Grazing land also sustained quite serious damage following the Sunn pest and shortage of rain fall in 2004. At the moment, there is hardly any pasture in the province and the cattle are beginning to lose weight. In consequence, distress sales together with low demands may lead to low cattle prices. Reflecting the poor quality of pastures which were seriously affected by both locust and poor rainfall in many parts of the area, animals are in poor condition. As early in January 2004, some households started selling 146 live sheep and 22 goats, 1 cow and 33 sheep and 59 goats were killed in the last six months in order to avoid losses. Livestock does need to be replenished through longer-term breeding programmes, credit initiatives, loans or other schemes that will allow the farmer access to funds to purchase new animals.

Shocks to non- Agricultural

Non-Agricultural Labour (skilled and unskilled manual labour)

In Jar Qoduq, 55% of households claimed manual labour as an income sources in 2004 against only 30% of households in 2003.

The graph on the right shows household participation in non-agriculture day labour across wealth rankings. The percentage of "wealthy" households that was engaged in non-agricultural daily labour has stayed the same. More (5%) of the middle and more (20%) of poor households were engaged in non-agricultural day labour in 2004 compared to 2003.
OTHER INCOME SOURCES

The only other main income sources in Jar Qoduq were loans. Loans were a major source of income for 63% of the households. Most (40%) households with loans were "poor" (17.5%) middle and (5%) were from the middle households.

Gifts/Gleaning

Ten households have reported gifts/gleaning as income in 2004, whereas three households reported an income from gifts and gleaning in 2003. Of these households, eight were from the poor and two were from the middle income households.

Coping strategies

The coping strategies included here are by no means inclusive of all strategies invoked by households to survive tough times; instead, it focuses on behaviours predictive of declining livelihood and food security in Afghanistan that can be easily measured.

The list was divided into erosive and non-erosive coping strategies in order to understand impacts on households’ future livelihood security. The division is not mutually exclusive as the loss of a bicycle, motorcycle or car may also impact future opportunities. Similarly, the order of the list does not reflect a continuum of behaviour. The coping strategies listed are meant to be general indicators of a worsening situation, however, households experiencing chronic and transitory poverty who engage in these activities on a regular basis.

None Erosive coping strategies

In order to meet their expenses, less (2.5%) households sold non-productive assets such as gillams, carpets in 2004 compared to 2003. Less (30%) households have engaged in longer hours of work in 2004 compared to 2003. More (2.5%) household members migrated for labour in 2004 than in 2003. Food consumption patterns and sources of food are also key indicators of household vulnerability. More (5%) households interviewed had been eating dried bread in 2004 compared to 2003. In addition to changes in food consumption, most of the families needed external support to food needs. 82% of the families had to borrow food from their relatives in order to make a meal in the last six months and the data shows a drop of 11% in 2004 compared to 2003.

Erosive and distress coping strategies

It is apparent that strategies adapted by households to deal with shocks varied with individuals, households and villages. In Jar Qoduq, 63% of households use loans as a coping strategy, whereas 45% use loans as coping strategy to meet daily expenses in 2003, with an increase of 18%. In the same way, up to 80% of the households took food on credit in 2003, whereas 63% took food on credit from local shops in 2004 with an increase of 17%. Still, it is apparent that both “poor” and “middle” households are extremely vulnerable as they jeopardize future production capacity to cover immediate needs.

Income Diversity and Capacity to Cope – Risk to Livelihoods

Household capacity to absorb shocks and to adapt stresses, unemployment and complex emergencies such as political crisis. However, households with various income sources are better able to cope than households who rely on one or two income sources. The income diversity score is simply a count of the number of income sources for each household. In Jar Qoduq, households had an average income diversity score of 3.6 in 2003, whereas the score have slightly increased to 4.4. In many cases the wealthier household often scores higher income diversity measures, however, in this situation all wealth groups’ households have similar diversity score. All wealth groups’ diversity score has increased slightly in 2004 relative to 2003.
SUMMARY FINDINGS FOR TURKMAN QODUQ SENTINEL SITE IN DARZAP/QOSHTAPA DISTRICT
(These findings are based on field survey of 20 households and ‘Turkman Qoduq village leaders’ interview. These findings should not be assumed to representative of other parts of Afghanistan)

Food Security
- The availability of adequate supply of water for human and livestock consumption is a major recurring problem for most households. Reflecting the poor quality of pastures which were seriously affected by poor rainfall in many parts of the area, animals are in poor condition.
- More (20%) households felt they were not able to buy/cultivate enough food in the past six months and 45.5% households consider that food situation was worse than one year ago. 7.5% households felt they were not able to buy/cultivate enough food for the past six months. On average all households combined had a dietary diversity score of 2.7 against 2.1 in 2003 and with an increase of dietary diversity by 0.6 in 2004.

Risk to Lives
- The crude mortality rate is not above the emergency threshold rate of deaths people per day but is above the normal developing country level of deaths people per day. Furthermore, for children under five years of age, the mortality rate does not compare favorably with the stable developing country rate and the emergency threshold rate of deaths people per day. The current rate of water, bloody diarrhea and the acute respiratory infections of children under five years of age is serious concern for the village.

Livelihood Security
- None of the household’s income has increased for the last six months to compare year ago.
- In 2004, informal wage labour and non-agricultural labour, collection of natural resources and use loans, were popular income sources for “poor” and “middle” income women households.

What is the NSS?
The National Surveillance System monitors trends in key indicators in order to predict early signs of change and deterioration in livelihoods, food security and nutrition. In conjunction with other complementary data collection systems, the NSS provides relevant data for prioritizing limited resources and designing programs.

Methodology
The NSS is based on a sentinel site system, in which provincial level ministries follow a rotating cohort of households’ overtime. Sites are selected so that they mirror the majority of the communities with respect to agro-ecological features, economic activities, available services and people in a given area (livelihood / agro-ecological zone). Because of the diversity of livelihoods in Afghanistan, even in rural areas, information from the sentinel may not be representative of every village in the zone. However, it is likely, that the data from one sentinel site can signal concern for other villages in the same zone (See Annex I for detailed information on methodology).
FOOD SECURITY – Turkman Qoduq

FOOD SECURITY PERCEPTION
In 2003, 10% of households considered the food situation worse than four months ago. Whereas 7.5% of households consider that food situation was worse than one year ago. Furthermore, 17.5% of households felt they were not able to buy/cultivate enough food in the past four months. Nonetheless, 80% did worry about how they would purchase/cultivate food. None of the interviewed households thought the food security would worsen over the next four months, though many expressed uncertainty about how they could predict changes in food security in their home. Enumerators observed that 15% of did not appear to have enough food to survive the winter.

In contrast in 2004, more (20%) households felt they were not able to buy/cultivate enough food in the past six months and 45.5% households consider that food situation was worse than one year ago. Furthermore, 33% did worry about how they would purchase/cultivate food and 10% of the interviewed households thought the food security would get worse over the next six months, though many expressed uncertainty about how they could predict changes in food security in their home. Enumerators observed that more 10% of households (mainly poor households) did not appear to have enough food to survive for the next for months.

<table>
<thead>
<tr>
<th>PERCEPTION OF FOOD SECURITY INDICATORS</th>
<th>2003 (%)</th>
<th>2004 (%)</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider food situation to be worse in comparison to 4/6 months ago</td>
<td>10</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Consider food situation to be worse than one year ago</td>
<td>7.5</td>
<td>53</td>
<td>45.5</td>
</tr>
<tr>
<td>Considered food situation not to be sufficient at time of survey</td>
<td>17.7</td>
<td>35</td>
<td>17.3</td>
</tr>
<tr>
<td>Worried where their food was coming at the time of survey</td>
<td>80.0</td>
<td>47</td>
<td>33</td>
</tr>
<tr>
<td>Expect the food situation to be worse in the next 4/6 months</td>
<td>0</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Enumerators thought households did not have enough food for the next 4/6 months</td>
<td>15</td>
<td>25</td>
<td>10</td>
</tr>
</tbody>
</table>

DIETARY DIVERSITY – DIET QUALITY
Household dietary diversity scores are summarized in the graph on the right. The diversity score is calculated by attributing a score of “1” to each food group that was eaten at least once weekly by a household. Households with a higher diversity score have a more diverse diet. Surveys repeated throughout the country indicate that most households consume cereals or grains on a daily basis and thus, cereals were not included in the diet diversity score. On average all households combined had a dietary diversity score of 2.7 against 2.1 in 2003 and with an increase of dietary diversity by 0.6 in 2004.

The histogram on the right shows that in 2004, most households (12 and 12 households) scored "1" and "3" respectively. In contrast, in 2003, 15 households scored "0" and 13 households scored "1". Furthermore, in both years, no household scored "7". Diversity scores are relatively or slightly different between Wealth groups. “Wealthy” group scored of 2.5 against 1.8 in 2003 whereas “middle” scored 3.1 against 1.6 in 2003 and poor wealth group score 2.5 against 0.9 in 2003. These results suggest that middle households either have the means to buy more expensive foods or, do acquire a preference for a more diverse diet.
The graph on the right reflects the average frequency of consumption for food. The data shows that all households are eating protein rich foods (meat, milk, eggs and pulse) at least once a month to once a week to complement cereals (wheat and barley). However, the data indicate a slightly increase on dairy product pulses and green vegetables consumption in 2004 and this could well be a seasonal change. However this data does not allow inferences regarding protein sufficiency.

As the data regarding quantities and consumption practices were not collected, no inferences can be made regarding the adequacy of vitamin and mineral intakes. Nonetheless, this data suggests that the areas that need additional research include:

1. Vitamin A sufficiency (animal sources and beta-carotene from plant sources);
2. Calcium sufficiency (milk and water, most water is hard, sources), and;
3. Vitamin C sufficiency (fresh plant sources).

These concerns are based on the frequency of consumption reported by households and the limited availability of these foods compared to other items.

**MARKET ACCESS**

Sheberghan city is the closest food market to Qanjogha, accessible by highway (two hours by foot or donkey). The road is part of the Afghanistan Northern only highway and is in relatively good condition. According to this survey, some travel by vehicle (10 Af's per trip) but this cost may vary according to the person's location in the village. Most Qanjogha residents access Sheberghan market to trade wheat and livestock, and also purchase food and non-food items. The largest trade by women is carpet sales. Market transactions are cash based and most households send one person to the market on market day (Mondays and Thursdays, weekly). The market is open year-round and is one of the most important trading for local districts, Jawzjan and the surrounding provinces.

As shown on the graphs, no significant price changes have shown from both surveys. Wheat and green tea prices have been stable both years. However, daily labour rates increased from March 2003 reaching a peak of 200 Af's per day in June. Rates then began decreasing on November. The same trends held for both rice and mutton. Rice prices reached a peak of 220 Af's per Kg from January, June and November 2003 and January 2004. Mutton prices reached a maximum price of 150 Af's in January, March and November 2003. Mutton and rice increases directly impact village food security.
since these are staple food items. Households also purchase vegetable items (potatoes, spring onions, okra and carrots) from Sheberghan market: prices have remained steady. There are seasonal shortages of some vegetables, though this does not seem to impact vegetable prices nor is demand increased during off-season. Households simply purchase what is available at that time in the market.

LIVESTOCK

The availability of adequate supply of water for human, livestock consumption, and for crops is a major recurring problem for most households. Livestock, particularly cattle rearing, traditionally holds a major economic and social place in the region as it provides 30% of households income sources. However, animal numbers fluctuate widely from one year to another as most people tend to invest their savings in livestock in good years while the sale of animals acts as a cushion during the years of poor harvest.

As shown the table on the right, even though in many parts of Jawzan the livestock has been hit by the destruction of grazing land caused by drought. In Turkman Qoduq the percent of household owning livestock (sheep, cows and goats) has increased while the average number of livestock per household has decreased in 2004 comparing to 2003.

Livestock ownership is a source of income for 77.5% households in the area. Of these households, 5% were from "wealthy", 50 % poor and 22.5% were from "middle" income households.

As indicated the graph on the right the percentage of wealth group households own animals have increased in 2004 in comparison with 2003. More (8% and 4%) and (3% and 14%) of middle and poor households own sheep and goats in 2004 respectively. Furthermore, in 2004, more 2% of new middle and 42 poor households have own donkey. However, the percentage of households owning camel has increased for all households.

Livestock disease

When asked about prevalence livestock diseases, the male village leaders noted that their sheep and goats were affected by Sheep Pox and their cattle had foot and mouth disease. In 2003, a total of 1000 sheep and goats were owned by the people of Turkman, with 200 reportedly affected by Enterotoxaemia. In contrast, in 2004 the total number of goats and sheep were said to be 850 heads and 99% were said to be affected by Enterotoxaemia (19%), Pasterellosis (2.9%), Black leg (35%), Krim Jiger (15%) and Sheep box (27%). No vaccination has occurred in the last six months, though a veterinary clinic and hospital exist in Sheberghan city. Medicines are not available provincially to treat the condition, and vaccination is the most effective way to prevent animal losses.

Livestock Prices

Turkman and surrounding villages rely on the Sheberghan city market for livestock sales and purchase.

As seen on the graphs no significant livestock price changes were noted comparing the surveys data. Both qaraqal sheep and cow prices remained stable from November 2002 until June 2004. However, oxen prices increased between February and January 2004. Goat prices were stable at
approximately $150, with seasonal variation. Donkeys are considered the second most important animal to own, and prices tended to remain stable around $220, though some seasonal variation.

Grazing land and Access to Water
Turkman Qoduq and the surrounding, environment is relatively hostile and fragile, and market by the scarcity of water resources. The climatic constraints are severe, and continued reduction in rainfall from one year to another. According to village leaders, access to grazing land has been decreased in the last six months prior to the survey. Grassland productivity has been similar to previous years, whilst access to water has decreased this year. However, water shortages between 1999 and 2002 did play a role in subsequent animal losses. Unfortunately, local authorities were not able to use changes in grassland and water access to predict future threats to livestock. Increased awareness of threats to grazing land access might have allowed communities to protect themselves better against drought related animal losses. In addition, common grazing land is sometimes compromised by illegal cultivation of rainfed wheat. This practice can also compromises community animal stocks.

The risk to lives section of this report highlights areas in the country where individuals are more at risk of dying and understanding the reasons behind this increased risk. It particularly focuses on better understanding the links between nutritional risk, food insecurity and mortality.

Mortality Indicators:
The current crude mortality rate (CMR) of 0.7% is less than the previous crude mortality rate in November, 2003. The current rate of 0.7% is not above the emergency threshold rate of 1.0 deaths/10,000 people per day but is above the normal developing country level of 0.5 deaths/10,000 people per day. Furthermore, children under five years of age mortality rate of 2.6% does not compare favourably with the stable developing rate of 1.0 deaths/10,000 people per day and the emergency threshold rate of 2.0 deaths/10,000 people per day.
Because of the high rate of maternal and child mortality in Afghanistan, this study also looked at the number of children who had a skilled birth attendant present at delivery as a proxy for risk to lives of both the mothers giving birth and the new infants. Of the number of children born in the last six months, the percentage of births attended by a skilled birth attendant is 16% against zero % in November 2003. This seems to be not acceptable percentage in this village. This figure, however, is not likely to include stillbirths or children who died during the last four months as a result of the difficulty of obtaining such information.

### RISKS TO LIVES INDICATORS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Nov. 2003 (%)</th>
<th>June 2004 (%)</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality Indicators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude mortality in last 4/6 months (Deaths / 10,000 / day)</td>
<td>1.3</td>
<td>0.7</td>
<td>0.5</td>
</tr>
<tr>
<td>Under 5 mortality in last 4/6 months (Deaths / 10,000 / day)</td>
<td>3.4</td>
<td>2.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Births in last 4 months attended by a Skilled Birth Attendant (n=8)</td>
<td>0</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Morbidity Indicators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children &lt; 5 years with watery diarrhoea (n=37)</td>
<td>13</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Children &lt; 5 years with bloody diarrhoea (n=37)</td>
<td>8.9</td>
<td>28</td>
<td>19.1</td>
</tr>
<tr>
<td>Children &lt; 5 with ARI (n=36)</td>
<td>4.3</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Children between 6 and 59 months with measles vaccination (n=37)</td>
<td>74</td>
<td>57</td>
<td>17</td>
</tr>
<tr>
<td>Child Anthropometric Status (WFH % of median and MUAC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children with global acute malnutrition (Oedema/Severe/Moderate) (n=42)</td>
<td>13</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Children &gt; 6 months and &lt;59 months with moderate acute malnutrition (n=21)</td>
<td>6.5</td>
<td>2.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Children &gt; 6 and &lt;59 months with severe acute malnutrition (n=21)</td>
<td>4.3</td>
<td>5.7</td>
<td>1.4</td>
</tr>
<tr>
<td>Children &gt; 6 and &lt;59 months with moderate acute malnutrition (n=21)</td>
<td>16</td>
<td>23</td>
<td>7</td>
</tr>
<tr>
<td>Children &gt; 1 year and &lt;59 months with a MUAC under 13.5 cm (n=21)</td>
<td>6.8</td>
<td>2.9</td>
<td>3.9</td>
</tr>
<tr>
<td>Adult Women Anthropometric Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reproductive age women (15-49 years) with a MUAC &lt; 23.0 cm (n=23)</td>
<td>4.4</td>
<td>6.4</td>
<td>2</td>
</tr>
<tr>
<td>Reproductive age women (15-49 years) with a MUAC &lt; 21.0 cm (n=23)</td>
<td>8.9</td>
<td>28</td>
<td>19.1</td>
</tr>
<tr>
<td>Micronutrient Deficiencies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Households with iodised salt (only includes households with salt) (n=40)</td>
<td>0</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Households with salt</td>
<td>100</td>
<td>100</td>
<td>0</td>
</tr>
</tbody>
</table>

Indicates a less serious concern. Many of the cases of diarrhoeal disease might be attributed to hygiene practices and a shortage of water. The percent of children under five suffering from Acute Respiratory Infections of 53% against 35% in November, 2003 or an increase of 18% is serious concern.

Measles vaccination coverage in Afghanistan is 95%, and Ministry of Health (MOH) figures for the DARZAP district report coverage was 100%. World Health Organization (WHO) and Ministry of Health (MOH) sponsored measles vaccination campaigns in Darzap/Khoshtapa in June, 2003. Additionally, the measles vaccination coverage of 57% against 74% coverage in November 2003 is not inconsistent with other figures.

### CHILDREN NUTRITIONAL STATUS:

Current global acute malnutrition of 11% against 13% in November 2003 with a drop of 2%. Children with oedema are at an extremely high risk of dying and in this sample, however, 2.8% children were oedematous against 2.1% in November 2003 round data. In Turkman, 2.9% children were severely wasted. However, the percentage of children under five years of age with moderate wasting in this sample is 5.7% against 4.3 % in November 2003 with an increase of 1.4% which does require an urgent response.

Low MUAC measurements also indicate children at risk of mortality. The presence of 23 % against 16 % in November, 2003 or a drop of 7 % of children with a MUAC lower than 13.5 cm between one to five years of age is a high cause for concern for the village. In this round data 2.9% of children with a MUAC of lower than 12.0 cm was reported compared to 6.8% in November 2003 children with a drop of 3.9%.
ADULT WOMEN NUTRITIONAL STATUS:
Low MUACs in reproductive-age women has been associated with high child and maternal mortality making it an important indicator for increased risks to adult women mortality. In Turkman Qodoq 28% of women have a MUAC below 23.0 cm, in contrast 6.9% of women were reported having a MUAC below 23.0 cm in November, 2003 or an increase of 21.1%. The percentages 6.4 of women with a MUAC of less than 21.0 cm against 4.4% of women with a MUAC of less than 21.0 cm in November 2003 with an increase of 2%. In addition 19% of women have reported breastfeeding problem.

MICRONUTRIENT DEFICIENCIES:
The presence of iodised salt in the house is a proxy for the use of it and also therefore of iodine deficiency. 45% of households had iodised salt in this round of data, in comparison, no households had iodised salt as all salt was locally mined block salt during the survey. However, the iodised salt is available in the local market and there is a factory that produces iodised salt in Ghol mahalah, Sheberghan City, Jowzjan province.

HEALTH FACILITIES:
The table below lists the health services and facilities that are available to the people of the Turkman Qodoq village. However, there are no health facilities in Turkman Qodoq itself and all the residents of the neighbouring villages travel to Shaberghan City (the provincial capital city) to use the Shaberghan City’s health services or Khoshtpa clinic that was built by Goal (Irish NGO). Shabarghan City has two main hospitals, four comprehensive health centres and 30 private doctors.

In Turkman Qodoq itself, there are number of traditional birth attendants (TBA) to help the village women with birth deliveries. The birth attendant usually comes to the woman’s house for services. The common custom of TBA in this village and the surrounding areas is that there are no fixed charges for the TBA services and, as such, every household pays what they are able to afford and in accordance with their class in the community. The TBA fee ranges from 0 to 100 Afs and can be in cash or kind. Many households in this village pay to their TBA services using food and non-food items.

All the Government health services in Shabergan City are free of charge, and as a result they are used largely by “poor” and “middle” income families. The “wealthy” class of Turkmaqodoq and the surrounding area goes to private doctors which charge 40 Afs for a visit. Many people believe that the services of a private doctor are better than those of the government and if one is able to afford 40 Afs he/she should go to the private doctor. Medicine needs to be paid for in both cases. There are also skilled birth attendants in Shabergan City hospitals and additionally there is a private service that people may use in the case of severe emergencies or complications. This type of private service is very expensive. Travel to Shaberghan is possible in all seasons, including winter. The use of health facilities has stayed steady in the last four months.

Health Facilities Table

<table>
<thead>
<tr>
<th>Location of facility</th>
<th>Time taken to reach facility</th>
<th>Cost of getting to facility (Afs)</th>
<th>Access to facility</th>
<th>Facility Accessible in winter and Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health posts</td>
<td>Sheberghan</td>
<td>2 hours</td>
<td>4000</td>
<td>Everybody</td>
</tr>
<tr>
<td>Basic Health Centre</td>
<td>Sheberghan</td>
<td>2 hours</td>
<td>4000</td>
<td>Everybody</td>
</tr>
<tr>
<td>Comprehensive Health Centre</td>
<td>Sheberghan</td>
<td>2 hours</td>
<td>4000</td>
<td>Everybody</td>
</tr>
<tr>
<td>Hospital</td>
<td>Sheberghan</td>
<td>2 hours</td>
<td>4000</td>
<td>Everybody</td>
</tr>
<tr>
<td>Traditional healers/Birth Attendants</td>
<td>Turkman Qodoq</td>
<td>30 minutes</td>
<td>--</td>
<td>Women Only</td>
</tr>
<tr>
<td>Skilled birth attendant</td>
<td>Sheberghan</td>
<td>2 hours</td>
<td>4000</td>
<td>Women Only</td>
</tr>
<tr>
<td>Private doctor</td>
<td>Sheberghan</td>
<td>2 hours</td>
<td>4000</td>
<td>Everybody</td>
</tr>
</tbody>
</table>
WATER SOURCES:

Water remains the area’s biggest concern, in terms of safe drinking water and water to rebuild livestock numbers. These communities travel long distances to collect spring water, however much water is wasted and contaminated by activities further up-stream. In areas where there are no springs - water harvesting and management infrastructure for rain and river water is currently inadequate.

The source of drink water for Turkmanqodoq village was an open wells and most of households in Turkman Qodoq purchased water from the outside villages. The quality of the open wells stayed same whereas the quantity of water decreased. During the survey and after the survey Goal (Irish NGO) built six hand pumps and is a preferential source of water in comparison to the open wells on account of its water being considered sweet.

The people report that the quality of the water has not changed since the previous year, but the quantity of underground water is reported to have increased, probably due to the better rainfall. The number one priority for the village is to get more access to good drinking water through the construction of more hand pumps/ or deep wells with motor pumps (as the Andkhoy region has a reliable source of electricity)

SANITATION FACILITIES:

There is no toilet facility used by the people of Turkman Qodoq. People use an open field and this is one of the major causes of public health problems in the village.

LIVELIHOOD SECURITY – Turkman Qoduoq

Livelihood Strategies:

The primary income source of most households in Turkman Qoduoq during the survey period were agricultural crop production, none-agricultural day labour agricultural day labour and collection and sale of natural resources,

As shown in the graph on the right, there are changes in the primary income source in relation with seasonality. The percentage of households that were engaged in agricultural day labour and livestock production has increased from 30% to 38% and from 42.5% to 48% in 2004 respectively. In contrast, non-agricultural day labour and caret weaving have reduced from 12.5% to 7.5% and from 7.5% to 2.5% of households in 2004 respectively.

The table below captures the percentage of households engaged in different activities. This provides an indication of the relative importance of different livelihood strategies to the community. With regard to seasonality changes, with exception of those engaged in agricultural day labour and agricultural crops, the rest of activities the percentage of households who were engaged in 2003 have increased in 2004.

<table>
<thead>
<tr>
<th>Drinking Water Source Table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drinking Water Source Table</strong></td>
</tr>
<tr>
<td>(Source listed in order of use)</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>Buy water</strong></td>
</tr>
<tr>
<td><strong>Hand pump</strong></td>
</tr>
<tr>
<td><strong>Open well</strong></td>
</tr>
</tbody>
</table>
Data regarding women’s income activities can clarify the role of women in current livelihood strategies and identify potential for future involvement. In 2003 women’s income activities were only agricultural day labour, carpets, agricultural livestock, trade and shops, and collection and sale of natural resource. However, in 2004, non-agricultural daily labour and informal wage labour were also popular income sources for “poor” and “middle” income women households. Interestingly, women tended to see activities associated with men as less important. However, all women received money from gifts/gleaning, yet men of all wealth and middle groups did not consider these a source of income. Female headed households were very poor. The main problem is illiteracy, unemployment, poor infrastructure, lack of resources. A number of widows have received wool material from GOAL for making gillams and carpets.

**EMBROIDERY, CARPETS, GILIMS, WOOL and SILK SPINNING:**
Carpet weaving is engaged for both income generation and household consumption. In 2003, carpet making was source of income for 40% of men households where, carpet weaving for business was an income for 15% of households. In comparison, women’s data, carpet making for wage is an income for 30%, while carpet weaving for a business is an income for 17.5% of households.

In contrast, in 2004, 40% of men households and 22.5 of women’s households were involved making carpets (carpet weaving, embroidery, silk and wool material). Furthermore, 55% of men households and 65% of women’s households were engaged carpet weaving for wage. Households were normally given material by an investor who then paid wages based on the length and intricacy of the carpet completed. 86 households and twenty widows have received wool from GOAL for making gillams, and have sold these and have now finished making their second rugs.

The average income by activity is listed in the table on the right. The percentage of households that was engaged in carpet/Gilims and wool spinning have increased. In contrast, the percentage of households that was engaged in handicrafts has decreased by 5%. On the same line, the average income earned from the wool spinning and carpets/Gilims has increased by 219 Afs and by 540 Afs respectively. In contrast, the average income earned from the handicraft has decreased by 37%.

**COLLECTION AND SALE OF NATURAL RESOURCES**

In 2003, 95% of households were involved in the collection and sale of natural resources. In contrast, 97.5% of households were engaged in collection and sale of natural resources. All wealth households groups have collected and sold bushes. Livelihood activities were negatively impacted by recent drought. Lack of rain meant that bushes did not grow as well, and fewer animals led to a reduced amount of dung available for collection. The future availability of these resources did not appear to be compromised since animal stocks would be replenished, and bushes are cut above the root system so that they would grow again during the raining seasons. Despite the drought, bush prices have remained stable, but fewer households collect this resource as market rates for day labour are more profitable for households.
LIVELIHOOD SHOCKS:

GENERAL LIVELIHOOD SHOCKS or CONSTRAINTS:

The graph on the right shows that none of the households' income has increased for the last six months to compare year ago. In the previous year, 13% of households' incomes stayed the same, whereas 22.5% of households' income stayed the same for the past six months. Furthermore, 75% of households reported income decrease in the last six month to compare 85% of household in one year ago. Households with steady incomes did not share similar livelihoods, thus it does not appear that a specific shock is responsible. Instead, this might be normal variation.

Assessment of livestock losses:
Grazing land also sustained quite serious damage following the Sunn pest and shortage of rain fall in 2004. At the moment, there is hardly any pasture in the province and the cattle are beginning to lose weight. In consequence, distress sales together with low demands may lead to low cattle prices. Reflecting the poor quality of pastures which were seriously affected by poor rainfall in many parts of the area, animals are in poor condition. As early in January 2004, some households started selling 235 live goats and 42 sheep, on the same line one sheep and 5 goats were killed in order to avoid losses. Animal livestock does need to be replenished through longer-term breeding programmes, credit initiatives, loans or other schemes that will allow the farmer access to funds to purchase new animals.

Shocks to non- Agricultural

Non-Agricultural Labour (skilled and unskilled manual labour)

In Turkman Qoduq, 55% of households claimed manual labour as an income sources in 2004 against only 45% of households in 2003. The graph on the right shows household participation in non-agriculture day labour across wealth rankings. None of the "wealthy" households was engaged in non-agricultural daily labour in 2004. Less (2.5%) of the middle and more (17.5%) of new poor households were engaged in non-agricultural day labour in 2004 compared to 2003.

OTHER INCOME SOURCES
The only other main income sources in Turkman Qoduq were loans. Loan was a major source of income for 55% of the households. Most (40%) households with loan was "poor", (12.5%) middle and (2.5%) were from the middle households.

Gifts/Gleaning
32.5% of households have reported gifts/gleaning as income in 2004, whereas 27.5% of households reported an income from gifts and gleaning in 2003. Of these households, 30% were from were from the poor and 2.5% were from the middle income households.
Coping strategies

The coping strategies included here are by no means inclusive of all strategies invoked by households to survive tough times; instead, it focuses on behaviours predictive of declining livelihood and food security in Afghanistan that can be easily measured. The list was divided into erosive and non-erosive coping strategies in order to understand impacts on households' future livelihood security. The division is not mutually exclusive as the loss of a bicycle, motorcycle or car may also impact future opportunities. Similarly, the order of the list does not reflect a continuum of behaviour. The coping strategies listed are meant to be general indicators of a worsening situation, however, households experiencing chronic and transitory poverty who engage in these activities on a regular basis.

<table>
<thead>
<tr>
<th></th>
<th>2003 (%)</th>
<th>2004 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household member migrated for labour</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Sold Carpet / Gilims from the house</td>
<td>12.5</td>
<td>12.5</td>
</tr>
<tr>
<td>Household members worked more hours to make daily expenses</td>
<td>50</td>
<td>27.5</td>
</tr>
<tr>
<td>Households who borrowed food from relatives to make a meal</td>
<td>92.5</td>
<td>72.5</td>
</tr>
<tr>
<td>Households who had been consuming dried bread</td>
<td>5.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Household took out loan</td>
<td>20</td>
<td>55</td>
</tr>
<tr>
<td>Household who took food on credit from local shop</td>
<td>75</td>
<td>41</td>
</tr>
</tbody>
</table>

patterns and sources of food are also key indicators of household vulnerability. Less (2.5%) households interviewed had been eating dried bread in 2004 compared to 2003. In addition to changes in food consumption, most of the families needed external support to food needs. 72.5% of the families had to borrow food from their relatives in order to make a meal in the last six months and the data shows a drop of 20% in 2004 compared to 2003.

Erosive and distress coping strategies

It is apparent that strategies adapted by households to deal with shocks varied with individuals, households and villages. In Turkman, 55% of households use loans as a coping strategy, whereas 20% use loans as coping strategy to meet daily expenses in 2003, with an increase of 35%. In the same way, up to 41% of the households took food on credit in 2003. In contrast, 75% took food on credit from local shops in 2004 with an increase of 34%. Still, it is apparent that both "poor" and "middle" households are extremely vulnerable as they jeopardize future production capacity to cover immediate needs.

Income Diversity and Capacity to Cope

Household’s capacity to absorb shocks and to adapt stresses induced by climate, price instability, unemployment and complex emergencies such as political crisis. However, households with various income sources are better able to cope than households who rely on one or two income sources. The income diversity score is simply a count of the number of income sources for each household. In Turkman Qoduq, households had an average income diversity score of 4.2 in 2003, whereas the score have slightly increased to 5.0 in 2004. In many cases the wealthier household often scores higher income diversity measures, however, in this situation poor households have higher diversity score. Poor and middle wealth groups’ diversity score has increased slightly in 2004 relative to 2003.
SUMMARY FINDINGS FOR QAN JOGHA SENTINEL SITE IN AYBAK DISTRICT (These findings are based on field survey of 20 households and Qanjogha village leaders interview. These findings should not be assumed to representative of other parts of Afghanistan)

Food Security
- Crop production has fallen considerably 2004 compared to the 2003 crop season. The 2003, harvest reported to be a normal harvest year with farmers averaging from 1 to 1.9 tons per hectare. This year with poor rainfall at the beginning and at the end of the cycle and locust damage, average wheat yield were between 500 to 900 kg/hectare. On the same line, the average land accessed by all households has decreased from 629 jiribs of land to 361 jiribs of land in 2004.
- In 2004, 15% of households felt they were not able to buy/cultivate enough food in the past six months. Less (22.5%) households felt that food situation was worse than one year ago. Yet, more (22.5%) of households have considered that they were not able to buy/cultivate enough food during the time of the survey. On average all households combined had a dietary diversity score of 3.2 against 1.7 in 2003 with an increase of 1.5 dietary diversity score in 2004.

Risk to Lives
- The crude mortality rate is not above both the emergency threshold rate of deaths people per day compare to 2003 and the normal developing country level of deaths people per day. Furthermore, for children under five years of age, the mortality rate does compare favorably with the stable developing country rate, and the emergency threshold rate of deaths people per day. The current rate of water, high bloody diarrhea and the acute respiratory Infections of children under five years of age is serious concern for the village.

Livelihood Security
- 3% of the households' income has increased for the last six months to compare year ago.
- In 2003 women's income activities were only carpets, and gifts. In contrast, in 2004, trade of natural resource collection, agricultural day labour, non-agricultural labour and raising livestock were popular income sources for "poor" and "middle" income women households.

Methodology
The NSS is based on a sentinel site system, in which provincial level ministries follow a rotating cohort of households' overtime. Sites are selected so that they mirror the majority of the communities with respect to agro-ecological features, economic activities, available services and people in a given area (livelihood / agro-ecological zone). Because of the diversity of livelihoods in Afghanistan, even in rural areas, information from the sentinel may not be representative of every village in the zone. However, it is likely, that the data from one sentinel site can signal concern for other villages in the same zone (See Annex I for detailed information on methodology).
CROP PRODUCTION

The Jawzjan province has great potential for growing a wide variety of cereal crops including wheat, rice and barley. Nevertheless, natural hazards (drought, locust invasions) combined with old-fashion farming practices limit the production. Rural and semi-rural areas in Afghanistan remain highly dependant on subsistence agriculture for households' consumption. As a result, the reduction of the harvest will affect seasonal agricultural labour patterns in rural areas, reducing labour and income opportunities and placing greater economic strains on households that would eventually force them to purchase wheat at higher prices. The annual wheat production required for Shebarghan district population of 146,300 people is estimated to be 33 metric tones per year. This does not include amount of seeds that households will keep for planting next growing season.

Area planted

Land access and ownership is the key prerequisite for agricultural production. As shown in the table on the right, the data gathered show that cultivated land varied from season to season and year to year. On the same line, the average land accessed by all households has been decreased from 629 jiribs land to 361 jiribs of land in 2004. In both survey shows all wealthy households were sharecroppers. Yet, the “wealthy” and the middle household average access jiribs were decreased by 50% in 2004. On the same line, the middle households’ average accessed jiribs have decreased by 47%. In contrast, the poor household average access land has decreased by 31%. Though draft oxen are extremely important to household crop production, in QanJoqha, 5% households owned oxen.

Wheat Production (Yield)

Agricultural production is important source of income with 35% of households engaging in crop production. As some of the household do not own land or some (wealthy) were sharecroppers, the amount of yield kept by households can differ from the actual harvest.

The graph on the right, presents the average amount of yield retained from irrigated land by the household in 2003 and 2004. It is disaggregated by wealth to understand relative differences in food availability by socio-economic groups. However, the data shows that wealthy households were not engaged in crop production for both years. Middle household wheat yield totaled 106 Seers against 700 Seers in 2003 with a drop of 85%. On the same line, Poor household wheat yield is estimated 90 Seers against 875 Seers in 2003 with a drop of 89%. However, this graph does not necessarily represent the food security.
ASSESSMENT OF CROP LOSSES

Crop production has fallen considerably this year compared to the 2003 crop season. The 2003 harvest was reported to be a normal harvest year with farmers averaging from 1 to 1.9 tons per hectare. This year with poor rainfall at the beginning and at the end of cycle, average wheat yield were between 500 to 900 kg/hectare. During this crop season the situation was exacerbated by smut diseases and Sunn pest which destroyed wheat in several districts in Jawzjan province. The overall losses by diseases and drought damage have been estimated to be 50 in Samangan (GOAL- impact assessment report 2004).

FOOD SECURITY PERCEPTION

In 2003, 5% of households felt they were not able to buy/cultivate enough food six months prior to the survey. 35% of households considered that the food situation was worse than one year ago and 7.5 of households consider food situation was not sufficient during the time of the survey. Nonetheless, 70% did worry about how they would purchase/cultivate food and household enumerators thought that 2.5% of households did not have enough food to last through the winter. In contrast in 2004, 15% of households felt they were not able to buy/cultivate enough food in the past six months. Less (22.5%) households felt that food situation was worse than one year ago. Yet, more (22.5%) of households have considered that they were not able to buy/cultivate enough food during the time of the survey.

Again, less (60%) households worry how they would purchase/cultivate food in 2004 than 2003. Enumerators observed that more households (12.5%) did not appear to have enough food to survive for the next six months compared to that of 2003. More (12.5%) of the interviewed households thought the food security would get worse over the next six months comparing to 2003, though many expressed uncertainty about how they could predict changes in food security within their homes.

PERCEPTION OF FOOD SECURITY INDICATORS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2003 (%</th>
<th>2004 (%</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider food situation to be worse in comparison to 4/6 months ago</td>
<td>5</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Consider food situation to be worse than one year ago</td>
<td>35</td>
<td>12.5</td>
<td>22.5</td>
</tr>
<tr>
<td>Considered food situation not to be sufficient at time of survey</td>
<td>7.5</td>
<td>30</td>
<td>22.5</td>
</tr>
<tr>
<td>Worried where their food was coming at the time of survey</td>
<td>70</td>
<td>17.5</td>
<td>60</td>
</tr>
<tr>
<td>Expect the food situation to be worse in the next 4/6 months</td>
<td>0</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Enumerators thought households did not have enough food for the next 4/6 months</td>
<td>2.5</td>
<td>15</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Dietary Diversity - Diet Quality

Household dietary diversity scores are summarized in the graph on the right.

The diversity score is calculated by attributing a score of "1" to each food group that was eaten at least once weekly by a household. Households with a higher diversity score have a more diverse diet. Surveys repeated throughout the country indicate that most households consume cereals or grains on a daily basis and thus, cereals were not included in the diet diversity score. On average all households combined had a dietary diversity score of 3.2 against 1.7 in 2003 with an increase of 1.5 dietary diversity score in 2004.

The histogram on the right shows that in 2004, most households (12, 11 and 8 households) scored "5", "4" and "3" respectively. In contrast, in 2003, most (15) households scored "1" and (12) households scored "2". Diversity scores are relatively or slightly different between Wealth groups. "Wealthy" group score of 3.0 against 5.0 in 2003 whereas "middle" score 3.3 against 2.6 in 2003 and poor wealth group score 3.1 against 1.4 in 2003. Diversity scores of both poor and middle households have slightly increased, where the wealthy diversity scores has decreased from 5.0 to 3.0.
The graph on the right reflects the average frequency of consumption for food. The data shows that all households are eating protein-rich foods (meat, milk, eggs, and pulse) at least once a month to once a week to complement cereals (wheat and barley). However, the data indicates no significant changes on most food group consumption in 2004.

The average frequency meat consumption by households has increased from 3.1 to 3.5 in 2004. With the same trend both dairy product and eggs were decreased from 3.1 to 2.2 and from 2.5 to 1.9 respectively. Furthermore, household green vegetable, pulses, and other vegetable average frequency consumption shows a slight decrease in 2004. However, this data does not allow inferences regarding protein sufficiency.

As the data regarding quantities and consumption practices were not collected, no inferences can be made regarding the adequacy of vitamin and mineral intakes. Nonetheless, this data suggests that the areas that need additional research include:

1. Vitamin A sufficiency (animal sources and beta-carotene from plant sources);
2. Calcium sufficiency (milk and water, most water is hard, sources), and;
3. Vitamin C sufficiency (fresh plant sources).

These concerns are based on the frequency of consumption reported by households and the limited availability of these foods compared to other items.

**MARKET ACCESS**

Sheberghan city is the closest food market to Qanjogha, accessible by highway (two hours by foot or donkey). The road is part of the Afghanistan Northern only highway and is in relatively good condition. According to this survey, some travel by vehicle (10 Af's per trip) but this cost may vary according to the person's location in the village. Most Qanjogha residents access Sheberghan market to trade wheat and livestock, and also purchase food and non-food items. The largest trade by women is carpet sales. Market transactions are cash-based and most households send one person to the market on market day (Mondays and Thursdays, weekly). The market is open year-round and is one of the most important trading for local districts, Jawzjan and the surrounding provinces.

As shown on the graphs, no significant price changes have shown from both surveys. Wheat and green tea prices have been stable both years. However, daily labour rates increased from March 2003 reaching a peak of 200 Af's per day in June. Rates then began decreasing on November. The same trends held for both
rice and mutton. Rice prices reached a peak of 220 Af's per Kg from January, June and November 2003 and January 2004. Mutton prices reached a maximum price of 150 Ars in January, March and November 2003. Mutton and rice increases directly impact village food security since these are staple food items. Households also purchase vegetable items (potatoes, spring onions, okra and carrots) from Sheberghan market: prices have remained steady. There are seasonal shortages of some vegetables, though this does not seem to impact vegetable prices nor is demand increased during off-season. Households simply purchase what is available at that time in the market.

**LIVESTOCK**

In 2003, Less than a fifth of households claim income from livestock production 18%. Livestock production was generally a secondary source of income; only 2.5% reported livestock rising as a major income generation activity. Recent research (March, 2002) described a 60% reduction in Afghani livestock populations due to draught nationwide. In Jawzjan, approximately 83% of animal stocks have been lost. Calving/lambing rates range from 25 to 75% resulting in a slow increase in animal numbers, though current populations remain much lower than pre-drought figures. Longer-term breeding programmes and increased access to credit so that farmers can increase reproductive capacity and purchase new animals will be needed to replenish livestock populations.

As shown the table on the right, even though in many parts of Jawzjan the livestock has been hit by the destruction of grazing land caused by drought, in Qanjogha. Both the percent of household owning livestock (sheep and goats) and average number of livestock (sheep, goats, cows and donkeys) have increased in 2004, comparing to 2003. Livestock ownership is a source of income for 25% households in the area. Of these households, most (20%) were from “poor” and 5% from were from the “very poor” households.

As indicated the graph on the right, in 2004 the percentage of households own animals have increased compared to 2003. However, more (28%) of new middle and (23%) poor households own goats in 2004. Furthermore, 13.5% of new middle and one new poor income households own cows in 2004 in comparison with 2003. With the same line, 13% of middle and 20% of poor households own Donkeys. In addition to that, 8% of middle and 5% of poor own sheep. This is an indication of more middle and poor income household are persuading livestock as a new source of income in 2004 in comparison 2003.
Livestock disease

In 2003, when asked about livestock diseases, village leaders noted that sheep and goats were affected by sheep Pox and cattle sometimes suffered from foot and mouth disease. Only 50 heads of cattle were owned in QanJogha, and 50% were said to be infected with foot and mouth. There were 520 heads of sheep and goats in QanJogha, with 67 suffering from sheep and goat pox (SGP). In contrast, 2004 the number of the cattle was increased to 100 with 19% were said to be infected by Foot and Mouth disease. With the same trend, the number of the sheep and coats was increased to 600 in Qanjogha. However, 9% of the sheep was said to be affected with Entertoxaemia, 7% with Pasterellosis, 2% with Black leg and 5% of the sheep were suffered sheep pox. However, both results no animal was observed with the diseases and no household offered evidence that any animals had died with the disease. Foot and Mouth and Sheep Pox can not be ruled out in Sheberghan district since this has been a problem in the past, but more evidence is required to support the claim that this disease is still a problem.

No vaccination clinics have occurred in the last six months, though a veterinary clinic and hospital exist in Sheberghan city. Medicines are not available provincially to treat the condition, and vaccination is the most effective way to prevent animal losses.

Livestock Prices

Qanjogha and surrounding villages rely on the Sheberghan city market livestock sales and purchase. As seen on the graphs no significant livestock price changes were notes comparing the surveys data. Both qaraqal sheep and cow prices remained stable from November 2002 until June 2004. However, oxen prices increased between February and January 2004. Goat prices were stable at approximately $150, with seasonal variation. Donkeys are considered the second most important animal to own, and prices tended to remain stable around $220, though some seasonal variation existed.

Grazing land and Access to Water

Qanjogha and surrounding area environment is relatively hostile and fragile, and market by the scarcity of water resources. The climatic constraints are severe, and continued reduction in rainfall from one year to another. According to village leaders, access to grazing land has been decreased in the last six months prior to the survey. Grassland productivity has been similar to previous years, whilst access to water has decreased this year. However, water shortages between 1999 and 2002 did play a role in subsequent animal losses. Unfortunately, local authorities were not able to use changes in grassland and water access to predict future threats to livestock. Increased awareness of threats to grazing land access might have allowed communities to protect themselves better against drought related animal losses. In addition, common grazing land is sometimes compromised by illegal cultivation of rainfed wheat. This practice can also compromises community animal stocks.

The risk to lives section of this report highlights areas in the country where individuals are more at risk of dying and understanding the reasons behind this increased risk. It particularly focuses on better understanding the links between nutritional risk, food insecurity and mortality.
Mortality Indicators:
The current crude mortality rate (CMR) of 0.21 is less than the previous crude mortality rate of 1.2 in November, 2003. The current rate of 0.21 is not above the emergency threshold rate of 1.0 deaths/10,000 people per day and normal developing country level of 0.5 deaths/10,000 people per day. Furthermore, children under five years of age mortality rate does compare favourably with the stable developing rate of 1.0 deaths/10,000 people per day and the emergency threshold rate of 2.0 deaths/10,000 people per day.

Because of the high rate of maternal and child mortality in Afghanistan, this study also looked at the number of children who had a skilled birth attendant present at delivery as a proxy for risk to lives of both the mothers giving birth and the new infants. Of the number of children born in the last six months, the percentage of births attended by a skilled birth attendant is 25% against 40% in November, 2003. This seems to be not acceptable percentage in this village. This figure, however, is not likely to include stillbirths or children who died during the last four months as a result of the difficulty of obtaining such information.

Risks to Lives Indicators:

<table>
<thead>
<tr>
<th>Mortality Indicators</th>
<th>Nov. 2003 (%)</th>
<th>June 2004 (%)</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude mortality in last 4/6 months (Deaths / 10,000 / day)</td>
<td>1.24</td>
<td>0.21</td>
<td>1.03</td>
</tr>
<tr>
<td>Under 5 mortality in last 4/6 months (Deaths / 10,000 / day)</td>
<td>4.9</td>
<td>0.0</td>
<td>49</td>
</tr>
<tr>
<td>Births in last 4 months attended by a Skilled Birth Attendant (n=8)</td>
<td>40</td>
<td>25</td>
<td>15</td>
</tr>
</tbody>
</table>

Morbidity Indicators:
The morbidity indicators included in the surveillance system are associated with a risk of mortality and are the primary causes of death for children under five in Afghanistan. The incidence of watery diarrhoea among children under five years of at 22% against 13.3% in November, 2003 survey is increasingly cause of concern. The incidence of bloody diarrhoea in 9.4% against 4.4 in November, 2003 (or an increase of 5%) of the children in the village indicates a more serious concern. Many of the cases of diarrhoeal disease might be attributed to hygiene practices and a shortage of water. The percent of children under five suffering from Acute Respiratory Infections of 19% against 27% in November, 2003 or a drop of 8% is serious concern. Measles vaccination coverage in Afghanistan is 95%, and MOH figures for the Sheberghan district report coverage to be 81%. Additionally, the measles vaccination coverage of 88% in this round of data is consistent with district figure.
CHILDREN NUTRITIONAL STATUS:
Current global acute malnutrition 14 % against 2.4% in November, 2003 with an increase of 11.6% is a positive result. Children with oedema are at an extremely high risk of dying and in this sample, however, 3.4% of the children were oedematus, in contrast with none of the children in November, 2003. In QanJogha, 7% of the children were severely wasted. However, the percentage of children under five years of age with moderate wasting in this sample is 3.4 against 2.4% in November, 2003 with an increase of 1% which does require an urgent response.

Low MUAC measurements also indicate children at risk of mortality. The presences of 14 % of children with a MUAC lower than 13.5 cm (between one to five years of age) against 14.7 % in November, 2003 with a drop of 0.7 % is still a high cause for concern for the village. In this round data 3.4% of children with a MUAC of less than 12.0 cm were reported, in contrast with 13.3 in November, 2003 result.

ADULT WOMEN NUTRITIONAL STATUS:
Low MUACs in reproductive-age women has been associated with high child and maternal mortality making it an important indicator for increased risks to adult women mortality. In QanJogha 28% of women have a MUAC below 13.3 cm against 13.3% in November 2003 with an increase of 14.7%. In contrast, 5.3% of women were reported having a MUAC below 21% cm against 10.5 in November, 2003 with a drop of 5.2%. In addition 13% of women have reported breastfeeding problem.

MICRONUTRIENT DEFICIENCIES:
The presence of iodised salt in the house is a proxy for the use of it and also therefore of iodine deficiency. 18 % of households had iodised salt in this round of data, in comparison, no households had iodised salt as all salt was locally mined block salt during the survey. However, the iodised salt is available in the local market and there is a factory that produces iodised salt in Ghol mahalalah, Sheberghan City, Jowzjan province.

HEALTH FACILITIES:
The table below lists the health services or facilities that are available to the people in QonJogha area. However, there are no health facilities in QonJogha itself and all the residents of the neighbouring villages travel to Sheberghan City (Provincial Capital City) to use Shibirghan City’s health services. Shabarghan City has two main Hospitals and four comprehensive health centres and number of private doctors. People travel there with public transportation, the cost of getting to Sheberqhan city from QanJogha is 10 Afs. In an urgent situation, people use taxi, the cost of which (round trip including a waiting period) is 300 Afs.

In QanJogha itself, there are number of traditional birth attendants (TBA) to help the village women with birth deliveries. The birth attendant usually comes to the woman’s house for services. The common custom of TBA in this village and the surrounding areas is that there are no fixed charges for the TBA services and, as such, every household pays what they are able to afford and in accordance to their class in the community. The TBA fee ranges from nothing to 100 afs and can be in cash or kind. Many households in this village pay to their TBA services using food and no-food items.

All the Government health services in Sheberghan City are free of charge, and as a result they are used largely by poor and middle income families. The wealthy class of QanJogha and the surrounding area goes to private doctors which charge 40Afs for a visit. Many people believe that the services of a private doctor are better than those of the government and if one is able to afford 40 Afs he/she should go to the private doctor. Medicine needs to be paid for in both cases. There are also skilled birth attendants in Sheberqan City hospitals and additionally there is a private service that people may use in the case of severe emergencies or complications. This type of private service is very expensive. Travel to Sheberghan is possible in all seasons, including winter, as the village is very close to the city.
Health Facilities Table

<table>
<thead>
<tr>
<th>Location of facility</th>
<th>Time taken to reach facility</th>
<th>Cost of getting to the facility (Af)</th>
<th>Access to facility</th>
<th>Facility Accessible in winter and Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health posts</td>
<td>Aybak</td>
<td>Less than hour</td>
<td>500-600</td>
<td>Every body</td>
</tr>
<tr>
<td>Basic Health Centre</td>
<td>Aybak</td>
<td>Less than hour</td>
<td>500-600</td>
<td>Every body</td>
</tr>
<tr>
<td>Comprehensive Health Centre</td>
<td>Aybak</td>
<td>Less than hour</td>
<td>500-600</td>
<td>Everyone</td>
</tr>
<tr>
<td>Hospital</td>
<td>Aybak</td>
<td>Less than hour</td>
<td>500-600</td>
<td>Every body</td>
</tr>
<tr>
<td>Traditional healers/Birth Attendants</td>
<td>Sarqia</td>
<td>Less than five minutes</td>
<td>0</td>
<td>Women only</td>
</tr>
<tr>
<td>Skilled birth attendant</td>
<td>Afghanistan</td>
<td>Less than hour</td>
<td>500-600</td>
<td>Everybody</td>
</tr>
<tr>
<td>Private doctor</td>
<td>Aybak</td>
<td>500-600</td>
<td></td>
<td>Everyone</td>
</tr>
</tbody>
</table>

The use of health facilities has stayed constant in the last six months.

WATER SOURCES:
In QanJogha, the public sources of water are man made earth dams and 6 hand pumps built by the Swedish committee for Afghanistan. In addition to that, most households have wells in their houses. Those who do not have must retrieve water from the village's earth dam. The earth dams are usually located near the mosques and in most cases it is the men of the family who bring water from the dam to the household. As a result of increased health awareness, the majority of the village people prefer to get their drinking water from hand pumps rather than from either the earth dam or the open wells (which are occasionally used to by animals). The people reported that both from the Earth dams and open well the quality and the quantity of water available have stayed the same in comparison with last year. However, the quality and the quantity of the Hand pump decreased in comparison from the last year.

The number one priority for the village is to get more access to clean drinking water through the construction of more hand pumps or deep wells with immersed pumps as the QanJogha village has a reliable source of electricity.

Drinking Water Source Table

<table>
<thead>
<tr>
<th>(Source listed in order of use)</th>
<th>Time taken for water collection</th>
<th>Quality change since last year</th>
<th>Quantity change since last year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth Dams</td>
<td>30 minutes</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>Hand pump</td>
<td>30 minutes</td>
<td>Decreased</td>
<td>Decreased</td>
</tr>
<tr>
<td>Open well</td>
<td>30 minutes</td>
<td>Same</td>
<td>Same</td>
</tr>
</tbody>
</table>

SANITATION FACILITIES:
There are three common types of toilets in the QanJogha area: open area, vault latrine and deep latrine. The majority of households have a deep latrine toilet in their houses. The vault latrine is usually located in public places like schools and mosques and is always separate for men and women. The very low income households of QanJogha who can not build a latrine have an open area toilet and they use the human manure into their crop production.
Livelihood Strategies:
The primary income source of most households in Qanjogha during the survey period were agricultural crop production, none-agricultural day labour agricultural day labour and collection and sale of natural resources.

As shown in the graph on the right, there are changes in the primary income source in relation with seasonality. The percentage of households that were engaged in agricultural day labour and formal wage labour has increased from 10% to 48% and from 5% to 10% in 2004 respectively. In contrast, non-agricultural day labour and agricultural production have reduced from 53% to 25% and from 20% to 8% of households in 2004 respectively.

The table below captures the percentage of households engaged in different activities. This provides an indication of the relative importance of different livelihood strategies to the community. With regard to seasonality changes, with exception of those engaged in Spinning/carpet labour, trade/shops, agricultural crops, collection-natural resources, Gifts/Gleaning and informal wage labour, income the rest of activities the percentage of households who were engaged in 2003 have been increased in 2004.

Data regarding women's income activities can clarify the role of women in current livelihood strategies and identify potential for future involvement. In 2003 women's income activities were only carpets, agricultural livestock, use loans and collection and sale of natural resource. However, in 2004, agricultural day labour and non-agricultural labour and raising livestock, collection - natural resources were popular income sources for "poor" and "middle" income women households. However, less (5%) of women were engaged in spinning/carpets in 2004. Interestingly, women tended to see activities associated with men as less important. However, all women received money from gifts/gleaning, yet men of all wealth groups did not consider these a source of income. Female headed households were very poor. The main problem is illiteracy, unemployment, poor infrastructure, lack of resources. A number of widows have received wool material from GOAL for making gillams and carpets.
EMBROIDERY, CARPETS, GILIMS, WOOL and SILK SPINNING:
In 2003, 77.5% of women participate in carpet weaving whereas, in 2004, 72.5% of women were engaged in carpet weaving as an income source. Of these households, most (62.5%) were from the poor, (7.5%) middle and 2.5% were from the wealthy households.
Households were normally given material by an investor who then paid wages based on the length and intricacy of the carpet completed. Twenty widows received wool from GOAL for making gillams, and have sold these and have now finished making their second rugs.
The average income by activity is listed in the table on the right. The percentage of households that was engaged in carpet/Gilims has stated the same. In contrast, both the percentage of households that was engaged in wool spinning and handicrafts have decreased from 42.5 to 37.5 with a drop of 12% and from 5% to 2.5% with a drop of 50%. On the same line, the average income earned from the wool spinning and handicraft have decreased from 682 afs to 567 afs with a drop of 17% and from 1800 afs to 800 afs with a drop of 5% respectively. In contrast, the average income earned from the carpets/Gilims has increased by 40%.

<table>
<thead>
<tr>
<th></th>
<th>Percentage of households</th>
<th>Average Income Earned (Afs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wool Spinning</td>
<td>42.5 37.5</td>
<td>682 567</td>
</tr>
<tr>
<td>Handicrafts</td>
<td>5 2.5</td>
<td>1800 800</td>
</tr>
<tr>
<td>Carpets/Gilims</td>
<td>50 50</td>
<td>2122 3530</td>
</tr>
</tbody>
</table>

COLLECTION AND SALE OF NATURAL RESOURCES
In 2003, fourteen households collected and sold natural resources. Of these households, ten were "poor", three were "middle" and one "wealthy". In contrast, the 2004 survey, 12 households of (1) from "wealthy", (1) "middle" and (10) "poor" income households have collected and sold natural resources. All (12) households collected and sold bushes. Livelihood activities were negatively impacted by recent drought. Lack of rain meant that bushes did not grow as well, and fewer animals led to a reduced amount of dung available for collection. The future availability of these resources did not appear to be compromised since animal stocks would be replenished, and bushes are cut above the root system so that they would grow again after the rains. Despite the drought, bush prices have remained stable, but fewer households collect this resource as market rates for day labour are more profitable for households.

LIVELIHOOD SHOCKS:
GENERAL LIVELIHOOD SHOCKS or CONSTRAINTS:
The graph on the right shows that 28% of the households' income has increased for the last six months to compare 25% year ago. In the previous year, 65% of households' incomes stayed the same, whereas 60% of households' income stayed the same for the past six months. Furthermore, 13% of households reported income decrease in the last six month to compare 10% of year ago. Households with steady incomes did not share similar livelihoods, thus it does not appear that a specific shock is responsible. Instead, this might be normal variation.
Crop production and agricultural daily labour:

Agricultural labour throughout the year brings in a wage of between 75 to 200 afs per day, but during the harvest, instead of a daily wage in cash, people are paid in wheat. Crop production and daily labour were the main sources of income and have a major impact on the livelihood of the “poor” QanJogha households.

The graph on the right demonstrates the percentage of households of all wealth groups engaged in crop production and agricultural day labour. The only seasonal changes from 2003 to 2004, was 19% of a new poor households were engaged in crop production and agricultural day labour in 2004 relative to that of 2003.

Assessment of crop losses

In Qanjogha 41% of households reported 20-50% of crop losses. Yet, none of the households reported more than 20-50% of crop losses. However, it seems the crop losses were specific to irregular rainfall and Sunn pest attack in most districts of Jawzjan province in the six months prior to the survey. The Sunn pest invasions occurred in most districts of the province from March onwards, continuously almost until harvest time. The output or wheat yield was reduced substantially following the attacks and poor rainfall, particularly in Sheberghan district.

LIVESTOCK:

Grazing land also sustained quite serious damage following the Sunn pest and shortage of rainfall in 2004. At the moment, there is hardly any pasture in the province and the cattle are beginning to lose weight. In consequence, distress sales together with low demands may lead to low cattle prices. Reflecting the poor quality of pastures which were seriously affected by both locust and poor rainfall in many parts of the area, animals are in poor condition. As early in January 2004, some households started selling 146 live sheep and 22 goats, 1 cow and 33 sheep and 59 goats were killed in the last six months in order to avoid losses. Livestock does need to be replenished through longer-term breeding programmes, credit initiatives, loans or other schemes that will allow the farmer access to funds to purchase new animals.

Shocks to non-Agricultural

Non-Agricultural Labour (skilled and unskilled manual labour)

In QanJogha, 35% of households claimed manual labour as an income sources in 2004 against only 78% of households in 2003.

The graph on the right shows household participation in non-agriculture day labour across wealth rankings. No “wealthy” household was engaged in this activity in 2003 and 2004. Less (7.5%) of the middle and less (40%) of poor households were engaged in non-agricultural day labour in 2003 than 2004.
OTHER INCOME SOURCES
The only other main income sources in Qanjogha were loans. Loans were a major source of income for 30% of the households. Most (22.5%) households with loans were "poor" and (7.5%) were from the middle households.

Gifts/Gleaning
Four households from poor household reported gifts/gleaning as income in 2004, whereas six households reported an income from gifts and gleaning in 2003.

Coping strategies
The coping strategies included here are by no means inclusive of all strategies invoked by households to survive tough times; instead, it focuses on behaviours predictive of declining livelihood and food security in Afghanistan that can be easily measured.

The list was divided into erosive and non-erosive coping strategies in order to understand impacts on households’ future livelihood security. The division is not mutually exclusive as the loss of a bicycle, motorcycle or car may also impact future opportunities. Similarly, the order of the list does not reflect a continuum of behaviour. The coping strategies listed are meant to be general indicators of a worsening situation, however, households experiencing chronic and transitory poverty who engage in these activities on a regular basis.

None Erosive coping strategies
In order to meet their expenses, 7.5% households sold non-productive assets such as gillams, carpets in 2004. Less (20%) household households have engaged in longer hours of work in 2004 compared to 2003. More (2.5%) households members migrated for labour in 2004 than in 2003. Food consumption patterns and sources of food are also key indicators of household vulnerability. Less (5%) households interviewed had been eating dried bread in 2004 compared to 2003. In addition to changes in food consumption, most of the families needed external support to food needs. 85% of the families had to borrow food from their relatives in order to make a meal in the last six months and the data shows 8% decrease in 2004.

Erosive and distress coping strategies
It is apparent that strategies adapted by households to deal with shocks varied with individuals, households and villages. In Qanjogha, 30% of households took loans as a coping strategy, whereas 25% took loan as coping strategy to meet daily expenses in 2003, with decrease of 20%. In the same way, up to 48% of the households took food on credit in 2003, whereas 43% took food on credit from local shops in 2004 or a drop of 15%. Still, it is apparent that both "poor" and "middle" households are extremely vulnerable as they jeopardize future production capacity to cover immediate needs.

Income Diversity and Capacity to Cope – Risk to Livelihoods
Household’s capacity to absorb shocks and to adapt stresses induced by climate, price instability, unemployment and complex emergencies such as political crisis. However, households with various income sources are better able to cope than households who rely on one or two income sources. The income diversity score is simply a count of the number of income sources for each household. In Qanjogha, households had an average income diversity score of 3.6 in 2003, whereas the score have slightly increased to 5.0. In many cases the wealthier household often scores higher income diversity measures, however, in this situation the poor income households have higher diversity score. The wealthy diversity score has decreased from 5.0 to 3.5 with a drop of 1.5 in 2004. In contrast, both middle and poor household’ diversity score have slightly increased in 2004.
The National Surveillance System (NSS) is based on a sentinel site system. These sentinel sites are tracked over time to monitor changes in food security, livelihoods, and nutritional status. The sampling methodology is based on a multi-stage sample selection process and incorporates both urban and rural areas in the sample. The table and narrative steps below detail the process used to determine the stratification framework and levels of the sample.

<table>
<thead>
<tr>
<th>Rural strata</th>
<th>Urban strata</th>
<th>Rural Representation and Method of Division</th>
<th>Urban Representation and Method of Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provinces</td>
<td>Provinces</td>
<td>Every province is to be represented in the surveillance system. 33 provinces are divided according to Ministry of Interior definition of provincial boundaries.</td>
<td>Urban areas are defined as having a population over 500,000, &gt;100 shops and permanent food market. These include Kabul, Mazar-i Sharif, Kandahar, Herat, Jalalabad, Kunduz.</td>
</tr>
<tr>
<td>Districts</td>
<td>Urban Areas</td>
<td>Every rural district is to be represented in the surveillance system. Rural districts are divided according to Ministry of Interior definitions, except in the cases where currently recognized local administrative boundaries differ.</td>
<td>Urban centers are divided into nahia, which is the sub-unit of an urban area used by the Central Statistical Office. Nahias in the urban setting are categorized into livelihood groupings.</td>
</tr>
<tr>
<td>Livelihood Zone</td>
<td>Livelihood Groupings</td>
<td>Districts are divided into eco-agro-ecological or livelihood zones.</td>
<td></td>
</tr>
<tr>
<td>Sentinel Site -</td>
<td>Sentinel Site -</td>
<td>One settlement or mosque area within a settlement is selected from each livelihood zone as the sentinel site.</td>
<td>Because people do not have detailed information on households in their blocks, it is difficult to implement a wealth group breakdown.</td>
</tr>
<tr>
<td>Villages or</td>
<td>Urban Blocks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mosque Areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wealth groups</td>
<td>Not applicable</td>
<td>In each sentinel site settlement, a wealth group breakdown is conducted in which all the households will be categorized into three wealth groups; poor, medium, and better off.</td>
<td></td>
</tr>
<tr>
<td>Households</td>
<td>Households</td>
<td>Households are randomly selected proportional to actual representation in the population of households within the three wealth groups. The number of households selected and the selection process is detailed below.</td>
<td>Households are randomly selected from the block.</td>
</tr>
<tr>
<td>Individuals</td>
<td>Individuals</td>
<td>Individuals are selected from each household in the survey. Selection of individuals is only necessary for measuring certain indicators (i.e. anthropometric status) and will be based on the case definition of the indicator.</td>
<td></td>
</tr>
</tbody>
</table>

The steps for defining livelihood zones and household selection for rural application of the NSS sampling methodology are explained below, and these steps can also be applied to the corresponding urban strata discussed in the table above.

**Defining Livelihood Zones within a District**

The first step completed in defining a livelihood zone was to find information on the following subjects in all settlements in a district, or as many as possible.

**Defining Criteria:**
- Agro-ecological context (topological/geological/soil description, water, land-cover/land-use)
- Economic resources and activity (sources of income and food, access to markets)
- Services (health, education, water, roads, other services)
- People (ethnicity, number of households in settlement).

Once the information was collected, the district was separated into livelihood zones based on agro-ecological context and economic resources and activity features. Services and people features were also considered but were not usually the basis for livelihood zone distinction.2

1 Information on the methodology can be found in the NSS methodology document on [http://www.mrrd.gov.af/vau/](http://www.mrrd.gov.af/vau/)
2 In some areas of implementation, the agro-ecological zones used by the 2002 WFP-implemented Country-wide Food Needs Assessment were used to define livelihood zones.
Sentinel Site Selection

Since sentinel sites are meant to be representative of their zone, the site, to the extent possible, was selected to mirror the majority of the settlements in the livelihood zone with respect to the defining criteria mentioned above. Inevitably, it is impossible to find homogeneity across all of these indicators, thus agro-ecological context and economic resources and activities were given a priority. Additional factors that were considered when choosing a sentinel site included:

- Population of sentinel site should be representative of a majority of settlements in the zone
- Distance from roads and markets relative to other villages/towns in zone
- Presence of other related surveys in order to avoid survey fatigue
- Permission by local authorities and community leaders.

Wealth Group Differentiation

As part of focus group discussions, government surveillance unit teams separately asked male and female focus group members to identify how the people in the community define wealth and then define better off, medium and poor households. Once these characteristics were agreed upon, both male and female teams used the list created in the male focus group of all households in the community to place each household into a wealth group category and then asked for the rationale behind the placement. From here male and female lists were checked to find out when the households had been assigned to a different wealth group. If households were different, male and female surveyors together had to decide on a mutually agreeable placement for the households, either by following up with focus group members or by noting that one group had a knowledge gap regarding the household under discussion.

Household Selection

For the purpose of the national surveillance system, a household is defined as a group of individuals sharing income and expenditure and that are living within the same compound. Households were randomly selected proportional to their actual representation in the population within the three wealth groups. The number of households surveyed depended on the size of the sentinel site. If the settlement had over 200 households, a mosque area or a distinct community area was selected as the sentinel site. For nomadic populations of less than 50 households, it was recommended to include all households if possible.

Selection of Individuals

Selection of individuals within households was only necessary for measuring certain anthropometric status. In this case, all individuals in selected households meeting the case definition criteria for these indicators were included in the survey.

Data Collection Instruments and Fieldwork

Data collection for the NSS was originally envisioned to occur three times a year, and the fall round 2003 was the first round using standardized questionnaires. The male and female sentinel site questionnaires included focus group discussions with male and female elders. The male household questionnaire was asked to the male head of household and the female household questionnaire was asked to the female head of household. Many of the questions included in the NSS standardized questionnaires referenced the period four months prior to the survey in order to gain an understanding of issues of seasonality in relation to livelihood strategies, food security and risk to lives. The market survey questionnaire collected data at the provincial capital as well as at the main permanent food market nearest to each sentinel site on a monthly basis.

Government surveillance data collection teams consisted of one NGO supervisor, two staff from MRRD (one male and one female), two staff from MAAH (one male and one female) and two other casual staff. They were all trained on the surveillance system project as well as the implementation of the questionnaires.

3 Lessons learned from the fall round suggested that collecting data three times a year was neither financially feasible nor necessary for most locations. The pilot NSS collected only a second round of data in spring 2004.
Time was spent working with ministry partners and other stakeholders to define case definitions for items such as morbidity, livestock diseases and livelihood strategy categories. Please see guidance notes for the questionnaires posted on http://www.mrrd.gov.af/vau. It is worth noting here that livelihood strategies were grouped according to the following categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural crop production</td>
<td>Cultivators who own the land, sharecroppers, or farmers renting land from others for cultivation.</td>
</tr>
<tr>
<td>Agricultural day labor – casual labor</td>
<td>Anybody participating in the daily or casual labor related to agriculture. This could include land preparation, sowing, weeding, harvesting and post-harvest processing.</td>
</tr>
<tr>
<td>Agricultural livestock</td>
<td>Households generating income (cash or in-kind) from their own livestock.</td>
</tr>
<tr>
<td>Carpets/handicrafts</td>
<td>Households that weave carpets or make handicrafts and sell or exchange them.</td>
</tr>
<tr>
<td>Carpets/handicrafts – wage labor</td>
<td>Households that weave carpets or make handicrafts on a wage labor basis.</td>
</tr>
<tr>
<td>Shops/trader – own business</td>
<td>Anybody who engages in significant trade, e.g. shop or livestock trader.</td>
</tr>
<tr>
<td>Small trade related business - push carts, mobile street vendors etc.</td>
<td>Businesses that are smaller scale than those above, such as push carts, mobile street vendors etc.</td>
</tr>
<tr>
<td>Formal wage labor (e.g. government/ health/ education/ administrative)</td>
<td>Informal wage labor indicates that a more permanent or longer term labor contracts than daily labor.</td>
</tr>
<tr>
<td>Informal wage labor (e.g. shepherd, driver)</td>
<td>Non-agricultural daily labor covers a range of activities not related to agriculture, but where people normally work daily or casually.</td>
</tr>
<tr>
<td>Non-agriculture day labor (artisan and manual labor)</td>
<td>People deriving income from the rent of land, houses, shops and equipment such as combine harvesters or tractors.</td>
</tr>
<tr>
<td>Rental income (land, house, shops, agriculture equipment, transport vehicles)</td>
<td>People deriving income from family members remitting money from another country.</td>
</tr>
<tr>
<td>Remittances</td>
<td>People deriving income from family members remitting money from another country.</td>
</tr>
<tr>
<td>Take out loan</td>
<td>Money received on credit or loan.</td>
</tr>
<tr>
<td>Repayment of loans</td>
<td>Money received from someone who repaid a loan.</td>
</tr>
<tr>
<td>Begging</td>
<td>This category includes gifts received from friends, family and community members. It includes zakat, gleaning rights, and aid.</td>
</tr>
<tr>
<td>Mortgaging land, house, shop</td>
<td>Natural resources can be bushes, trees, mushrooms, wild plants, etc.</td>
</tr>
<tr>
<td>Collection and sale of natural resources</td>
<td>Natural resources can be bushes, trees, mushrooms, wild plants, etc.</td>
</tr>
</tbody>
</table>

**Data Entry and Analysis**

Data was entered into a decentralized Microsoft Access database and Access reports produced in each provincial surveillance government unit. These Access reports were then used by the provincial surveillance unit to create this report and the corresponding Dari report. The findings were analysed and have been presented in three categories in order to facilitate the use of this information to inform policies and programs: Food Security, Risk to Lives and Livelihood Security.

**NOTE:** These reports were compiled and analyzed as part of a multi-faceted, multi-agency pilot project, and all data and analysis should be checked against final compiled results, and additional information found in a separate document to be produced by the NSS government partners: http://www.mrrd.gov.af/vau. Contact: amanullah.assil@mrrd.org.