

The Zimbabwe Resilience Building Fund (ZRBF) High Frequency Monitoring Bulletin



Bulletin # 9: February 2018

1. Note to the Reader

The purpose of the ZRBF High Frequency Monitoring Bulletin is to timely avail real time data and information on identified and agreed trigger indicators for the activation of the crisis modifier, and other decisions with regard the overall ZRBF adaptive programming. ZRBF identified a set of indicators to monitor these shocks: drought, floods, crop pests and diseases, animal pests and diseases, waterborne diseases, health, as well as crop and animal prices.

Information presented in this bulletin is readily available in the HFM Online Database, accessible using this URL <https://197.155.231.242/undp/ZRBF/HFMS/index.php>.

The bulletin contains official information for the month of January 2018 collected from various sources by ZRBF partners and analysed by ZRBF PMU. The High Frequency Monitoring Bulletin is a product of collaboration between the ZRBF Partners and other government agencies. For questions and comments regarding this bulletin, kindly get in touch with Vhusomuzi Sithole (vhusomuzi.sithole@undp.org) or Rufael Fassil (rufael.fassil@undp.org).

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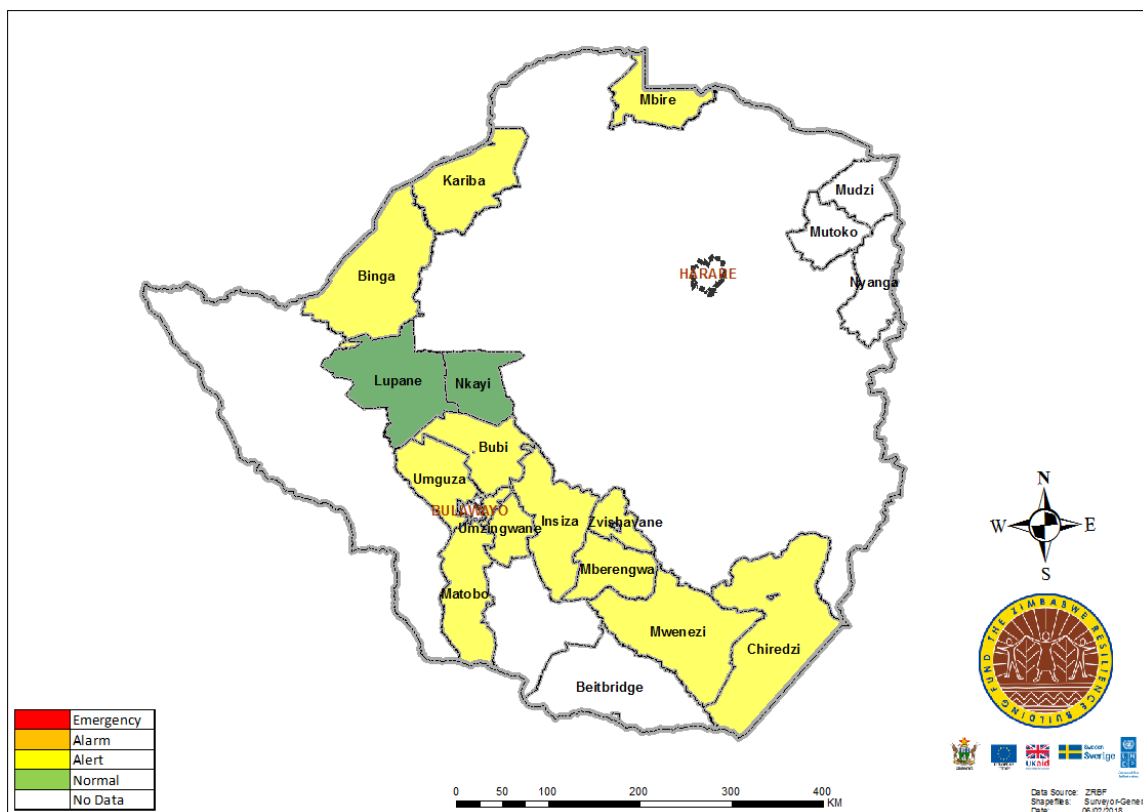


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1. OVERALL RESULTS and IMPLICATIONS

Summary Classification



Key Highlights

- All districts with ZRBF programming and participating in HFM reporting were classified as Alert, except for Lupane and Nkayi districts, both located in Matabeleland North province.
- The following indicators were in emergency during the month and remedial action is required by all partners in the respective districts.
 1. Crops Pest and Diseases Outbreaks in Binga
 2. High mid-season Dry Days in Bubi, Chiredzi, Kariba, Mberengwa, Mbire, Mwenezi, Nkayi, Umuza and Umzingwane
 3. Low Rapoko Price in Bubi
 4. Livestock Body Condition in Bubi
 5. Crop Condition in Lupane
 6. Low goat prices in Matobo
 7. Reported Cases of FMD in Mberengwa, as well as
 8. Reported Cases of Anthrax in Umzingwane

Table 1 below summarises these trends in the overall classification of the fourteen (14) districts since the beginning of the High Frequency Monitoring System (HFMS) reporting. It is worth noting that Insiza, Lupane and Matobo are reporting for the first time while Mberengwa and Zvishavane are reporting for the second time.

Table 1: Overall status update of the 14 ZRBF operational districts

| Month | Bubi | Binga | Chiredzi | Insiza | Kariba | Lupane | Matobo | Mberengwa | Mbire | Mwenezi | Nkayi | Umguzana | Umzingwane | Zvishavane |
|----------------|--------|--------|----------|--------|--------|--------|--------|-----------|--------|---------|--------|----------|------------|------------|
| May 2017 | - | Normal | Normal | | Normal | | | | Normal | Normal | - | - | - | |
| June 2017 | Normal | Normal | Normal | | Normal | | | | Normal | Normal | - | Normal | Normal | |
| July 2017 | Normal | Normal | Normal | | Normal | | | | Normal | Normal | - | Normal | Normal | |
| August 2017 | Normal | Normal | Normal | | Normal | | | | Alert | Alert | - | Normal | Normal | |
| September 2017 | Alert | Normal | Alert | | Alert | | | | Alert | Alert | Normal | Alert | Normal | |
| October 2017 | - | Normal | Alert | | Alert | | | | Alert | Alert | Alert | Normal | - | |
| November 2017 | Alert | Normal | Alert | | Alert | | | | Alert | Alert | Normal | Normal | Normal | |
| December 2017 | Alert | Normal | Alert | | Alert | | | | Alert | Alert | Normal | Normal | Normal | |
| January 2018 | Alert | Alert | Alert | | Alert | Normal | Alert | Alert | Alert | Alert | Normal | Alert | Alert | Alert |

Implications and Actions related to Adaptive Programming

- Vaccination and treatment of livestock diseases will need to be strengthened in the short-term, mainly in Mberengwa and Umzingwane, especially mitigation against FMD (543) and anthrax (20 cases) respectively. The main implication to these outbreaks is potential loss of animals due to the diseases. Response to the pandemics come with movement restrictions which affect trade in the two districts leading to loss of income to livestock-households. Planned actions include strengthening vaccination which the Ministry of Lands, Agriculture and Rural Resettlement (MLARR) has already commenced in both districts. Training and knowledge dissemination of the diseases within the affected districts also help in empowering communities to diagnose the diseases and limit human infections, especially Anthrax.
- Improved water management practices by households to ensure efficient utilization of water for both domestic and livestock.
- There has been cholera outbreak in Chegutu district which is outside ZRBF's area of operation and in Zambia which share the border with 3 districts with ZRBF-funded projects (Binga, Mbire and Kariba). So far there have been modest diarrhoea infections in Mberengwa and Zvishavane (39 and 33 respectively) as well as 2 reported cases of dysentery in Mberengwa. Implications of the waterborne diseases in the districts include loss of productivity due to illness as well as loss of lives, if not treated. Prevention mechanisms should be strengthened in the 14 districts for easy detection and timely response of cholera, dysentery and other waterborne diseases.
- The food situation also needs monitoring as some districts are already reporting reduction in average number of meals per day from 3 to 2. Although the government and humanitarian organisations have commenced food aid/cash transfers, monitoring of the food situation is also essential in the project areas as a way of protecting development gains. WFP's Lean Season Assistance programme is already targeting the following number of beneficiaries for the upcoming peak hunger season (Jan-March).

2. A STATUS UPDATE ON MACRO-INDICATORS

2.1 Vegetation Condition Index

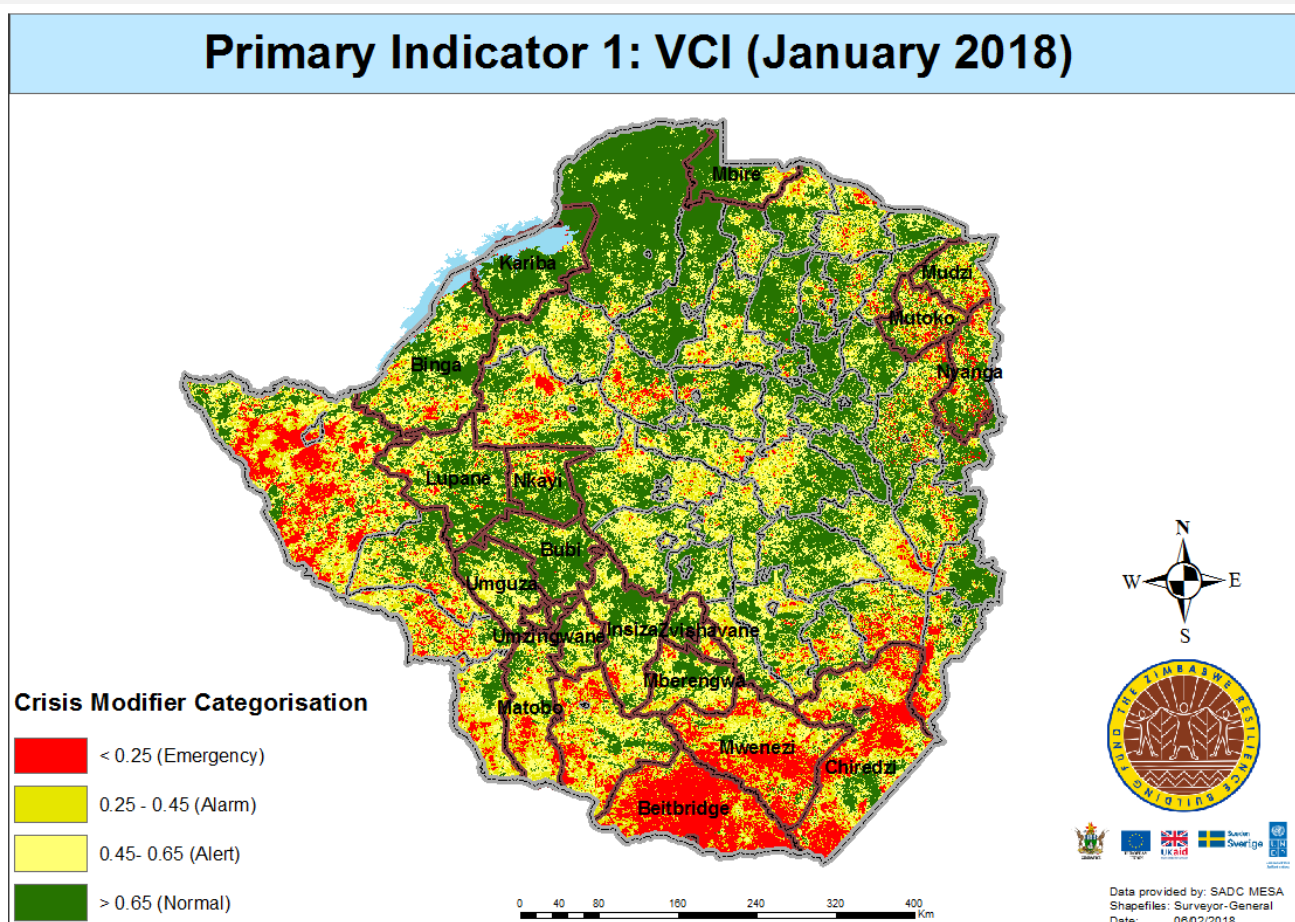


Figure 1: Vegetation condition on the 31st of January 2018 as reflected by VCI

The Vegetation Condition Index shows stressed vegetation condition across the districts where ZRBF has projects (See Figures 1 below) except for Bubi, Lupane, Mbire and Nkayi. On average, vegetation condition in districts of ZRBF programming generally deteriorated in all 14 reporting districts except in four (Bubi, Lupane, Mbire and Nkayi). The stressed vegetation is reflected by the general low VCI values across the districts.

Table 2: VCI values in the 14 ZRBF operational districts

| District | VCI | Crisis Modifier |
|-----------|------|-----------------|
| Binga | 0.58 | Alert |
| Bubi | 0.73 | Normal |
| Chiredzi | 0.36 | Alarm |
| Insiza | 0.61 | Alert |
| Kariba | 0.59 | Alert |
| Lupane | 0.66 | Normal |
| Matobo | 0.48 | Alert |
| Mberengwa | 0.57 | Alert |
| Mbire | 0.75 | Normal |

| | | |
|------------|------|--------|
| Mwenezi | 0.32 | Alarm |
| Nkayi | 0.68 | Normal |
| Umguza | 0.64 | Alert |
| Umzingwane | 0.60 | Alert |
| Zvishavane | 0.60 | Alert |

2.2 Real-time Water Levels

The second macro-indicator, which monitor flooding situation using flow figures of selected rivers, showed that the ZRBF districts were not at risk of flooding. The 8 functional stations which recorded low water levels thereby translating to a normal category – low flooding risk. The classification is a based on a scale determined in Annex 1. Table 2 show that there is no flooding risk in all the selected districts.

Table 3: Average water levels along selected major rivers in Zimbabwe, January 2018.

| River | Site | Flow | Crisis Modifier Category | Comments |
|-----------|-----------------------|------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Zambezi | Victoria Falls | 851m ³ /s | Normal | The flows in the Zambezi River continue to increase due to the runoff being generated upstream. The flows are above the average expected at this time of the year. |
| Odzi | Odzi Gorge | 3.74m ³ /s | Normal | Flows are still decreasing and are below the average levels expected at this time. The chances of flooding in the Middle Sabi are still low. |
| Runde | Confluence with Tokwe | 0.01m ³ /s | Normal | Negligible flows are being recorded in the Runde River and catchment. The chances of flooding in the Runde and Chiredzi regions are currently remote. |
| Save | Condo | 2.14m ³ /s | Normal | Decrease in flows observed during the week and the current flows are below average. Chances of flooding in Middle Sabi are low. |
| Manyame | Chinhoyi bridge | 35.7m ³ /s | Normal | Decreases in flows were recorded in the Manyame River during the period. The chances of flooding are very low. |
| Mazowe | Mazowe Bridge | 6.4 m ³ /s | Normal | Flows are still below the average levels, hence there are very low chances of flooding in the catchment. |
| Gwayi | Dahlia | 0.00 m ³ /s | Normal | There are negligible flows in the Gwayi River and hence very low risk of flooding in the Tsholotsho and Gwayi areas. |
| Mzingwane | Limpopo | 0.03m | Normal | Continued decrease in water levels was recorded in the Limpopo during the week. The levels remain way below the 6 metre threshold of flooding in Chikwalakwala area. |

3. A STATUS UPDATE ON MICRO-INDICATORS

3.1 Summary of Broad Classes of Micro-Indicators

The micro-indicator data from the districts of operation reflect the following conditions in the four broad classes of indicators. All in all, biophysical and access indicators were mainly in the Alert/Alarm due to prolonged mid-season dry spells experienced across the project operational districts.

Table 4: Indicator groups summary for January 2018

| District | Biophysical Indicators ¹ | Production Indicators ² | Access Indicators ³ | Trade Indicators ⁴ |
|------------|-------------------------------------|------------------------------------|--------------------------------|-------------------------------|
| Binga | Alert | Alert | Alarm | Normal |
| Bubi | Alert | Alert | Alert | Normal |
| Chiredzi | Alert | Normal | Alert | Normal |
| Insiza | Alarm | Normal | Alert | Normal |
| Kariba | Alert | Normal | Alert | Normal |
| Lupane | Alert | Normal | Normal | Normal |
| Matobo | Alarm | Alert | Alert | Alert |
| Mberengwa | Alert | Alert | Alert | Normal |
| Mbire | Alarm | Normal | Alert | Alert |
| Mwenezi | Alarm | Normal | Alert | Normal |
| Nkayi | Alert | Normal | Normal | Normal |
| Umguzi | Alert | Normal | Alert | Normal |
| Umzingwane | Alert | Alert | Alert | Normal |
| Zvishavane | Alert | Alert | Alert | Normal |

¹ Biophysical indicators include rainfall, mid-season dry days, pasture availability and the state of water sources.

² Production Indicators include crop condition, livestock body condition, number livestock poverty deaths, crops pest and diseases outbreaks, reported cases of livestock diseases and reported cases of water-borne diseases.

³ Access indicators include school attendance, livestock trekking distance for water and number of meals.

⁴ Trade Indicators include cattle, goat, sheep, indigenous chicken, maize, sorghum, pearl millet and rapoko prices

3.2 Detail Micro-Indicators Updates

A. Biophysical Indicators

Table 5: Biophysical indicator summary for January 2018

| District | Biophysical Indicators | | | |
|------------|------------------------|----------------------------|-----------------------|------------------------|
| | Rainfall | Mid-season dry spells days | Pastures availability | State of water sources |
| Binga | 28.2 | 16 | 3 | 3 |
| Bubi | 63.1 | 25 | 4 | 2 |
| Chiredzi | 5.71 | 23 | 3 | 3 |
| Insiza | 179.3 | 14 | 2 | 2 |
| Kariba | 49 | 23 | 3 | 3 |
| Lupane | 16.5 | 6 | 2 | 2 |
| Matobo | 102 | 18 | 2 | 2 |
| Mberengwa | 28 | 21 | 3 | 3 |
| Mbire | 14.91 | 26 | 3 | 2 |
| Mwenezi | 5.92 | 22 | 2 | 3 |
| Nkayi | 0 | 23 | 4 | 2 |
| Umguza | 0 | 22 | 4 | 2 |
| Umzingwane | 33 | 26 | 2 | 4 |
| Zvishavane | 71 | 15 | 3 | 3 |

- All districts received considering rainfall which was in the normal range except for Matobo and Insiza districts that received more rainfall thereby increasing flooding risk.
- All districts except Lupane experienced mid-season dry spells. Average number of dry days ranged between 6 and 26. More than 10 dry days cause moisture stress which in turn affect crop condition in the affected districts. Bubi, Chiredzi, Kariba, Mberengwa, Mbire, Mwenezi, Nkayi, Umguza and Umzingwane districts had high numbers of dry days leading to their Emergency classification.
- Prolonged dry spells affected pasture availability across the 14 districts as reflected by the pasture availability indicator. Only Bubi, Nkayi and Umguza had adequate pastures. In Binga, Chiredzi, Kariba, Mberengwa, Mbire and Zvishavane the pastures were reported to be inadequate with potential to only last 3-6 months. Insiza, Lupane, Matobo, Mwenezi and Umzingwane districts had critically inadequate pastures which may only last 1-3 months.
- Only Umzingwane district had adequate functional boreholes as shown by the Normal categorisation. Binga, Chiredzi, Kariba, Mberengwa, Mwenezi and Zvishavane districts had fairly adequate functional boreholes (65-85% functional boreholes).

B. Production Indicators

Table 6: Production indicator summary for January 2018

| District | Production Indicators | | | | | |
|------------|-----------------------|--------------------------|---------------------------------|-----------------------------------|--------------------------------------|----------------------------------------|
| | Crop condition | Livestock body condition | Number livestock poverty deaths | Crops pest and diseases outbreaks | Reported Cases of Livestock Diseases | Reported Cases of Water-Borne Diseases |
| Binga | 2 | 2 | 0 | 0 | 148 | 0 |
| Bubi | 3 | | 0 | 1 | 113 | 0 |
| Chiredzi | 1 | 2 | 0 | 3 | 12 | 5 |
| Insiza | 2 | 3 | 3 | 3 | 98 | 0 |
| Kariba | 3 | 3 | 0 | 2 | 56 | 0 |
| Lupane | | 2 | 0 | 3 | 34 | 0 |
| Matobo | 1 | 2 | 8 | 3 | 170 | 0 |
| Mberengwa | 1 | 2 | 0 | 2 | 712 | 41 |
| Mbire | 1 | 3 | 0 | 2 | 0 | 0 |
| Mwenezi | 1 | 2 | 0 | 3 | 2 | 9 |
| Nkayi | 2 | 3 | 0 | 1 | 54 | 0 |
| Umguza | 3 | 3 | 0 | 3 | 4 | 0 |
| Umzingwane | 3 | 3 | 0 | 1 | 103 | 0 |
| Zvishavane | 2 | 2 | 0 | 2 | 191 | 33 |

- Binga, Insiza, Nkayi and Zvishavane districts had a generally poor crop condition (Alert Category). In Chiredzi, Matobo, Mberengwa, Mbire and Mwenezi, the crop condition was reported to be very poor with signs of wilting in some fields.
- Binga, Chiredzi, Lupane, Matobo, Mberengwa, Mwenezi and Zvishavane had fair livestock body condition. The rest of the districts had good livestock body condition except for Bubi whose data was collected this month.
- Only Matobo district recorded livestock poverty deaths with wards 1 and 8 recording a total of 8 deaths.
- Binga district was worst affected (Emergency) by crop pests and diseases with more than 60% of cropped fields affected, mainly by fall armyworm. Kariba, Mbire, Mwenezi and Zvishavane reported cases of crop pests and diseases that affected an average of 2-30% of cropped fields.
- Mberengwa and Umzingwane were in the emergency category due to the incidences of livestock diseases in the two districts (major drivers were 543 FMD and 20 Anthrax cases respectively). Binga, Bubi, Kariba, Lupane, Matobo and Zvishavane had relatively high number of reported cases of livestock diseases resulting in the Alarm categorisation. Chiredzi, Insiza, Nkayi, Umguza, Umzingwane's cases of livestock diseases were categorised as Alert.
- Mberengwa recorded 41 cases of waterborne diseases leading to the Alarm categorisation. Insiza, Mwenezi, and Zvishavane districts had 5, 9 and 33 cases respectively hence the Alert categorisation.

C. Access Indicators

Table 7: Access indicator summary for January 2018

| District | Access Indicators | | |
|------------|-------------------|---------------------------------|-----------------|
| | School Attendance | livestock trekking distance for | Number of meals |
| Binga | | 7 | 2 |
| Bubi | 4 | 2 | 2 |
| Chiredzi | 3 | 3.09 | 2 |
| Insiza | 3 | 5 | 3 |
| Kariba | 3 | 3 | 2 |
| Lupane | 4 | 3 | 3 |
| Matobo | 4 | 2 | 2 |
| Mberengwa | | 3.6 | 2 |
| Mbire | | 3 | 2 |
| Mwenezi | 3 | 2.33 | 2 |
| Nkayi | 4 | 2 | 3 |
| Umguza | 4 | 5 | 2 |
| Umzingwane | 4 | 2 | 2 |
| Zvishavane | | 2.7 | 2 |

- 4 districts (Binga, Mberengwa, Mbire and Zvishavane) did not report on school attendance but the rest (7) had good attendance except for 4 districts that had average attendance. There was average attendance in Chiredzi, Insiza, Kariba and Mwenezi districts.
- Binga, Insiza and Umguza recorded longest livestock trekking distance to water (ranging between 5-7 kilometres) leading to the Alarm categorisation. The rest of the districts (Bubi, Chiredzi, Kariba, Lupane, Matobo, Mberengwa, Mbire, Mwenezi, Nkayi, Umzingwane and Zvishavane) had average distance ranging between 2 and 5 km.
- All reporting districts except Insiza, Lupane and Nkayi recorded average of 2 meals per day for the majority of households. These number of meals indicate limited access to food by some households in the district.

D. Trade Indicators

Table 8: Trade indicator summary for January 2018

| District | Trade Indicators | | | | | | | |
|------------|------------------|------------|-------------|--------------------------|-------------|---------------|--------------------|--------------|
| | Cattle price | Goat price | Sheep price | Indigenous chicken price | Maize price | Sorghum price | Pearl millet price | Rapoko price |
| Binga | 350 | 25 | 30 | 5 | 5 | 5 | 5 | |
| Bubi | 450 | 40 | 50 | 6 | 5 | 6 | 6 | |
| Chiredzi | 308.82 | 29.41 | 46.47 | 4.94 | 4.71 | 4.53 | 4.53 | 5.9 |
| Insiza | 550 | 40 | 60 | 7 | 6 | 6 | 6 | 10 |
| Kariba | 450 | 20 | 35 | 5 | 5 | | | |
| Lupane | 250 | 35 | 35 | 5 | 7 | 7 | 7 | 10 |
| Matobo | 400 | 3 | 60 | 3 | 6 | 6 | 5 | 12 |
| Mberengwa | 400 | 40 | 70 | 5 | 6 | 6 | 7 | 9 |
| Mbire | 250 | 20 | 35 | 3 | 4 | 3 | | |
| Mwenezi | 337.5 | 30.42 | 47.08 | 5 | 5.42 | 4.29 | 4.29 | 9.36 |
| Nkayi | 350 | 45 | 50 | 5 | 5 | 8 | 9 | 9 |
| Umguza | 500 | 50 | 60 | 6 | 5 | 7 | 8 | 8 |
| Umzingwane | 500 | 50 | 70 | 8 | 5 | 10 | 10 | 12 |
| Zvishavane | 400 | 40 | 60 | 6 | 6 | 6 | 7 | 7 |

- Only Lupane and Mbire reported cattle prices (USD250 per beast) that were slightly below normal hence the Alert categorisation. The rest of the district had normal prices, mostly above average prices thereby guaranteeing return for investment to cattle producing households.
- The average goat price for Matobo was very low (USD3 per beast) hence viable for households seeking to dispose some of their goats onto the market. Binga Chiredzi, Kariba and Mbire districts also had goat prices below average prices (USD25, USD29.41, USD20 and USD20 respectively).
- All districts had sheep prices that were above average prices except Binga, Kariba, Lupane and Mbire districts.
- The prices of indigenous chicken were normal across the districts except in Matobo and Mbire where they were selling for USD 3 per bird.
- The price of maize was normal across all the reporting districts.
- Sorghum was selling at above average prices across all districts except in Mbire where it was available at USD3 per bucket.
- Pearl millet was available at above average prices in all districts except in Lupane and Mbire where it was available on the market.
- Rapoko was selling USD5.9 per bucket in Insiza district (Alarm). 5 additional districts (Mberengwa, Mbire, Mwenezi, Nkayi, Umguza and Zvishavane) also had Rapoko prices that were below average (Alert).

Annex 1: Flood monitoring thresholds for water level in selected rivers

Table 9: River water flow categorisation

| Station number | River | Site | Province | Maximum flow/level | Unit | Normal | Alert Trigger 1 | Alarm Trigger 2 | Emergency Trigger 3 |
|-----------------------|-----------|-----------------------|--------------|--------------------|-------------------|----------|-----------------|-----------------|---------------------|
| A38 | Gwayi | Dahlia | Mat North | 147 | m ³ /s | <66.15 | 66.15 | 88.2 | 117.6 |
| B35 | Limpopo | Beit Bridge | Mat South | 6 | m ³ /s | <2.7 | 2.7 | 3.6 | 4.8 |
| C109 | Musengezi | Chidodo | Mash Central | 7.2 | m ³ /s | <3.24 | 3.24 | 4.32 | 5.76 |
| C59 | Sanyati | Copper Queen | Midlands | 2320 | m ³ /s | <1044 | 1044 | 1392 | 1856 |
| C61 | Manyame | Chinhoyi Bridge | Mash West | 16.5 | m ³ /s | <7.425 | 7.425 | 9.9 | 13.2 |
| C68 | Musengezi | Centenary | Mash Central | 80.7 | m ³ /s | <36.315 | 36.315 | 48.42 | 64.56 |
| D75 | Mazowe | Mazowe Bridge | Mash Central | 577 | m ³ /s | <259.65 | 259.65 | 346.2 | 461.6 |
| E130 | Odzi | Odzi Gorge | Manicaland | 383 | m ³ /s | <172.35 | 172.35 | 229.8 | 306.4 |
| E21 | Save | Condo Dam | Manicaland | 2853 | m ³ /s | <1283.85 | 1283.85 | 1711.8 | 2282.4 |
| E74 | Runde | Confluence with Tokwe | Masvingo | 2021 | m ³ /s | <909.45 | 909.45 | 1212.6 | 1616.8 |
| ZGP25 | Zambezi | Victoria Falls | Mat North | 9352 | m ³ /s | <4208.4 | 4208.4 | 5611.2 | 7481.6 |
| Crisis modifier range | | | | | | < 45% | 45.1%<X<60 | 60.1%<X<80% | < 80.1% |