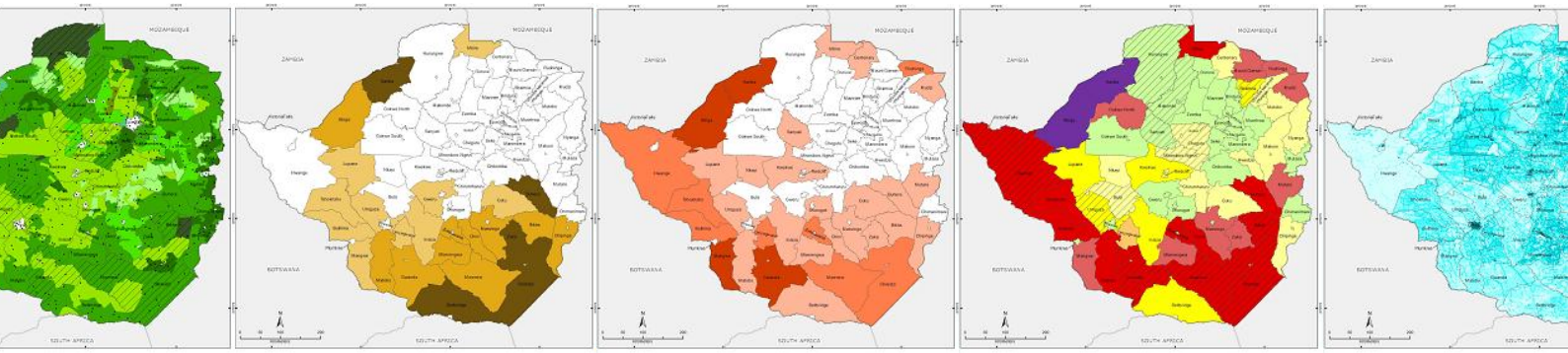
OF ZIMBABWE



Integrated Context Analysis (ICA)

In collaboration with the World Food Programme

October 17, 2014

Integrated Context Analysis (ICA)

Analysis carried out in **2014**

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October 17, 2014

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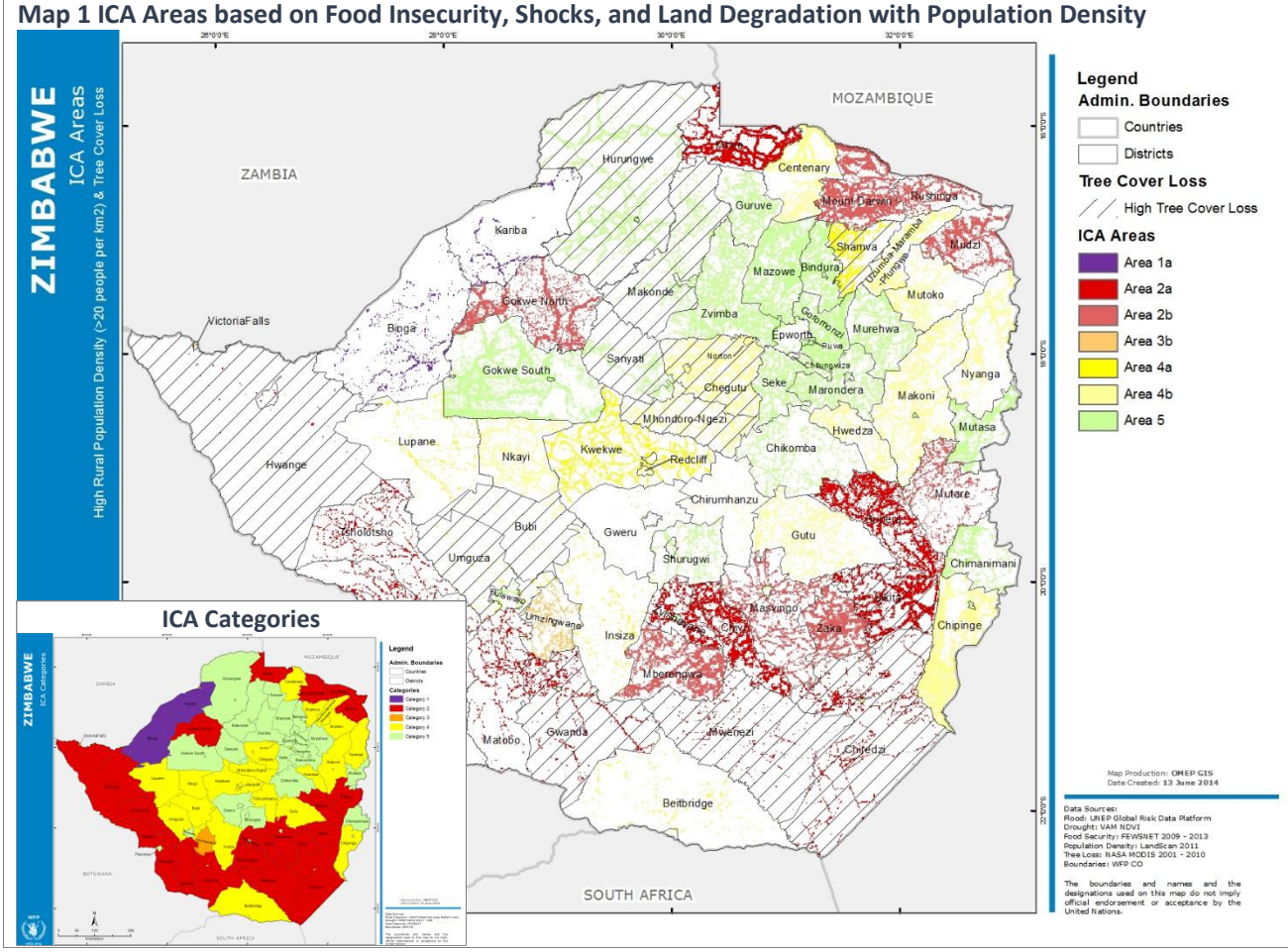
Part 1. Summary of ICA Findings

The ICA for [Title] found five distinct patterns of overlap between levels of recurring food insecurity and levels of risk of exposure to natural shocks. These patterns yield ICA **Categories 1 to 5** and their respective areas as presented in the tables below. **Districts** experiencing these patterns were then categorised accordingly and mapped (see ***Map 1***). The ICA Categories and areas provide evidence to inform broad programmatic strategies and a basis for discussion with partners. Details on districts and area implications are provided in ***Part 2*** of this report.

CATEGORY 1	**Longer-term programming** to address conditions of protracted crises and frequent natural shocks that impede recovery, aiming to improve food security, reduce risk and build resilience to natural shocks and other stressors.
CATEGORY 2	Programming to address **seasonal food insecurity** and/or to **support post-shock recovery**, aiming to reduce risk and build resilience to natural shocks and other stressors.
CATEGORY 3	**Longer-term programming** to address conditions of long-term (chronic) food insecurity likely due to non-climatic causes (e.g., pervasive poverty, protracted conflict, etc.) aiming to improve food security and build resilience to man-made shocks and stressors.
CATEGORY 4	Programming that **strengthens early warning and preparedness** (considering land degradation trends) to reduce risk and build resilience to natural shocks and other stressors.
CATEGORY 5	Programming that **strengthens preparedness** to reduce risk and build resilience to natural shocks and other stressors.

Risk of Exposure to **Natural Shocks**	**Recurrence of Food Insecurity above 20%**		
	LOW	**MEDIUM**	**HIGH**
LOW	**Area 5**	**Area 3B**	**Area 3A**
MEDIUM	**Area 4 B**	**Area 2 B**	**Area 1 B**
HIGH	**Area 4 A**	**Area 2 A**	**Area 1 A**

Map 1 ICA Areas based on Food Insecurity, Shocks, and Land Degradation with Population Density



In principle, food security programmes should aim for areas to move from categories of high or medium levels of recurrence of food insecurity into the category of lowest recurrence (i.e. from right to left in the table above) and if these programmes are delivered with the added objective of reducing risk of exposure and building resilience to natural shocks, areas should also gradually move from the categories of highest or medium level of risk of exposure to natural shocks into the category of lowest risk (i.e. from the bottom to the top of the table).

Population estimates

Food insecure population estimates were calculated by applying the **total average percent of food insecurity** of the 15 data points of the ZimVAC data (past **five** years) to the 13.1 million population figures (source: National Census Report 2012, Zimbabwe National Statistics Agency (ZIMSTAT)) yielding the following estimates:

1,081,000	**Longer-term planning**: the number of **food insecure** people[1].
414,000	Of the above, the number of **most vulnerable** (consistently) food insecure[2].
667,000	**Preparedness planning: Estimated maximum** additional food insecure in the event of a shock (be it natural or man-made).[3]

[1] Average number of food insecure people over the recall period, capturing people who are food insecure, have experienced food insecurity at some point and/or could be recovering from an event that caused them to be regarded as food insecure.

[2] Average of the two lowest figures occurring over the recall period in July September. This is the proxy for estimated chronic food insecurity.

[3] Difference between the average number of food insecure and the estimated chronically food insecure population (in note 2).

Food security

The food security analysis found that recurrence of food insecurity was highest in the north-western districts **Binga** (Matabeleland North) and **Kariba** (Mashonaland West) while most of the districts falling along the southern perimeter of the country experience medium levels of recurrence. Central areas generally have low recurrence of food insecurity among 20% or more of the population.

Natural Shocks

Districts in Matabeleland North, south-eastern Masvingo, northern Mashonaland and southern Manicaland Provinces appear to be those most affected by floods while the southern part of the country (Matabeleland South, Masvingo, parts of Manicaland and Midlands provinces) appear most affected by drought. In conclusion, Matabeleland North, Matabebeland South and Masvingo appear to be the provinces most affected by natural shocks, though pockets with high natural shock risk are dispersed around the country.

Land degradation

Large portions of Mashonaland West, Masvingo and Matabeleland North provinces were classified by the ICA as having high land degradation, as was Shamwa district (in Mashonaland Central) while Mashonaland East province appears least affected.

Livelihoods

The most prevalent livelihood zone in **Category 1** is the *Kariba Valley and Kariangwe-Jambezi Communal* livelihood zone (Communal Farming). The *Masvingo Manicaland Middleveld Smallholder* (Commercial Smallholder) livelihood zone is the most prevalent one in **Category 2** while the main livelihood zone found in **Category 3** is the *Matabeleland Middleveld Communal* livelihood (Communal Farming). The most prevalent livelihood zones in **Category 4** are the *Southern Cattle and Cereal Farming* (Mixed Farming) and *Save River Valley and Ndowoyo Communal* (Communal Farming) ones and finally, the most prevalent livelihood zone in **Category 5** is the *Highveld Prime Cereal and Cash Crop Resettlement* (Commercial Farming) zone. Across these, and across categories, the *Masvingo Manicaland Middleveld Smallholder* (Commercial Smallholder) livelihood zone (Category 2) would appear to be the one with the greatest proportion of the food insecure population.

Nutrition

In all districts except one (Tsholotsho GAM>5%) **wasting** was found to be within acceptable limits (2.4% GAM). **Stunting** however has medium to high prevalence occurring throughout the entire country. An overlay of stunting data onto the combined recurrence food insecure populations above 20% of the district total and poor food security classifications show that districts with critical levels of stunting are found in the areas with a low recurrence of food insecure populations above 20%, suggesting that reasons for stunting may not necessarily be related to quantity of food, but rather the diversity of diets and other health related factors. This should be explored further by partners to inform the type of longer-term programmatic strategy to address stunting and under-nutrition.

Seasonality

Maps of ZimVAC and FEWSNET data indicate a strong seasonal patterns of food security. This information can be used to determine districts where food insecurity is more chronic or transient in nature, and should be used to guide the design of programmatic strategies (e.g. longer-term year round efforts, seasonal safety nets, early warning and preparedness, etc.) and the timing of different programmes activities that vary throughout the country.

Part 2. ICA Core Findings

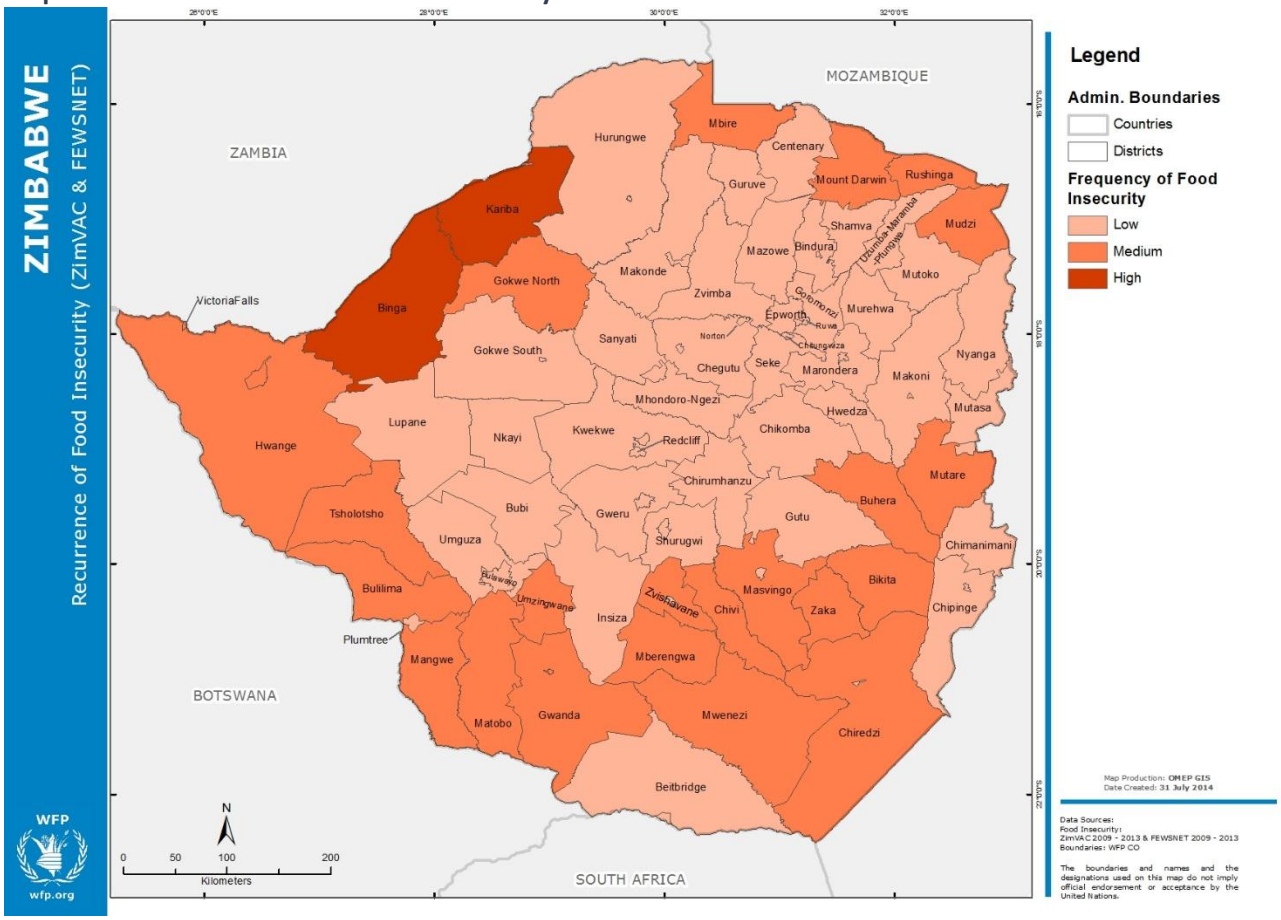
2.1. Core ICA Dimensions

2.1.1. Food security

About food security data. The food security analysis was carried out using data from the Vulnerability Assessment Committee (**ZimVAC**) and **FEWSNET** food security outlooks. ZimVAC and FEWNSET data were available from **2009** through **2013**. ZimVAC data were collected once a year but only the last three quarters of the consumption period were considered such that in total **fifteen datapoints** were available. FEWSNet data were produced quarterly for the five year period such that in total **twenty rounds** were available. For the purposes of the analysis, data was aggregated by **Admin02** which in [Title] is called **district**. The key indicator utilised for the analysis was the **proportion of food insecure**. The food security threshold was set at **20%**. Details on analytical methods may be found in ***Section 4.1 (pg.29)***.

Key findings on food security. The food security analysis found that recurrence of food insecurity was highest in the north-western districts **Binga** (Matabeleland North) and **Kariba** (Mashonaland West) while most of the districts falling along the southern perimeter of the country experience medium levels of recurrence. Central areas of the country general had low levels of recurrence of food insecurity among 20% or more of the population.

Map 2: Combined recurrence of food insecurity – ZIMVAC and FEWSNet



2.1.2. Natural shocks

The natural shocks of most concern in [Title] were identified as **floods** and **drought**.

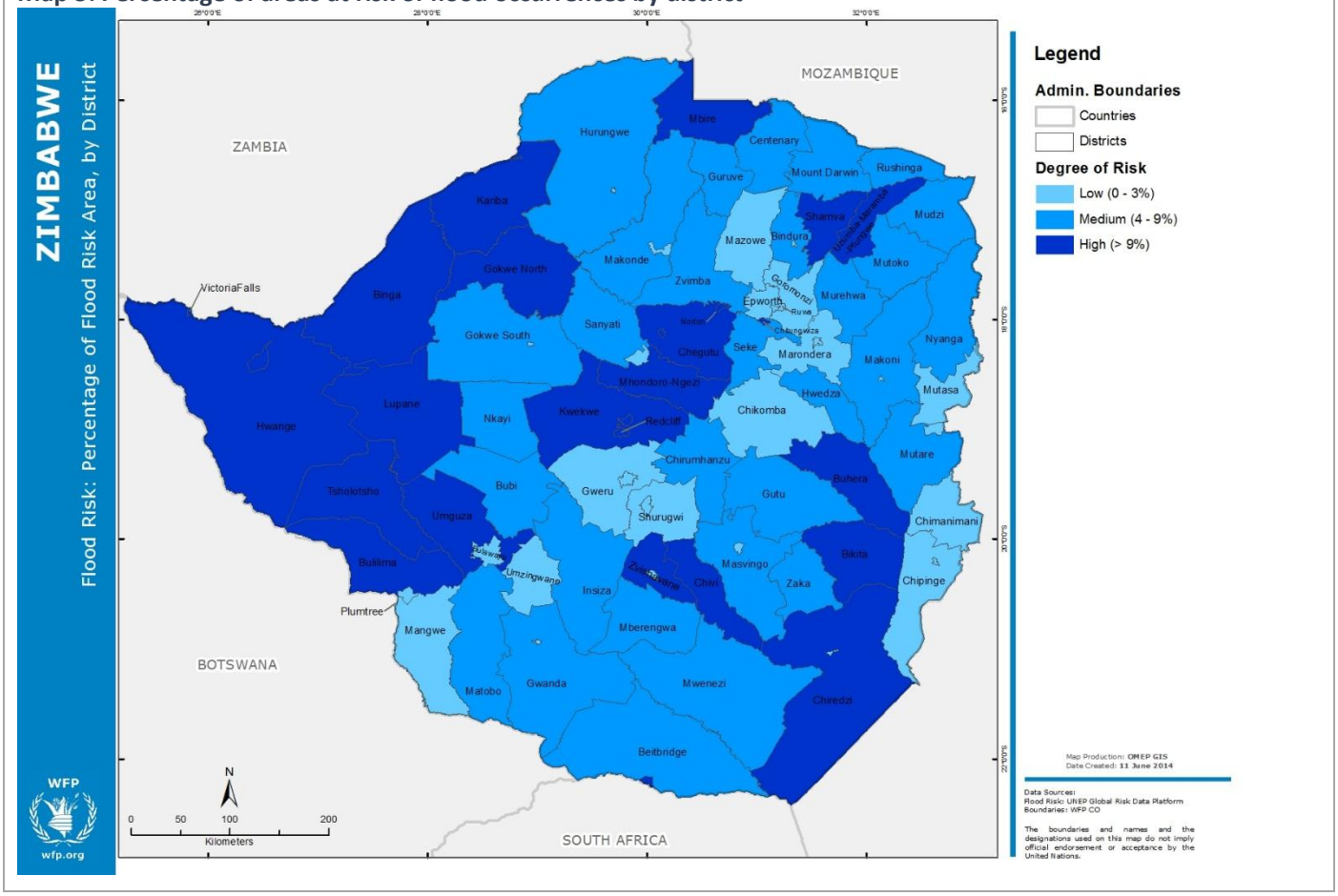
About flood data. Limited historical data prevented the precise determination of the frequency and areas of flood occurrence in the last 5 years. Consequently, the flood frequency dataset from **UNEP** was selected for the analysis as it ensured the detection of those **districts** regularly affected by floods, as well as providing additional information on long

term trends since it has been modelled using historical flood events from Dartmouth between 1999 and 2007. These were computed and results placed in 3 classes (below) and displayed in ***Map 3***:

Extent of flooded area			
% Flood surface	**<= 3.5%**	**3.5% - 9%**	**>= 9%**
ICA Reclassification	LOW (1)	MEDIUM (2)	HIGH (3)

Key findings on floods. As flood frequency did not change significantly throughout the different districts, it was decided not to integrate it into the analysis and instead consider only the flood extent or magnitude linked to the frequency of occurrence – i.e. the calculation of surface percentage of flood prone areas by district. Matabeleland North province and the south-eastern parts of Masvingo province resulted most affected.

Map 3: Percentage of areas at risk of flood occurrences by district



About drought data. National level data on drought occurrences was not available, thus two remote-sensed data sets were used as a proxy to understand exposure to droughts: **Water Requirement Satisfaction Index[1] (WRSI)** and **Normalized Difference Vegetation Index (NDVI)**. The integration these two datasets identifies both areas of convergence and additional areas not been captured by the frequency of WRSI. The long-term records from both indicators are reasonably comparable (WRSI 2000-2013; NDVI 1998-2012) – combining the WRSI and number of poor growing seasons (NDVI) was done as follows. Details on analytical methods may be found in ***Section 4.2***:

[1] Water Requirement Satisfaction Index is an indicator of crop performance based on the availability of water to the crop during a growing season. WRSI for a season is based on the water supply and demand a crop experiences during a growing season. It is calculated as the ratio of seasonal actual evapotranspiration to the seasonal crop water requirement. Source: USGS.

Maximum Frequency of poor growing seasons (1998 - 2013)

WRSI DROUGHT	LOW (1)	MEDIUM (2)	HIGH(3)
LOW (0 -1)	2	3	4
MEDIUM (2)	3	4	5
HIGH (3)	4	5	**6**

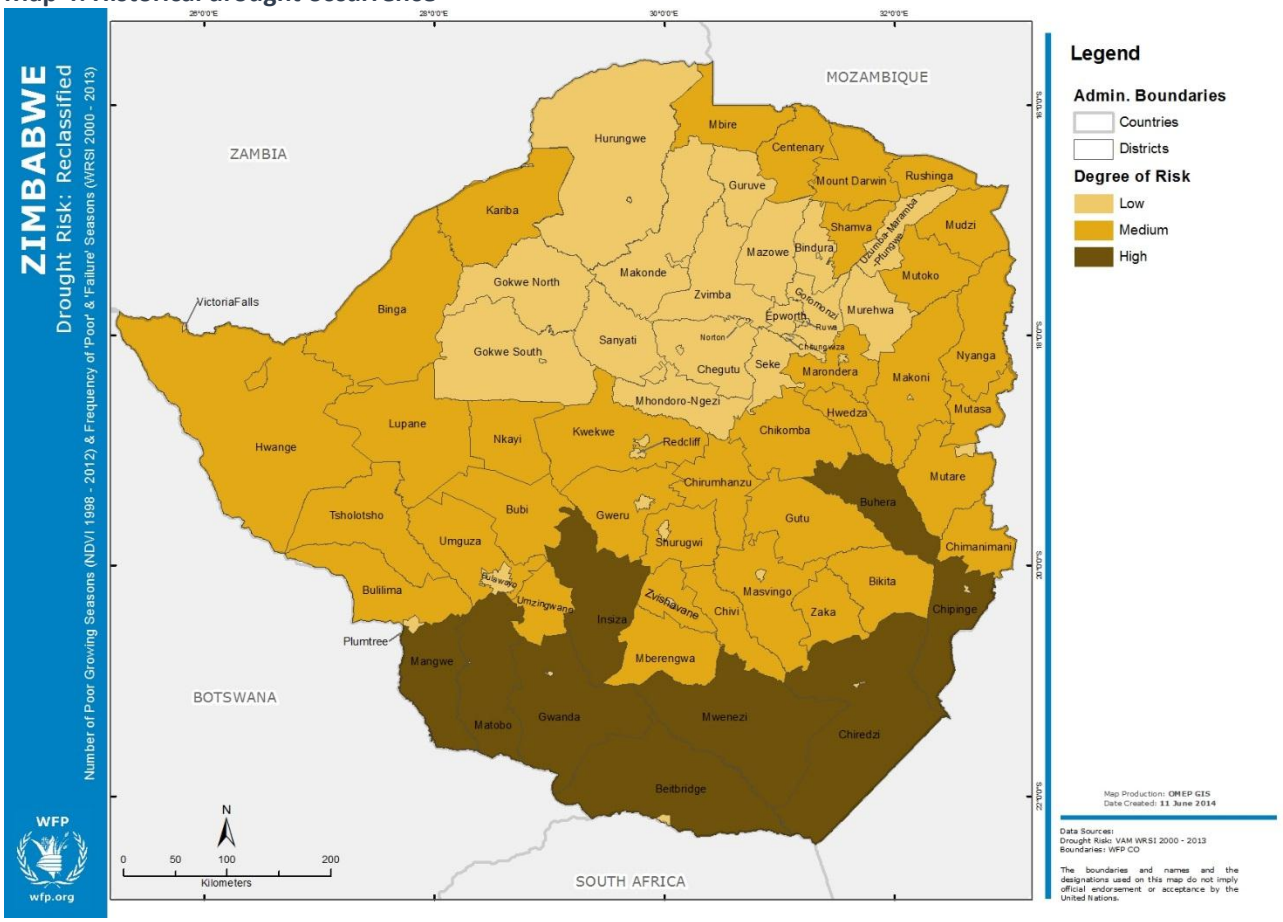
RISK SCORE
VERY LOW
LOW
MODERATE
HIGH
VERY HIGH

These were then reclassified into the following 3 categories and displayed in ***Map 4***:

2 Drought risks (WRSI & NDVI)	1 - 2	3 - 4	5 - 6
Reclassification	**LOW**	**MEDIUM**	**HIGH**

Key findings on drought. The southern part of the country appears most affected by drought with the situation gradually improving as one moves northerly. Mashonaland West province appears least affected while Matabeleland South and Masvingo provinces instead are most severely affected.

Map 4: Historical drought occurrence



2.1.2.1. Merging floods and drought

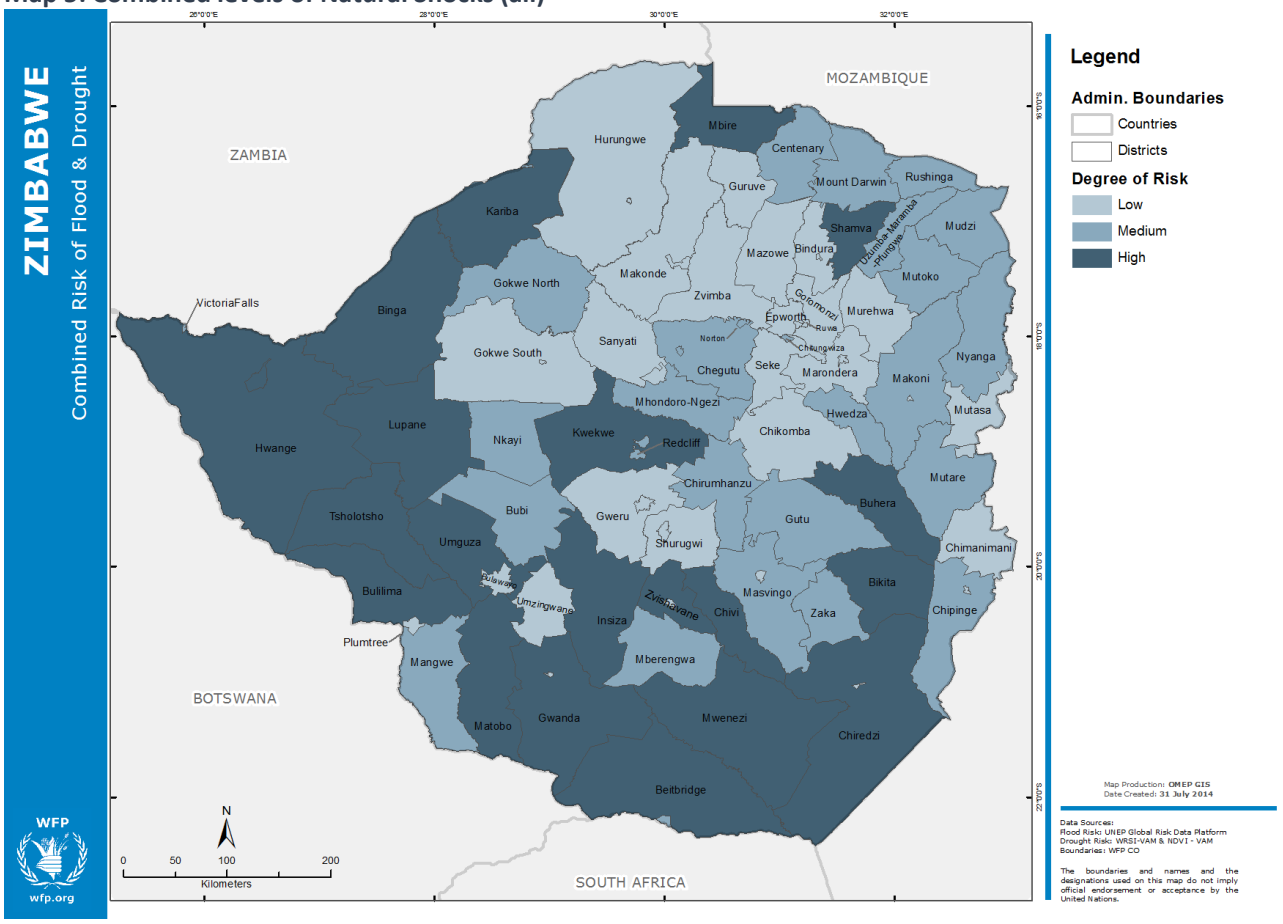
Once the estimated average values of drought and flood risks were computed, a new variable was created to estimate the risk of these shocks to each district. For each of these two shocks, each district was assigned a risk value of: 0 (low-level); 1 (medium-level); and 2 (high level):

	Drought Risk		
Flood Risk	LOW (1)	MEDIUM (2)	HIGH (3)
LOW (1)	**2**	**3**	**4**
MEDIUM (2)	**3**	**4**	**5**
HIGH (3)	**4**	**5**	**6**

Combined levels by **of natural shock by district**			
ICA Reclassification	LOW (1)	MEDIUM (2)	HIGH (3)

Key findings on natural shocks. In general Matabeleland North, Matabebeland South and Masvingo appear to be the provinces most affected by natural shocks, while smaller pockets with high natural shock risk are dispersed around the country (Mbire, Shamva and Kwekwe districts).

Map 5: Combined levels of Natural Shocks (all)



2.1.3. Land degradation

About land degradation data. No land degradation data was available, thus a deforestation analysis was performed using remotely sensed data[2] as a proxy. Deforestation trends between 2000 and 2010, in terms of **percentage of tree cover loss** and **surface of tree cover loss (km2)** were calculated and classified as below (details on analytical methods may be found in ***Section 4.3 (pg.36)***):

[2] Source: Hansen/UMD/Google/USGS/NASA

Deforestation by district			
ICA Reclassification	LOW (1)	MEDIUM (2)	HIGH (3)
Percentage of Tree Cover Loss	**0 - 6%**	**6.1 - 13.5%**	**13.6 - 32%**
Surface of Tree Cover Loss	**0 - 542 Km2**	**543 - 1,622 Km2**	**> 1,622Km2**

These two variables were then combined as an estimation of general severity of deforestation.

		Km2 of Surface Loss		
		LOW (1)	MEDIUM (2)	HIGH (3)
% of Surface Loss	LOW (1)	**2**	**3**	**4**
	MEDIUM (2)	**3**	**4**	**5**
	HIGH (3)	**4**	**5**	**6**

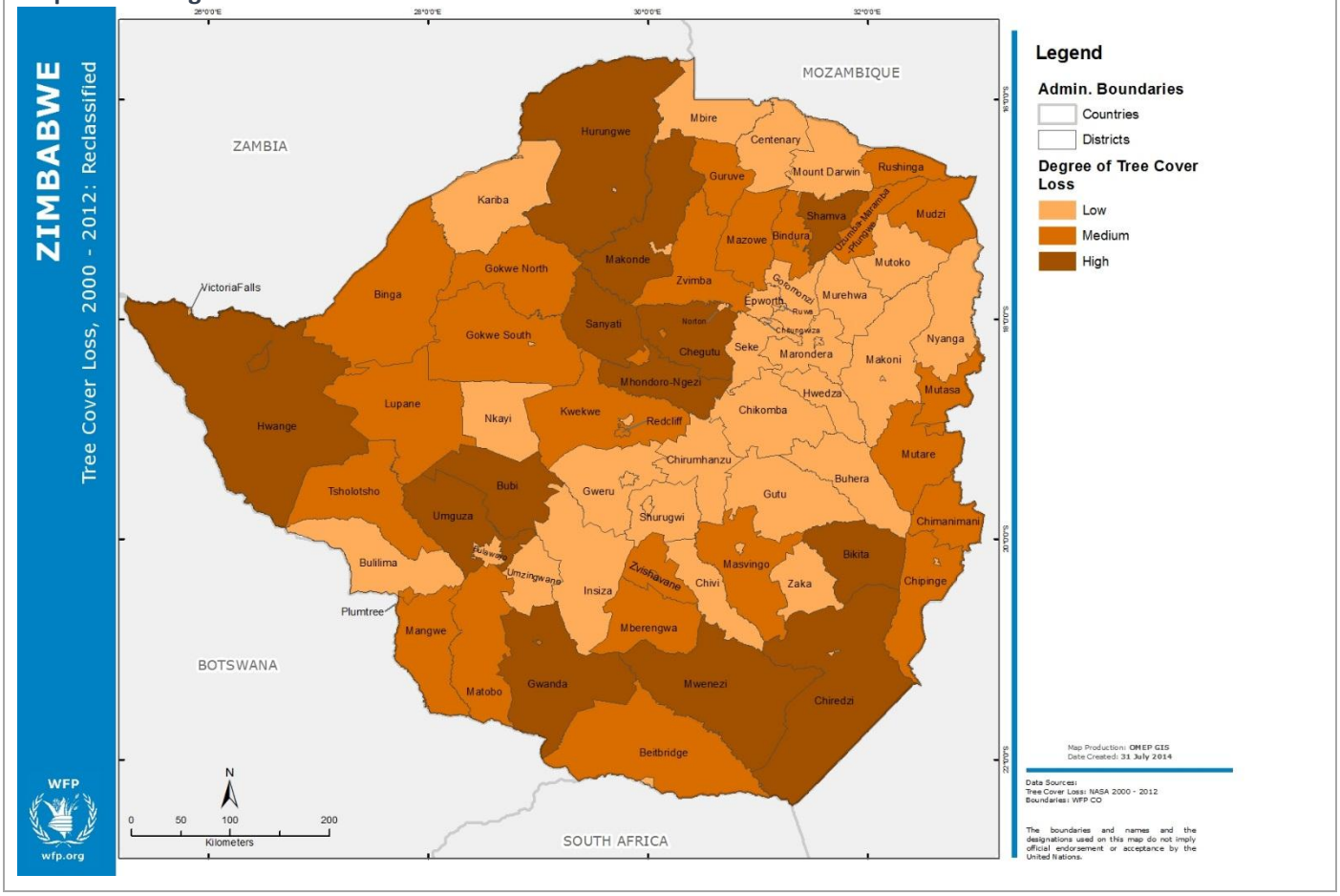
SEVERITY SCORE
VERY LOW
LOW
MEDIUM
HIGH
VERY HIGH

These were then reclassified into the following 3 categories and displayed in ***Map 6***:

Levels of land degradation	Very Low	Low - Medium	High - Very High
Reclassification	**Low**	**Medium**	**High**

Key findings on land degradation.

Map 6: Land degradation



2.1.4. ICA Areas

The ICA for [Title] found five distinct patterns of overlap between levels of recurring food insecurity and exposure to natural shocks. These patterns have been associated to **Categories 1** through **5** (Category 1 capturing the most severe levels of risk

and Category 5 capturing the least severe), which are further broken down into distinct Areas (see ***Table 1***). Locations throughout the country, experiencing these patterns, have been categorised accordingly and mapped (see ***Map 7***).

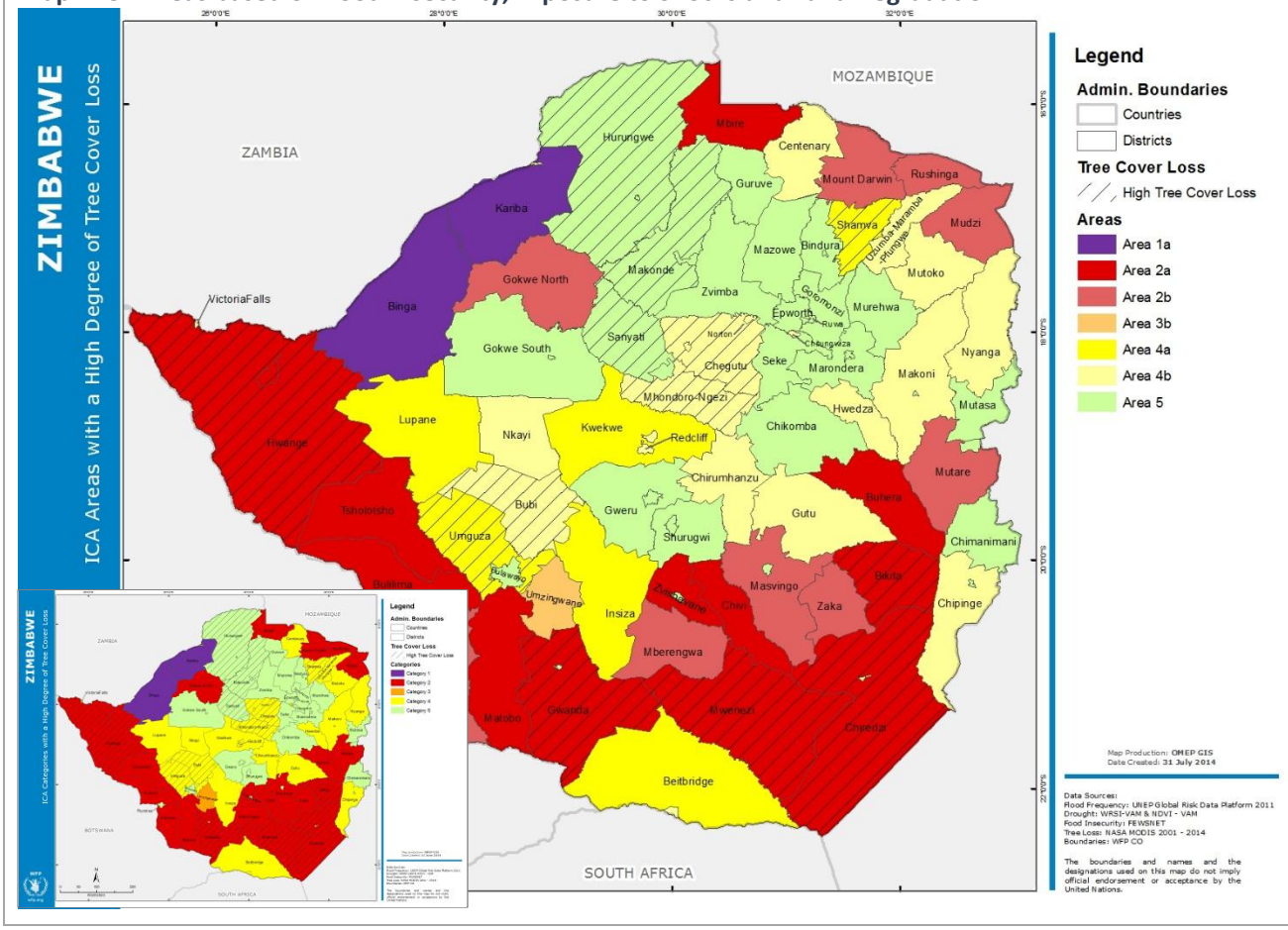
The ICA Categories provide evidence to inform broad programmatic strategies, a basis for discussion with partners and a foundation on which to expand through additional analyses and information. Details on the ICA Categories and Areas and their programmatic implications are provided in ***Part 2***. The information gathered can be used by Government to support overall strategy design and through discussions and agreements can inform partners on where their efforts can be targeted and coordinated to ensure that their programming supports and complements on-going government efforts, thus avoiding duplication and gaps.

Table 1: ICA Categories and Areas

CATEGORY 1	**Longer-term programming** to address conditions of protracted crises and frequent natural shocks that impede recovery, aiming to improve food security, reduce risk and build resilience to natural shocks and other stressors.
CATEGORY 2	Programming to address **seasonal food insecurity** and/or to **support post-shock recovery**, aiming to reduce risk and build resilience to natural shocks and other stressors.
CATEGORY 3	**Longer-term programming** to address conditions of long-term (chronic) food insecurity likely due to non-climatic causes (e.g., pervasive poverty, protracted conflict, etc.) aiming to improve food security and build resilience to man-made shocks and stressors.
CATEGORY 4	Programming to **strengthen early warning and preparedness** (considering land degradation trends) to reduce risk and build resilience to natural shocks and other stressors.
CATEGORY 5	Programming that **strengthens preparedness** to reduce risk and build resilience to natural shocks and other stressors. profile

Risk of Exposure to **Natural Shocks**	**Recurrence of Food Insecurity above 20%**		
	LOW	**MEDIUM**	**HIGH**
LOW	**Area 5**	**Area 3B**	**Area 3A**
MEDIUM	**Area 4 B**	**Area 2 B**	**Area 1 B**
HIGH	**Area 4 A**	**Area 2 A**	**Area 1 A**

Map 7 ICA Areas based on Food Insecurity, Exposure to Shocks and Land Degradation



2.2. Core ICA Lenses

2.2.1. Nutrition

About nutrition data. Insufficient national-level nutrition data was available to conduct a trend analysis. Thus, the most recent nutritional survey (National Nutrition Survey, 2010) was used to compare against the 5 year combined trend analysis of ZimVAC recurrence of where food insecure populations exceeded the 20% of the district total and FEWSNET food security classifications. Wasting and stunting were mapped according to the WHO cut-off values for public health significance (Reference: WHO; 1995):

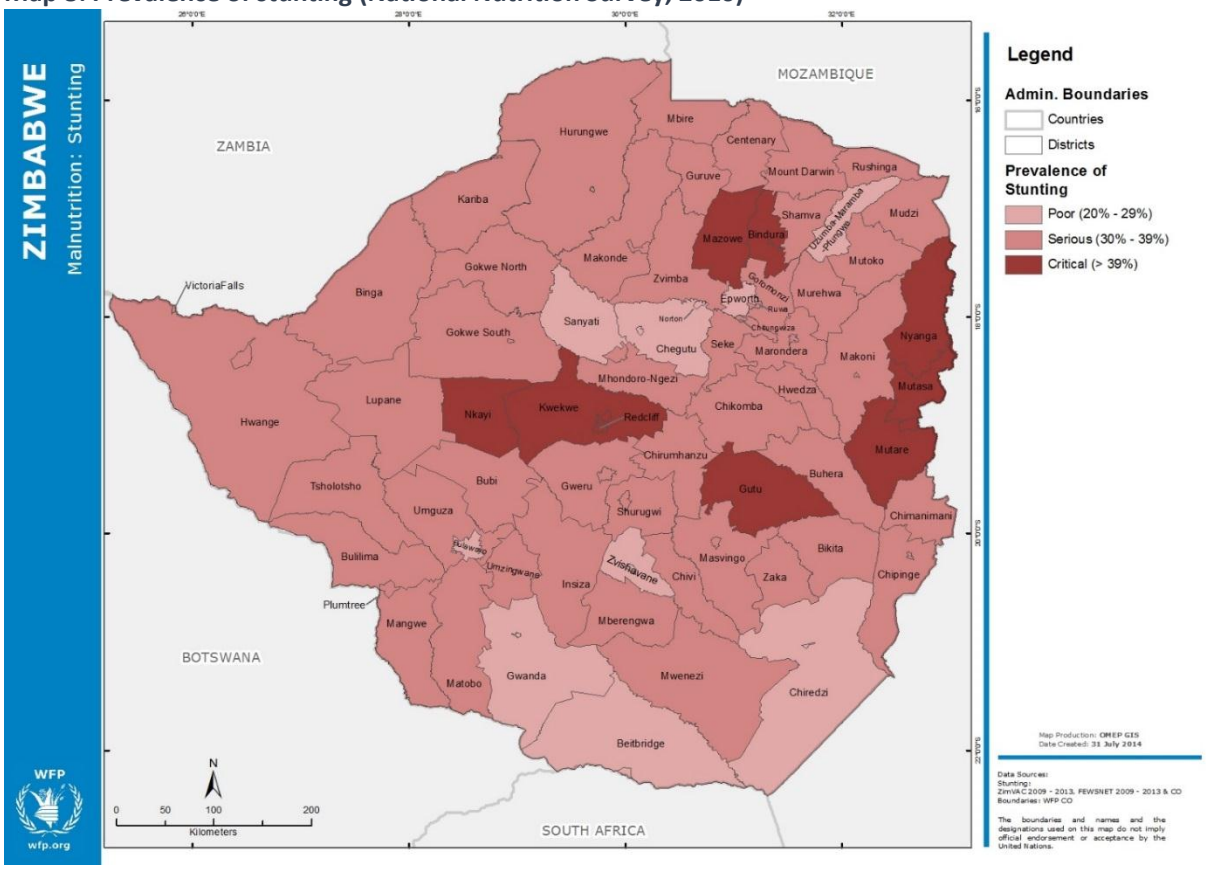
Wasting (low weight for height)	**Stunting (low height for age)**
< 5%: Acceptable	< 20%: Low prevalence
5-9%: Poor	20-29%: Medium prevalence
10-14%: Serious	30-39%: High prevalence
≥ 15%: Critical	≥ 40%: Very high prevalence

Key findings on nutrition. The national nutrition survey data of 2010 showed that in all districts except one (Tsholotsho GAM>5%) **wasting** was found to be within acceptable limits (2.4% GAM). The rates of **stunting** however show a more serious picture, with a medium to high prevalence occurring throughout the entire country (***Map 8***). WHO's Interpretation Guide for nutrition states that the percentage of stunted children reflects the cumulative effects of long-term nutritional deprivation and infections since and even before birth, and that stunting can be interpreted as an indication of poor environmental conditions or long-term restriction of a child's growth potential as a result of poor diets or recurrent infections. Critically, stunting often results in delayed mental development, poor school performance and reduced intellectual capacity which in turn affects economic productivity at national level. Children born to smaller women are at

greater risk of having a low birth weight, which in turn contributes to the intergenerational cycle of malnutrition as infants of low birth weight or retarded intrauterine growth also tend be smaller as adults[3].

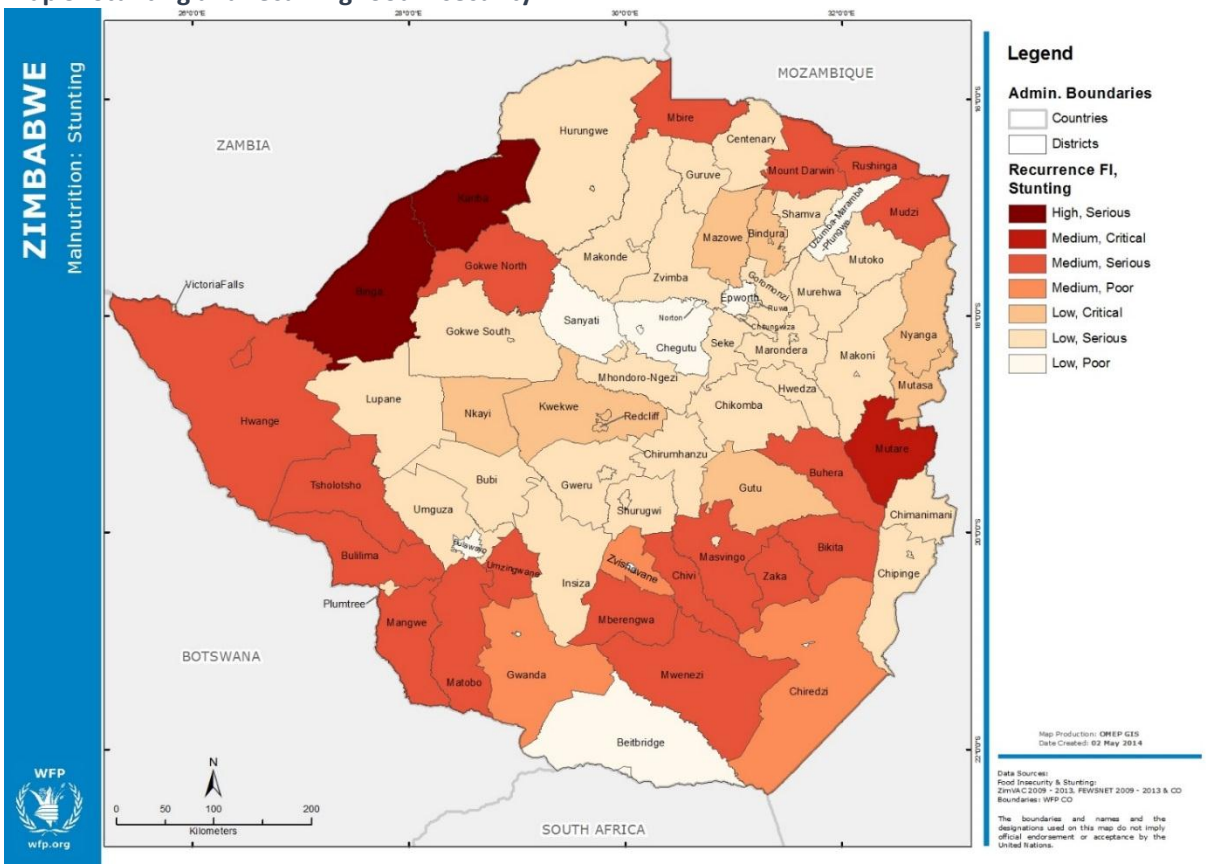
Stunting data was overlaid onto the combined recurrence of (ZimVAC trend analysis of) food insecure populations above 20% of the district total and (FEWSNET trend analysis of) poor food security classifications (shown in Map 23) to identify areas of convergence. This overlay is presented in ***Map 9.*** Results show that districts with critical levels of stunting are found in the areas with a low recurrence of food insecure populations above 20%. Given the differences in the lower percentage of populations experiencing food insecurity compared to the higher percentages of stunting, reasons for stunting may not necessarily be related to quantity of food, but rather the diversity of diets and other health related factors. While on the contrary high food insecurity levels in the last 5 years may have been linked to critical events. This will be need to be explored further by partners to inform the type of longer-term programmatic strategy to address stunting and under-nutrition.

Map 8: Prevalence of stunting (National Nutrition Survey, 2010)



[3] WHO: Nutrition Landscape Information System (NLIS) country profile indicators: interpretation guide; 2010 (ISBN 978 92 4 159995 5)

Map 9: Stunting and recurring food insecurity

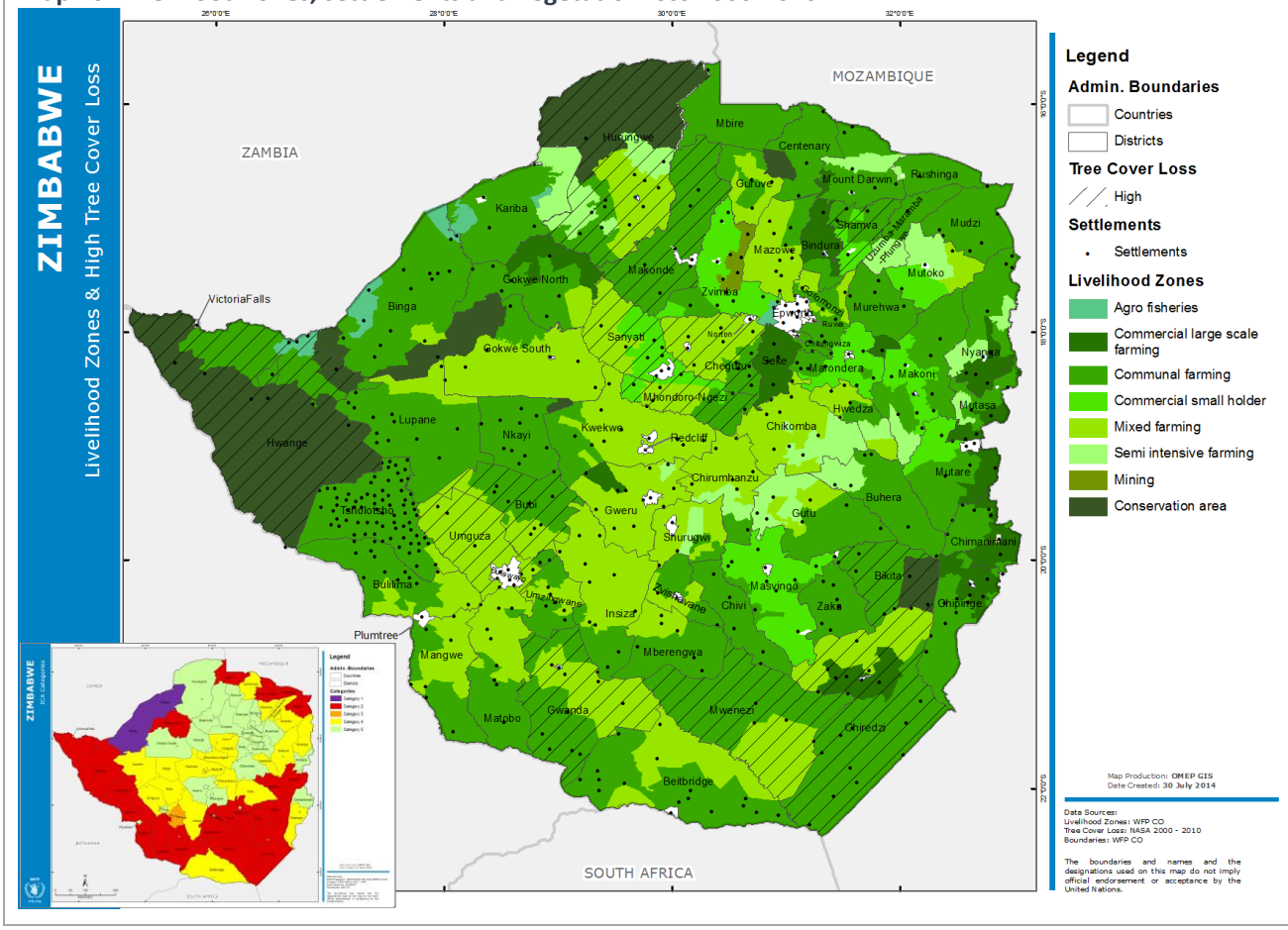


2.2.2. Livelihoods

About livelihoods data. An understanding of livelihoods and seasonality informs how shocks may impact households, the times of the year that are most critical for people, and how to select programming interventions. Twenty-four main livelihood zones were identified in Zimbabwe (**Zimbabwe Country Office, 2012**). These were reclassified into nine broad categories, these were mapped and settlement points overlaid to highlight the spread of the different livelihood classes by population presence. Details on additional interpretation and aggregation may be found in ***Section 4.4***:

Key findings on livelihoods. The most prevalent livelihood zones by vulnerability category and focus area can be identified (see fully compiled table in Annex III). In summary, the most prevalent livelihood zone in the **Category 1** (most vulnerable) districts is the *Kariba Valley and Kariangwe-Jambezi Communal* livelihood zone (Communal Farming), followed by the *Cereal and Low Cotton Communal* (Commercial Farming) livelihood zone. The *Masvingo Manicaland Middleveld Smallholder* (Commercial Smallholder) livelihood zone is the most prevalent zone in **Category 2**, although it is more heavily represented in the areas falling in Focus area 2b as opposed to Focus area 2a, where instead the *Mwenezi, Chivi and South Midland Communal, Save River Valley and Ndowoyo Communal* and *Masvingo Manicaland Middleveld Smallholder* (all Communal Farming) are the most prevalent livelihoods zones. The main livelihood zone found among the food insecure in **Category 3** areas is the *Matabeleland Middleveld Communal* livelihood (Communal Farming) zone while the most prevalent livelihood zones in **Category 4** are the *Southern Cattle and Cereal Farming* (Mixed Farming) and *Save River Valley and Ndowoyo Communal* (Communal Farming) ones. The most prevalent livelihood zone among the food insecure population living in areas falling into **Category 5** is the *Highveld Prime Cereal and Cash Crop Resettlement* (Commercial Farming) zone. Across these most prevalent livelihood zones, across categories, the *Masvingo Manicaland Middleveld Smallholder* (Commercial Smallholder) livelihood zone (Category 2) would appear to be the one with the greatest proportion of the food insecure population.

Map 10: Livelihood zones, settlements and vegetation loss 2000-2010

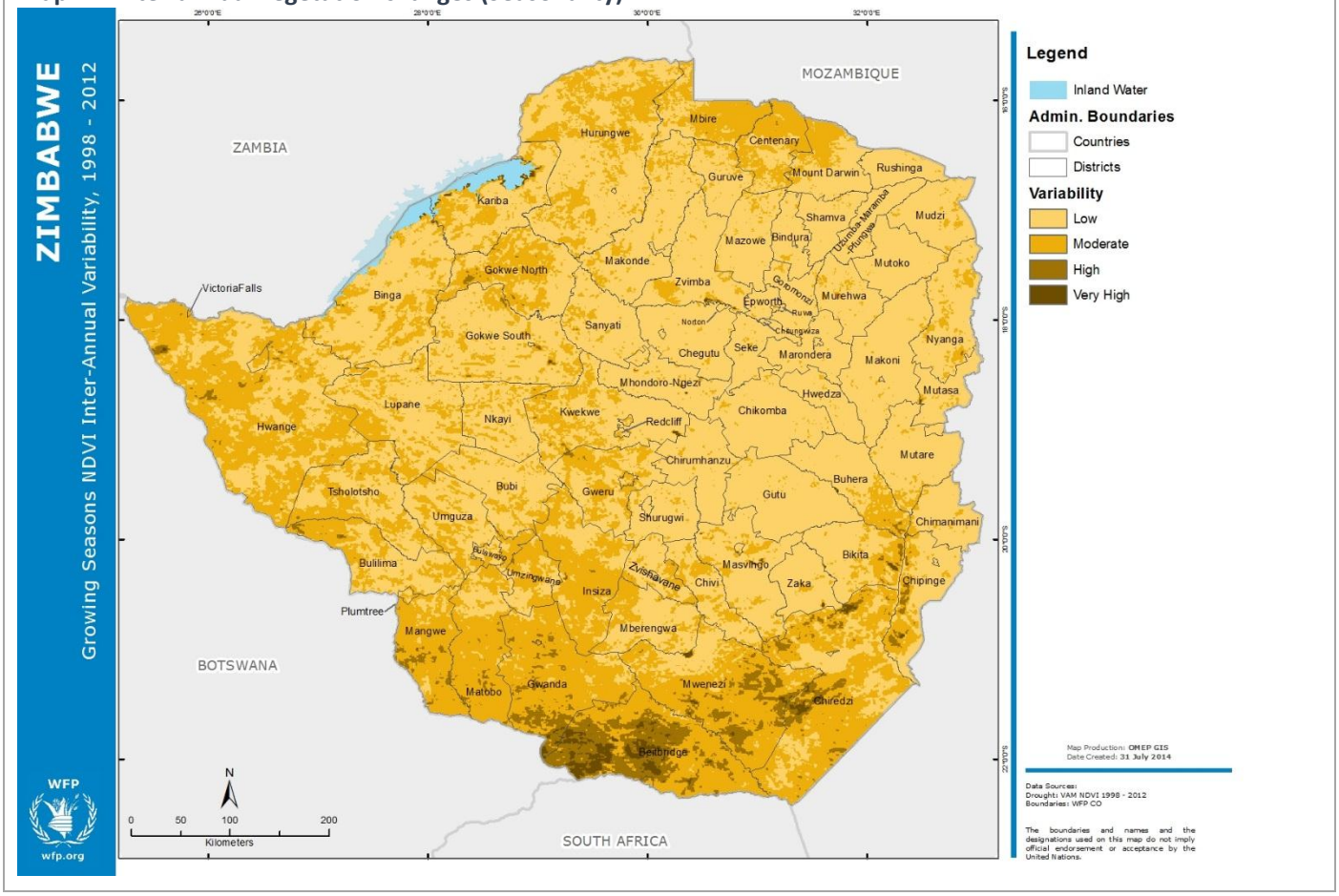


2.2.3. Seasonality

About seasonality data. Regional vegetation dynamics from year to year (inter-annual) were analyzed to help understand the temporal variation of vegetation in Zimbabwe, which in turn informs where the seasonality of growing seasons is most likely to occur, for programming and monitoring efforts. This inter-annual variation of NDVI was analyzed by using the standard deviation of 1998-2013 monthly (only the vegetation growth months) composite NDVI (***Map 11***).

Key findings on seasonality.

Map 11: Inter-annual vegetation changes (Seasonality)



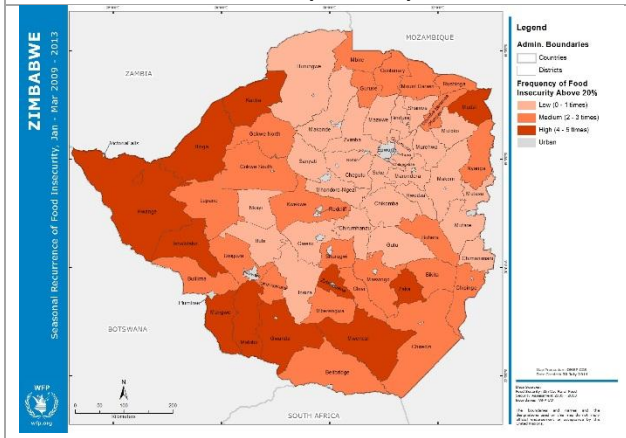
To be better understand whether food insecurity could be chronic or transient, the 5-year trend data from the ZimVAC and FEWSNET were reviewed by quarter. Using the 5 rounds of data for each quarter, the ZimVAC and FEWSNET data was reclassified as follows:

Recurrence of food insecurity of 20 percent and above			
	LOW (1)	MEDIUM (2)	HIGH (3)
ZimVAC No. of times out of 5 (i.e. each season per year) district food insecure population >20%	**0 - 1 times** out of 5 data rounds	**2 - 3 times** out of 5 data rounds	**4 - 5 times** out of 5 data rounds
FEWSNet No. of times out of 5 (i.e. each season per year) district food security classifications (of population >20%) were 'Stressed, Critical, or Emergency)	**0 - 1 times** out of 5 data rounds	**2 - 3 times** out of 5 data rounds	**4 - 5 times** out of 5 data rounds

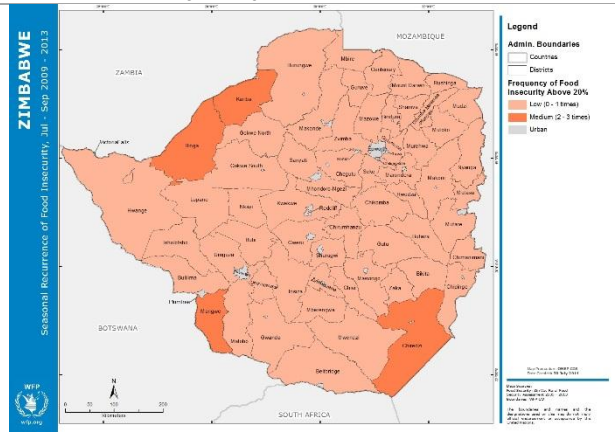
Map 12 and Map 13 show the seasonal patterns of food security from ZimVAC and FEWSNET respectively, and indicate a strong seasonality pattern. This information can be used to determine districts where food insecurity is more chronic or transient in nature, and should be used to guide the design of programmatic strategies (e.g. longer-term year round efforts, seasonal safety nets, early warning and preparedness, etc.) and the timing of different programmes activities that will vary throughout the country.

Map 12: Evidence of Seasonality - ZimVAC

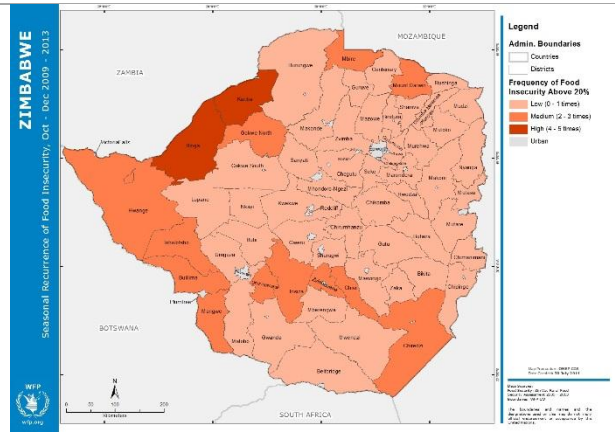
1st Quarter: Jan – March (ZimVAC)



3rd Quarter: July – Sept (ZimVAC)

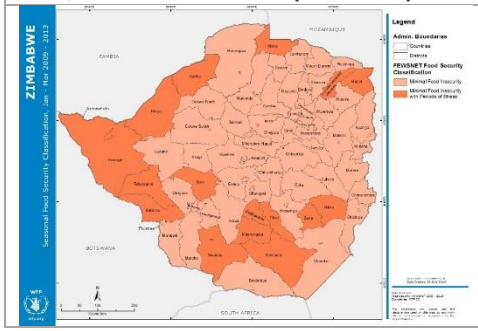


4th Quarter: Oct – Dec (ZimVAC)

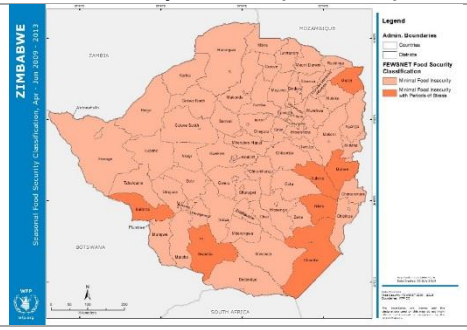


Map 13: Evidence of Seasonality - FEWSNet

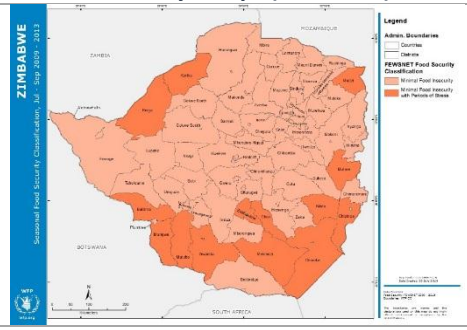
1st Quarter: Jan – March (FEWSNET)



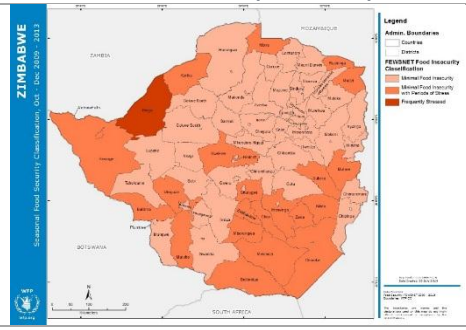
2nd Quarter: April - June (FEWSNET)



3rd Quarter: July – Sept (FEWSNET)



4th Quarter: Oct - Dec (FEWSNET)



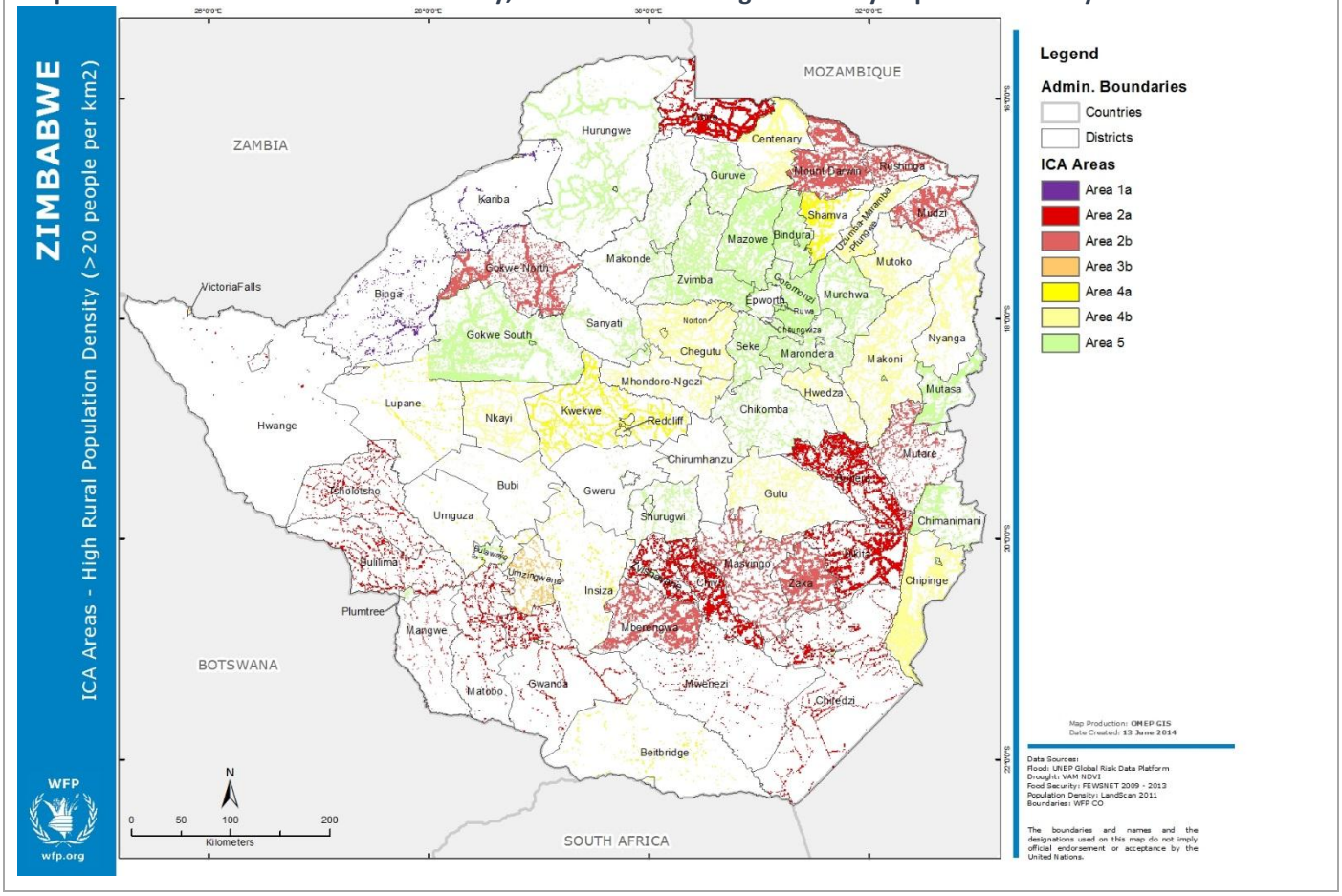
2.3. Population information

2.3.1. Population data

About population data. Population density figures were obtained from **Landscan** for **2011.**

Key findings on population. Population density data (>20 people per km2) was mapped and overlaid on the ICA categories and areas to highlight where food security, natural shock and land degradation conditions are occurring in highly populated areas.

Map 14: ICA Areas based on Food Insecurity, Shocks and Land Degradation by Population density



2.3.2. Estimating numbers of food insecure

Longer-term programme planning requires an indication of the number of people who are likely to require assistance. To calculate this, data on the total number of food insecure people identified by the ZimVAC in the last 5 years (all 15 datapoints/quarters) was tabled. The lowest numbers and the highest numbers are shown in bold:

Total food insecure (using ZIMVAC estimates, 2009-2014)				
Consumption year	**July-Sept**	**Oct-Dec**	**Jan-Mar**	**Annual average**
2009/10	676,195	1,137,030	1,571,799	**1,128,341**
2010/11	**537,514**	904,463	1,287,936	909,971
2011/12	**291,966**	650,440	1,026,004	656,137
2012/13	753,218	1,184,071	1,667,618	1,201,636
2013/14	802,603	1,524,048	2,206,924	**1,511,192**
			Overall Average	1,081,455

The overall average of the number of people estimated as food insecure over the last five years (**1,081,000**) reflects the number of people who are either (a) consistently food insecure or (b) have experienced food insecurity at some point as a result of a specific shock or event. This figure can represent an overall longer-term planning estimation.

The average of the two lowest figures recorded in July-September over the recall period (**414,000**) provides an estimate of a core group of people who were consistently food insecure irrespective of whether there were good harvests or not in the last five years, and thus for planning purposes, can reflect an estimate of those *most vulnerable* to food insecurity (or proxy for chronic food insecurity).

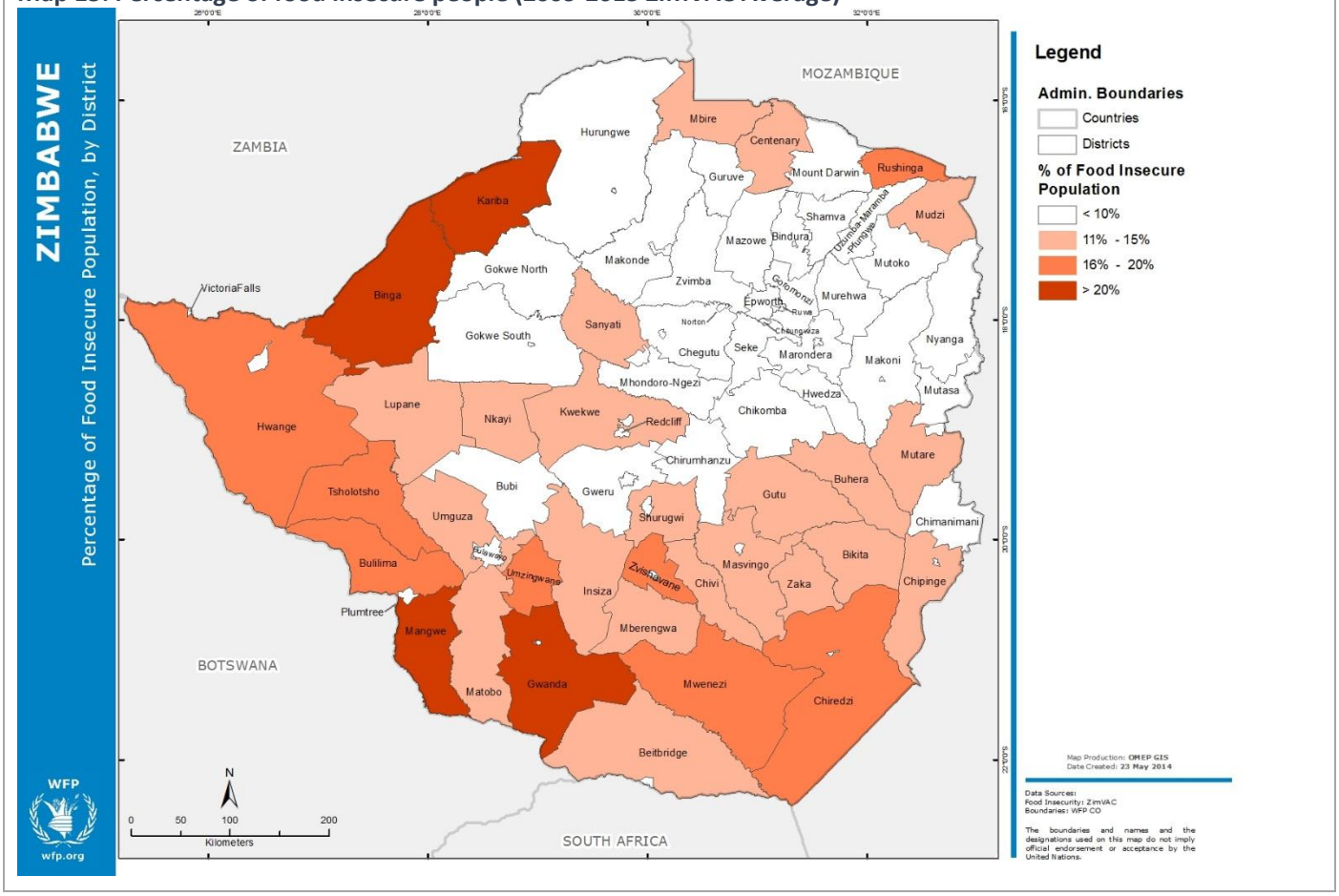
The difference between the average overall estimate of food insecure over the recall period (**1,080,000**) and of the proxy for chronically food insecure--*additional* people at risk, who could fall into crisis in the event of a shock (be it natural or man-made) (**667,000**).

In summary, planning estimates (rounded up) would be as follows:

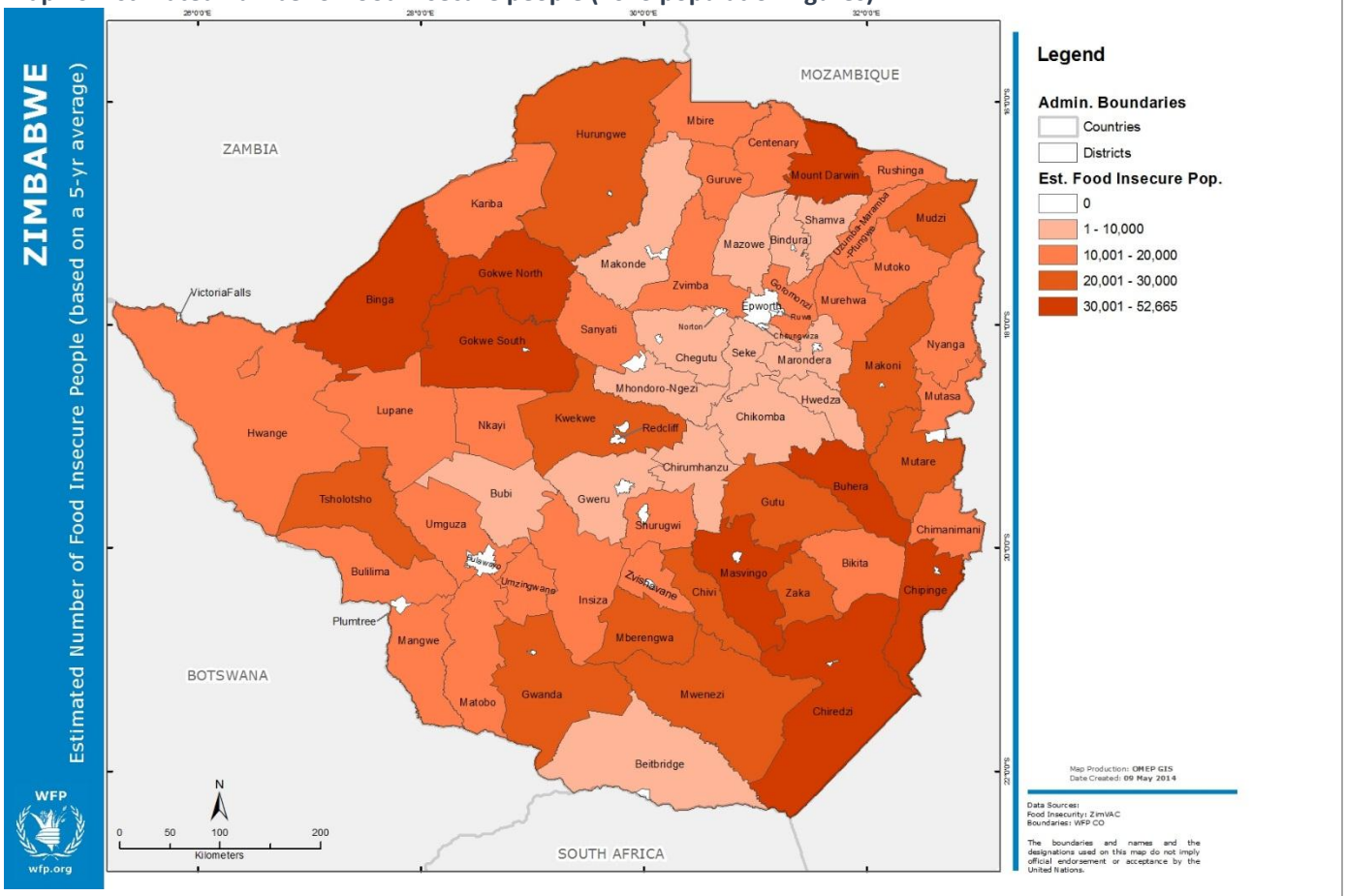
Long-term planning: average number of food insecure people in the last **five years**	**1,081,000**
Most vulnerable: *of the above*, the estimated number of consistently food insecure people	**414,000**
Preparedness planning: *in addition to the above, maximum estimated* additional number of food insecure in the event of a shock (be it natural or man-made)	**667,000**

*It is essential to note that these are just **planning estimates** and that actual numbers should be derived from emergency assessments in the event of a crisis and that plans should be adjusted throughout the programming cycle based on **assessments that reflect the current situation**.*

Map 15: Percentage of food insecure people (2009-2013 ZIMVAC Average)



Map 16: Estimated number of food insecure people (2013 population figures)



Part 3. ICA Programme Implications

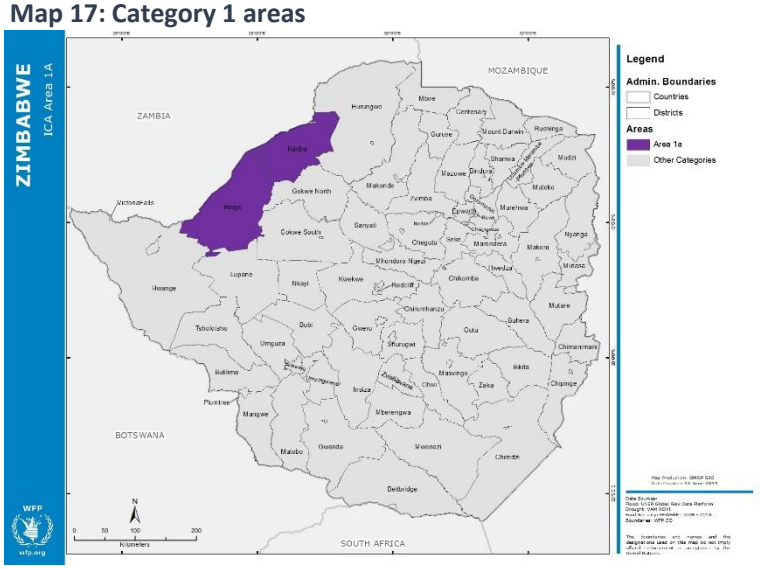
The following sections detail programmatic implications of the ICA Category and Area findings for [Title]. Through discussions with Government, partners and WFP, these findings can be used to help target specific populations and geographical areas through the broad programmes and areas of expertise that the different players can deliver and also provides an opportunity for multiple partners to identify complementary, multi-sectoral activities so as to deliver support through a package of interventions. In addition, findings can also inform discussions on the prioritization of specific areas and programmes when resources are constrained, and highlight how the balances between humanitarian and development actions in the same areas can be leveraged for complementarities and greater partnerships.

These considerations are not exhaustive and are relevant across all categories when discussing the design of programme strategies and programme planning. For example, parties can consider:

- Selecting specific districts and within those, targeting all or a proportion of the estimated food insecure population number identified (e.g. 75% or 50% etc.). This would need to be coordinated with others to ensure that there are no gaps for the remaining food insecure population;
- Deciding to provide support to districts where food insecurity levels are above a certain percentage (e.g. 50%) or to a specific number of people (e.g. where there are more than 100,000 food insecure people) etc.;
- Identifying those districts where they have the expertise or comparative advantage in programming geared towards reducing the risk of the specific shock in the area;
- Selecting districts (within and between the different districts and Categories) adjacent to where they may already be operating in order to ensure geographical continuity and maximize resources;
- Selecting areas where resource/programme gaps exist and not all of food insecure populations are being reached; and/or
- Any combination of the above.

3.1. Category 1: Building resilience to shocks

Map 17: Category 1 areas



Category 1 Areas have seen high or medium levels of natural shocks and **high recurrence of food insecurity** among **20%** or more of the population during the last **five** years**.** Frequent exposure to natural shocks reduces recovery time between crises, eroding people's coping capacities and their surrounding natural resource base which then increases risks associated with future shocks. In these areas, development gains face constant setbacks and people's abilities to move out of food insecurity are seriously challenged.

Level Natural shock	Recurrence of Food Insecurity		
	LOW	MEDIUM	HIGH
LOW	Area 5	Area 3B	Area 3A
MEDIUM	Area 4B	Area 2B	Area 1B
HIGH	Area 4A	Area 2A	Area 1A

During the last **five years** one (or more) in **five** people either: consistently failed to meet their food needs as reported by at least 14 of the 15 quarters for which ZimVAC assessment data is available; only occasionally been able to meet their food needs, for example seasonally, during harvest times, as revealed by one in every three quarters assessed by ZimVAC per year; or have been able to meet their food needs for one year (as revealed by data collected for three subsequent quarters of a ZimVAC assessement for one year) but not at all for subsequent years. Inability to meet food needs for the other years assessed could have been the result of a shock year or years, and the subsequent recovery period.

General programmatic considerations

Populations in **Category 1** areas will require longer-term programming efforts with **explicit disaster risk mitigation and prevention objectives** and vulnerability reduction measures targeting the most food-insecure, to reduce food insecurity and build resilience to frequently occurring and/or high risk to natural shocks. It will be fundamental that programmes engage both men and women in mitigation efforts at community level to reflect gender-responsive developments.

Social protection and safety nets. Social and productive safety nets that assist people in meeting basic needs, reduce food insecurity and poverty by strengthening livelihoods, and simultaneously reducing the risk and impact of shocks should be considered as a key foundation for building resilience to recurring crises that compromise development. This would include, among other things, stabilizing landscapes and reducing land degradation that aggravates the likelihood of risk.

Education. In these areas school feeding can serve as a safety net for improved education, nutrition and social protection. Providing meals at school or take home rations can benefit households to build human capital and livelihoods and protect/improve their food security.

Analysis and Early Warning. In these areas it will be important to monitor developments that deviate from projected trend lines, with a view to issuing anticipatory warnings for changes in contextual risks that alter the risk dynamics noticeably.

Nutrition. Indications of increased risk of household food insecurity related to a crisis/increased risk of exposure to a natural shock means that children and other vulnerable groups will be unlikely to access required nutrients and a nutrition component, aiming at **prevention of malnutrition**, will need to be included in the programme response. Based on the situation and the analysis of the specific context[4], the nutrition component might include either **prevention of malnutrition** (of wasting, micronutrient deficiencies or stunting) or **treatment of MAM**, or a **combination of prevention and treatment**. Prevention programmes are especially effective and critical when the nutritional status of a population is at risk of rapid deterioration, especially when there are livelihood losses, interrupted food supplies, and outbreaks of infectious disease as can occur following rapid-onset shocks.

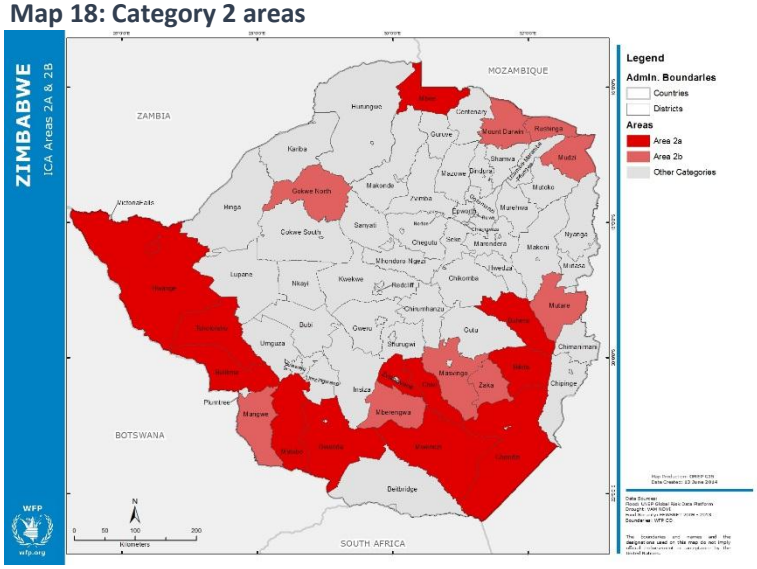
[4] For nutrition-related situation analysis, please refer to WFP 2012 Nutrition situation analysis e-learning course at http://go.wfp.org/web/nutrition/training-materials#nutritional assessment e-learnings.

Table 2: Category 1 Indicator Table

Area 1a											
Province	District	Population	Malnutrition % GAM	Malnutrition % Stunting	Estimated % of food insecurity (5 year average)	Est. Food Insecure Pop 5-yr avg (rural only)	Recurr. of food insecurity >20%	Drought risk	Flood risk	Land degradation	Livelihood Zone
Mashonaland West	Kariba	41,420	2.3%	31.0%	30.9%	12,791	High	Medium	High	Low	Cereal and Low Cotton Communal
Matabeleland North	Binga	138,074	3.2%	33.0%	24.7%	34,053	High	Medium	High	Medium	Kariba Valley and Kariangwe-Jambezi Communal
Total		**179,494**			**46,844**						

3.2. Category 2: Seasonal food insecurity and recovery

Map 18: Category 2 areas



Locations in **Category 2 Areas** have experienced **some recovery periods** during the previous **five** years –i.e., food insecurity values were not always above the threshold. Moderate levels of recurrence of food insecurity (as opposed to persistent or chronic recurrence as seen in Category 1 areas) coupled with high or medium exposure to natural shocks suggest that people may have experienced **seasonal stresses** or a **specific event or shock** which stopped them from meeting their full food requirements for a **finite** period of time.

Level Natural shock	Recurrence of Food Insecurity		
	LOW	**MEDIUM**	HIGH
LOW	Area 5	Area 3B	Area 3A
MEDIUM	Area 4B	**Area 2B**	Area 1B
HIGH	Area 4A	**Area 2A**	Area 1A

During the last **five years** one or more in **five** people may have either: experienced a **seasonal lean** period - i.e. the 5 times (out of 15 ZimVAC quarters/datapoints) they did not meet their food needs occurred once a year each year (e.g. a lean season before a harvest) or experienced a **shock year(s)** – i.e. the 5 to 9 times (out of 15 ZimVAC quarters) could be related to shocks, followed by a recovery period

General programmatic considerations

Seasonal hunger compromises and slows down vulnerable people's abilities to invest and move out of food insecurity, as every year they draw down on assets and savings accumulated during better times to cope with difficult times –i.e., lean seasons lead to depletion of harvest-period savings, etc. Where populations **experience a shock**, the most vulnerable need time to recover and restore livelihood, natural and environmental assets lost to negative coping strategies adopted to deal with the crisis. High exposure to shocks aggravates and heightens vulnerability for such populations.

The nature of the transient food insecurity (seasonal and recurrent or shock-related) will inform programmatic response. In all cases, vulnerable populations in these areas will benefit from **longer-term efforts** to strengthen livelihoods and build resilience to the risks of recurrent shocks, with **explicit disaster risk mitigation and prevention objectives**, vulnerability reduction measures targeting the most food-insecure and **remedial measures** in response to early warnings targeting those who, without assistance could slide towards greater food insecurity.

Social protection and safety nets. Where food security is seasonal in nature, productive **seasonal** safety nets geared to strengthening livelihoods and stabilizing landscapes and/or reversing degradation to reduce the risk of shocks would ensure food and other basic needs are met without depleting assets in order to cope. Combined with early warning systems and preparedness, these would lay the foundations for building resilience to recurrent crises, and assist in safeguarding people's investments and any development gains made. In these areas, programmes should support existing and/or informal social safety nets as well as engage community men and women in mitigation efforts to reflect gender-responsive developments.

Education. In these areas school feeding can serve as a safety net for improved education, nutrition and social protection. Providing meals at school or take home rations can benefit households to build human capital and livelihoods and protect/improve their food security.

Analysis and Early Warning. In these areas it will be important to provide a seasonal hazards calendar highlighting upcoming potential deviations from seasonal trends and/or new risks.

Nutrition. Indications of increased risk of household food insecurity related to a crisis/increased risk of exposure to a natural shock means that children and other vulnerable groups will be unlikely to access required nutrients and a nutrition component, aiming at **prevention of malnutrition**, will need to be included in the programme response. Based on the situation and the analysis of the specific context, the nutrition component might include either **prevention of malnutrition** (of wasting, micronutrient deficiencies or stunting) or **treatment of MAM**, or a **combination of prevention and treatment**. Prevention programmes are especially effective and critical when the nutritional status of a population is at risk of rapid deterioration, especially when there are livelihood losses, interrupted food supplies, and outbreaks of infectious disease as can occur following rapid-onset shocks.

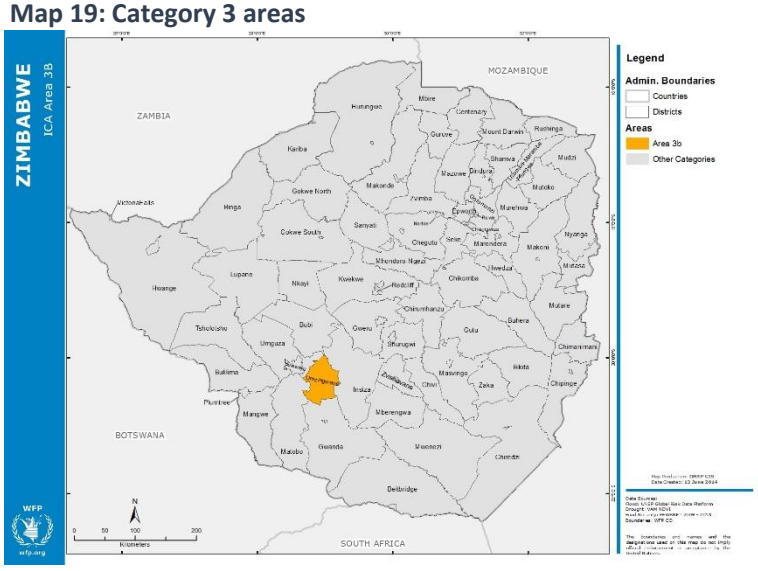
Table 3: Category 2 Indicator Table

Area 2a											
Province	**District**	**Population (2013)**	**Mal-nutri-tion % GAM**	**Mal-nutri-tion % Stunting**	**Est. % of food insecurity (5 year average)**	**Est. Food Insecure Pop 5-yr avg (rural only)**	**Recurr. of food insecurity >20%**	**Drought risk**	**Flood risk**	**Land degrada-tion**	**Livelihood Zone**
Manicaland	Buhera	246,462	1.9%	35.0%	14.6%	35,974	Medium	High	High	Low	Masvingo Manicaland Middleveld Smallholder
Mashonaland Central	Mbire	81,908	2.3%	34.0%	17.5%	14,372	Medium	Medium	High	Low	Northern Zambezi Valley Communal
Masvingo	Bikita	161,703	1.1%	32.0%	12.2%	19,742	Medium	Medium	High	High	Urban
Masvingo	Chiredzi	276,842	0.9%	27.0%	19.0%	52,665	Medium	High	High	High	Save River Valley and Ndowoyo Communal
Masvingo	Chivi	166,277	1.6%	32.0%	15.7%	26,097	Medium	Medium	High	Low	Mwenezi, Chivi and South Midland Communal
Masvingo	Mwenezi	166,263	1.3%	32.0%	16.8%	27,916	Medium	High	Medium	High	Mwenezi, Chivi and South Midland Communal
Matabeleland North	Hwange	100,251	1.9%	30.0%	12.3%	12,337	Medium	Medium	High	High	Urban
Matabeleland North	Hwange Urban	100,251	1.9%	30.0%	12.3%	12,337	Medium	Medium	High	High	Kariba Valley and Kariangwe-Jambezi Communal
Matabeleland North	Tsholotsho	113,895	5.2%	37.0%	18.0%	20,533	Medium	Medium	High	Medium	Western Kalahari Sandveld Communal
Matabeleland South	Bulilima	90,757	3.0%	36.0%	18.1%	16,428	Medium	Medium	High	Low	Western Kalahari Sandveld Communal
Matabeleland South	Gwanda	116,357	1.7%	25.0%	22.1%	25,764	Medium	High	Medium	High	Southern Cattle and Cereal Farming
Matabeleland South	Matobo	93,991	2.3%	34.0%	15.8%	14,823	Medium	High	Medium	Medium	Southern Cattle and Cereal Farming
Midlands	Zvishavane	70,047	1.6%	29.0%	20.2%	14,167	Medium	Medium	High	Medium	Masvingo Manicaland Middleveld Smallholder
	TOTAL:	**1,785,004**			**:**	**293,155**					

Area 2b											
Province	**District**	**Population (2013)**	**Mal-nutri-tion % GAM**	**Mal-nutri-tion % Stunting**	**Est. % of food insecurity (5 year average)**	**Est. Food Insecure Pop 5-yr avg (rural only)**	**Recurr. of food insecurity >20%**	**Drought risk**	**Flood risk**	**Land degrada-tion**	**Livelihood Zone**
Manicaland	Mutare	260,567	1.5%	47.0%	11.0%	28,736	Medium	Medium	Medium	Medium	Masvingo Manicaland Middleveld Smallholder
Mashonaland Central	Mount Darwin	219,757	1.7%	39.0%	17.6%	38,683	Medium	Medium	Medium	Low	Highveld Prime Communal
Mashonaland Central	Rushinga	70,548	1.9%	30.0%	17.1%	12,063	Medium	Medium	Medium	Medium	Greater Mudzi Communal
Mashonaland East	Mudzi	132,617	3.1%	34.0%	15.7%	20,872	Medium	Medium	Medium	Medium	Greater Mudzi Communal
Masvingo	Masvingo	211,732	1.1%	31.0%	14.8%	31,358	Medium	Medium	Medium	Medium	Masvingo Manicaland Middleveld Smallholder
Masvingo	Zaka	181,106	1.9%	31.0%	15.6%	28,246	Medium	Medium	Medium	Low	Masvingo Manicaland Middleveld Smallholder
Matabeleland South	Mangwe	67,005	2.6%	37.0%	25.9%	17,355	Medium	High	Low	Medium	Beitbridge South Western Lowveld Communal
Midlands	Gokwe North	244,976	2.8%	33.0%	12.3%	30,164	Medium	Low	High	Medium	Cereal and High Cotton Communal
Midlands	Mberengwa	186,164	2.2%	33.0%	15.3%	28,407	Medium	Medium	Medium	Medium	Matabeleland Middleveld Communal
	TOTAL:	**1,574,472**				**235,884**					

3.3. Category 3: Longer-term programmes

Map 19: Category 3 areas



Locations in **Category 3** have seen **high or moderate levels of recurrence of food insecurity** among **[indicator threshold]** or more of the population over the past **five years** but a relatively **low** level of exposure to natural shocks. Populations living in these areas recurrently or consistently do not meet their food needs which suggests that food insecurity is **pervasive**, and while it could be seasonal it is not likely to be highly affected by natural shocks. It is likely that food insecurity in these areas is more affected by chronic poverty and deteriorated livelihoods.

Level Natural shock	Recurrence of Food Insecurity		
	LOW	MEDIUM	HIGH
LOW	Area 5	**Area 3B**	**Area 3A**
MEDIUM	Area 4B	Area 2B	Area 1B
HIGH	Area 4A	Area 2A	Area 1A

During the last **five years** one (or more) in five people either: experienced a seasonal lean period - i.e. the 5 times (out of 15 ZimVAC quarters) they did not meet their food needs occurred once a year each year (e.g. a lean season before a harvest) or may have experienced a shock year(s) – i.e. the 5 to 9 times (out of 15 ZimVAC quarters) could be related to shocks, followed by a recovery period

General programmatic considerations

Given the prevalence of food insecurity, populations living in this area would benefit from **longer-term food programmes** to reduce food insecurity and promote development through predictable social protection and productive safety nets geared towards strengthening and improving livelihoods, and safeguarding development efforts. Where relevant, these should be coupled with actions to strengthen early warning systems and preparedness as well as stabilize natural environments and reverse land degradation, which if left unaddressed could aggravate and increase the risk of exposure to natural shocks which could eventually lead to these areas falling into Categories 1 and 2.

Education. In these areas school feeding can serve as a safety net for improved education, nutrition and social protection. Providing meals at school or take home rations can benefit households to build human capital and livelihoods and protect/improve their food security. Where possible, HGSF can be introduced to make a linkage with local smallholder farmers.

Analysis and Early Warning. In these areas it will be important to monitor ongoing risk drivers with seasonal developments and issue anticipatory warning for deviations in current risk trend lines.

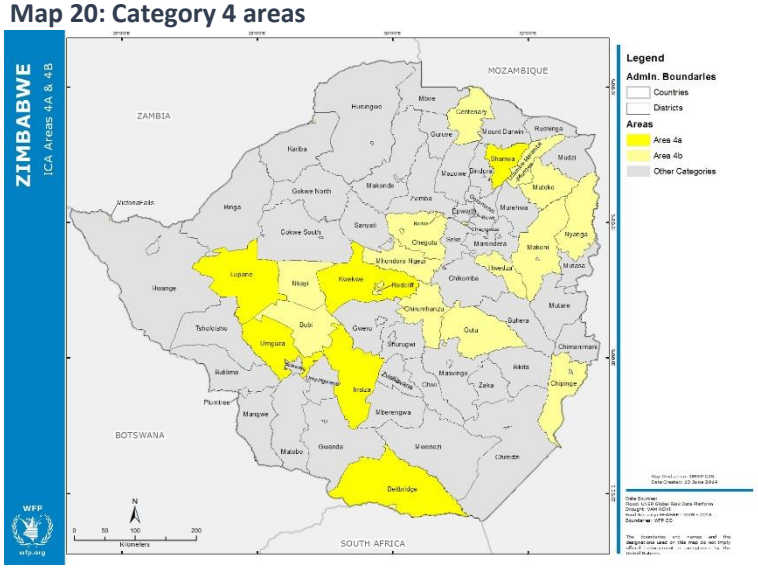
Nutrition. Indications of increased risk of household food insecurity related to a crisis/increased risk of exposure to a natural shock means that children and other vulnerable groups will be unlikely to access required nutrients and a nutrition component, aiming at **prevention of malnutrition**, will need to be included in the programme response. Based on the situation and the analysis of the specific context, the nutrition component might include either **prevention of malnutrition** (of wasting, micronutrient deficiencies or stunting) or **treatment of MAM**, or a **combination of prevention and treatment**. Prevention programmes are especially effective and critical when the nutritional status of a population is at risk of rapid deterioration, especially when there are livelihood losses, interrupted food supplies, and outbreaks of infectious disease. In situations where children's dietary intakes are inadequate prior to a crisis/shock (not uncommon) WFP can advocate to continue prevention programmes in parallel with agriculture and poverty reduction programmes aimed at improving local diets.

Table 4: Category 3 Indicator Table

Area 3b											
Province	**District**	**Population (2013)**	**Malnutrition % GAM**	**Malnutrition % Stunting**	**Estimated % of food insecurity (5 year average)**	**Est. Food Insecure Pop. 5-yr avg (rural only)**	**Recurrence of food insecurity >20%**	**Drought risk**	**Flood risk**	**Land degradation**	**Livelihood Zone**
Matabeleland South	Umzingwane	62,510	1.5%	34.0%	19.7%	12,339	Medium	Medium	Low	Low	Matabeleland Middleveld Communal
	TOTAL:	**62,510**			**TOTAL:**	**12,339**					

3.4. Category 4: Reducing Risks to Shocks

Map 20: Category 4 areas



Category 4 Areas have seen **low recurrence of food insecurity** among **20%** or more of the population over the last **five years** and **high or medium** exposure to natural shocks. Although the recurrence of food insecurity is low or minimal, pockets of food insecurity are still likely to exist. In addition, given the high levels of exposure to natural shocks, if mitigating measures are not put in place to reduce land degradation as an aggravating factor for future risk (where relevant), food secure populations could be pushed into food insecurity if and when shock events occur.

Level Natural shock	Recurrence of Food Insecurity		
	LOW	MEDIUM	HIGH
LOW	Area 5	Area 3B	Area 3A
MEDIUM	**Area 4B**	Area 2B	Area 1B
HIGH	**Area 4A**	Area 2A	Area 1A

Food security findings in these areas indicate that in the last **five years**, one (or more) in **five people** either: experienced a seasonal lean period - i.e. the 3 times (out of 15 ZimVAC quarters) they did not meet their food needs occurred once a year each year (e.g. a lean season before a harvest) or may have experienced a shock year – i.e. the 3 times (out of 15 ZimVAC quarters) could be related to a shock

General programmatic considerations

Populations living in these areas would benefit from programming with explicit disaster risk mitigation and prevention objectives such as stabilizing landscapes and reversing degradation to reduce risk and build resilience to natural shocks and other climate-related stressors for the community at large. Programmes should also aim to **strengthen early warning and preparedness**, plan for appropriate remedial measures and work to strengthen existing and/or informal social safety nets. In all cases, programmes should also ensure both men and women are engaged in mitigation efforts at community level to reflect gender-responsive developments.

Analysis and Early Warning. In these areas it will be important to provide in-depth analytical briefs on contextual risks indicating geographical hotspots, issue updated Risk Background Briefs for the country with a set of triggers and thresholds that should be monitored and monitor seasonal risk trends and adjust forecast trends if necessary.

Nutrition. Indications of increased risk of household food insecurity related to a crisis/increased risk of exposure to a natural shock means that children and other vulnerable groups will be unlikely to access required nutrients and a nutrition component, aiming at **prevention of malnutrition**, will need to be included in the programme response. Based on the situation and the analysis of the specific context, the nutrition component might include either **prevention of malnutrition** (of wasting, micronutrient deficiencies or stunting) or **treatment of MAM**, or a **combination of prevention and treatment**. Prevention programmes are especially effective and critical when the nutritional status of a population is at risk of rapid deterioration, especially when there are livelihood losses, interrupted food supplies, and outbreaks of infectious disease. In situations where children's dietary intakes are inadequate prior to a crisis/shock (not uncommon) WFP can advocate to continue prevention programmes in parallel with agriculture and poverty reduction programmes aimed at improving local diets.

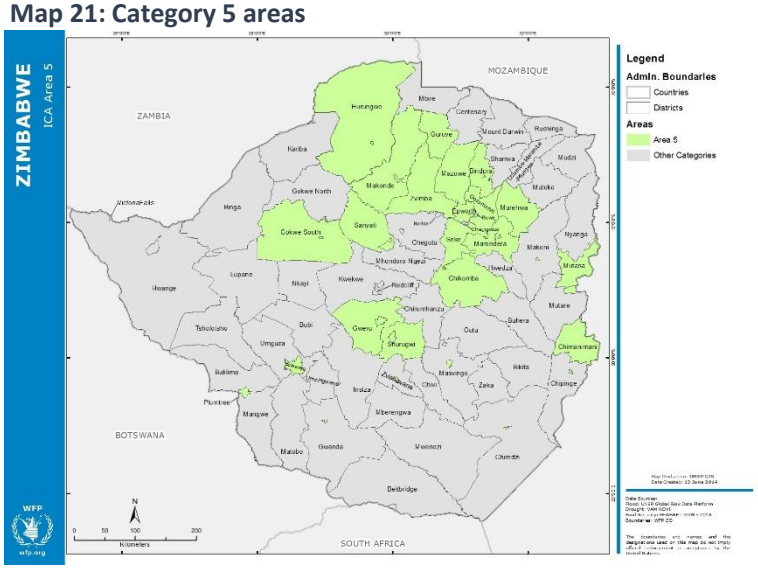
Table 5: Category 4 Indicator Table

Area 4a											
Province	District	Population (2013)	Malnutrition % GAM	Malnutrition % Stunting	Est. % of food insecurity (5 year average)	Est. Food Insecure Pop. 5-yr avg (rural only)	Recurr. of food insecurity >20%	Drought risk	Flood risk	Land degradation	Livelihood Zone
Mashonaland Central	Shamva	119,530	2.4%	38.0%	5.2%	6,171	Low	Medium	High	High	Highveld Prime Communal
Matabeleland North	Lupane	98,864	1.3%	33.0%	13.8%	13,601	Low	Medium	High	Medium	Livestock and Cereal Farming Communal in Forests
Matabeleland North	Umguza	87,518	2.9%	31.0%	13.6%	11,875	Low	Medium	High	High	Southern Cattle and Cereal Farming
Matabeleland South	Beitbridge	80,335	2.0%	22.0%	11.3%	9,096	Low	High	Medium	Medium	Beitbridge South Western Lowveld Communal
Matabeleland South	Insiza	99,793	3.4%	30.0%	15.3%	15,230	Low	High	Medium	Low	Southern Cattle and Cereal Farming
Midlands	Kwekwe	175,835	1.1%	40.0%	13.7%	24,026	Low	Medium	High	Medium	Southern Cattle and Cereal Farming
	TOTAL:	**661,875**				**79,999**					

Area 4b											
Province	District	Population (2013)	Malnutrition % GAM	Malnutrition % Stunting	Estimated % of food insecurity (5 year average)	Est. Food Insecure Pop. 5-yr avg (rural only)	Recurr. of food insecurity >20%	Drought risk	Flood risk	Land degradation	Livelihood Zone
Harare	Chitungwiza	354,472	2.8%	30.0%	-	-	Low	Low	High	Low	Urban
Manicaland	Chipinge	300,792	1.7%	38.0%	13.7%	41,143	Low	High	Low	Medium	Save River Valley and Ndowoyo Communal
Manicaland	Makoni	273,289	2.1%	39.0%	10.5%	28,762	Low	Medium	Medium	Low	Highveld Prime Communal
Manicaland	Nyanga	125,688	2.4%	46.0%	8.5%	10,742	Low	Medium	Medium	Low	Greater Mudzi Communal
Mashonaland Central	Centenary	120,728	1.8%	37.0%	12.4%	14,936	Low	Medium	Medium	Low	Northern Zambezi Valley Communal
Mashonaland East	Hwedza	70,473	2.1%	35.0%	5.2%	3,641	Low	Medium	Medium	Low	Highveld Prime Cereal and Cash Crop Resettlement
Mashonaland East	Mutoko	145,676	2.9%	35.0%	10.4%	15,080	Low	Medium	Medium	Low	Central and Northern Semi Intensive Farming
Mashonaland East	Uzumba Maramba Pfungwe	112,150	3.2%	27.0%	13.9%	15,621	Low	Low	High	Medium	Greater Mudzi Communal
Mashonaland West	Chegutu	149,025	1.7%	29.0%	4.9%	7,241	Low	Low	High	High	Highveld Prime Cereal and Cash Crop Resettlement
Mashonaland West	Chegutu Urban	49,832	1.7%	29.0%	-	-	Low	Low	High	Medium	Urban
Mashonaland West	Kariba Urban	26,742	2.3%	31.0%	-	-	Low	Low	High	Low	Urban
Mashonaland West	Mhondoro-Ngezi	104,061	2.3%	32.0%	7.9%	8,244	Low	Low	High	High	Highveld Prime Communal
Mashonaland West	Norton	58,421	1.7%	29.0%	-	-	Low	Low	High	Low	Urban
Masvingo	Gutu	203,533	0.9%	40.0%	11.8%	23,958	Low	Medium	Medium	Low	Masvingo Manicaland Middleveld Smallholder
Matabeleland North	Bubi	62,188	1.5%	34.0%	10.3%	6,402	Low	Medium	Medium	High	Eastern Kalahari Sandveld Communal
Matabeleland North	Nkayi	109,371	2.2%	40.0%	12.2%	13,375	Low	Medium	Medium	Low	Eastern Kalahari Sandveld Communal
Matabeleland North	Victoria Falls	33,710	1.9%	30.0%	-	-	Low	Low	High	Low	Urban
Matabeleland South	Beitbridge Urban	42,218	2.0%	22.0%	-	-	Low	Low	High	Low	Urban
Midlands	Chirumhanzu	81,087	1.1%	31.0%	9.9%	8,023	Low	Medium	Medium	Low	Southern Cattle and Cereal Farming
Midlands	Kwekwe Urban	100,455	1.1%	40.0%	-	-	Low	Low	High	Low	Urban
Midlands	Redcliff	35,924	1.1%	40.0%	-	-	Low	Low	High	Medium	Urban
	TOTAL:	**2,559,835**				**197,168**					

3.5. Category 5: Enhanced Preparedness

Map 21: Category 5 areas



Locations in **Category 5** have seen a **low recurrence of food insecurity** among **20%** or more of the population over the **five years** and a **low risk** of exposure to natural shocks. This does not mean however, that there are no pockets of food insecurity or that the risk of exposure to natural shocks is completely absent.

Level Natural shock	Recurrence of Food Insecurity		
	LOW	MEDIUM	HIGH
LOW	**Area 5**	Area 3B	Area 3A
MEDIUM	Area 4B	Area 2B	Area 1B
HIGH	Area 4A	Area 2A	Area 1A

General programmatic considerations

Overall poverty reduction and development programmes would be beneficial in these areas, with a strong focus on halting and reversing land degradation which could otherwise compromise future food security and livelihoods. Early warning and preparedness efforts need to be maintained, in order to safeguard and protect the gains made by people and programmes in the event of shocks and crises. In all cases, programmes should also ensure both men and women are engaged in mitigation efforts at community level to reflect gender-responsive developments.

Analysis and Early Warning. In these areas it will be important to issue a Risk Background Brief providing anticipatory analysis of contextual risks that could affect the country in the coming six months.

Nutrition. Indications of increased risk of household food insecurity related to a crisis/increased risk of exposure to a natural shock means that children and other vulnerable groups will be unlikely to access required nutrients and a nutrition component, aiming at **prevention of malnutrition**, will need to be included in the programme response. Based on the situation and the analysis of the specific context, the nutrition component might include either **prevention of malnutrition** (of wasting, micronutrient deficiencies or stunting) or **treatment of MAM**, or a **combination of prevention and treatment**. Prevention programmes are especially effective and critical when the nutritional status of a population is at risk of rapid deterioration, especially when there are livelihood losses, interrupted food supplies, and outbreaks of infectious disease. In situations where children's dietary intakes are inadequate prior to a crisis/shock (not uncommon) WFP can advocate to continue prevention programmes in parallel with agriculture and poverty reduction programmes aimed at improving local diets.

Table 6: Category 5 Indicator Table

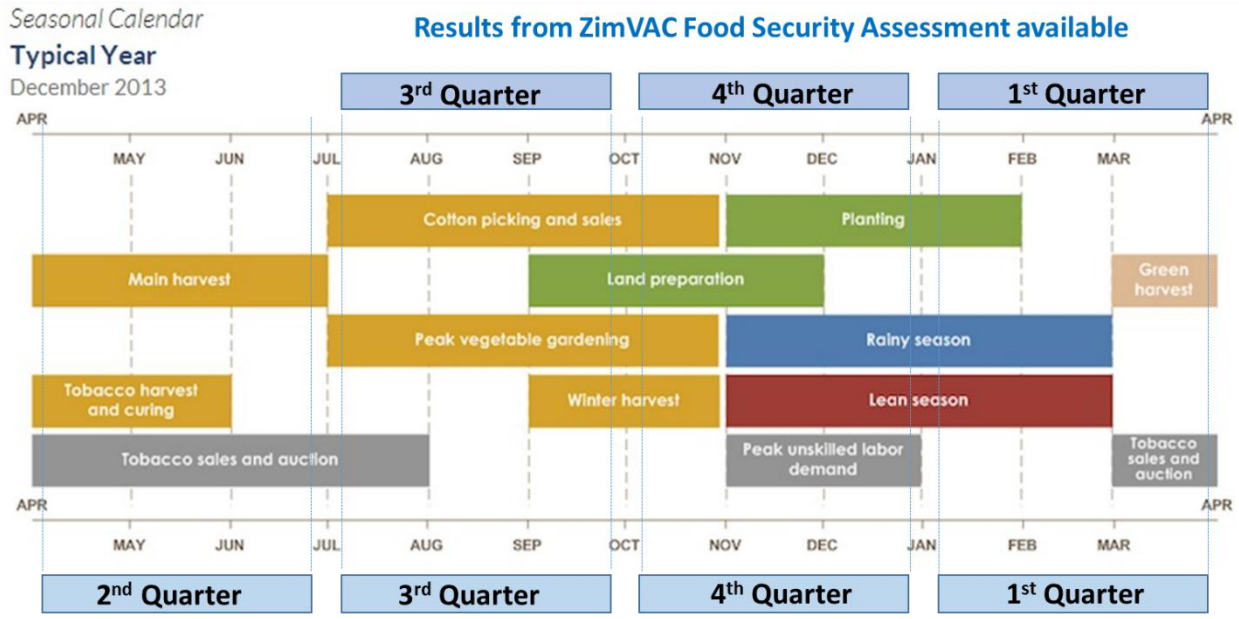
Province	District	Population (2013)	Malnutrition % GAM	Malnutrition % Stunting	Estimated % of food insecurity (5-yr avg.)	Est. Food Insecure Pop. 5-yr avg (rural only)	Recurr. of food insecurity >20%	Drought risk	Flood risk	Land degradation	Livelihood Zone
Bulawayo	Bulawayo	655,675	1.5%	24.0%	-	-	Low	Low	Low	Low	Urban
Harare	Epworth	161,840	3.4%	38.0%	-	-	Low	Low	Low	Low	Urban
Harare	Harare Urban	1,581,887	1.9%	29.0%	-	-	Low	Low	-	-	Urban
Manicaland	Chimanimani	133,810	2.2%	35.0%	9.9%	13,233	Low	Medium	Low	Medium	Eastern Highlands Commercial Farming
Manicaland	Chipinge Urban	25,675	1.7%	38.0%	-	-	Low	Low	-	-	Urban
Manicaland	Mutare Urban	188,243	1.5%	47.0%	-	-	Low	Low	Low	Medium	Urban
Manicaland	Mutasa	169,756	2.3%	40.0%	7.2%	12,198	Low	Medium	Low	Medium	Eastern Highlands Prime Communal
Mashonaland Central	Bindura	124,160	2.7%	42.0%	4.7%	5,830	Low	Low	Medium	Medium	Highveld Prime Cereal and Cash Crop Resettlement
Mashonaland Central	Bindura Urban	44,033	2.7%	42.0%	-	-	Low	Low	Low	Medium	Urban
Mashonaland Central	Guruve	123,467	2.6%	30.0%	9.1%	11,247	Low	Low	Medium	Medium	Highveld Prime Cereal and Cash Crop Resettlement
Mashonaland Central	Mazowe	232,885	1.6%	41.0%	3.4%	7,845	Low	Low	Low	Medium	Highveld Prime Cereal and Cash Crop Resettlement
Mashonaland East	Chikomba	121,162	2.6%	32.0%	5.3%	6,453	Low	Medium	Low	Low	Southern Cattle and Cereal Farming
Mashonaland East	Goromonzi	223,879	3.5%	36.0%	5.9%	13,225	Low	Low	Low	Low	Highveld Prime Cereal and Cash Crop Resettlement
Mashonaland East	Marondera	116,427	2.4%	38.0%	4.9%	5,696	Low	Medium	Low	Low	Highveld Prime Cereal and Cash Crop Resettlement
Mashonaland East	Marondera Urban	62,120	2.4%	38.0%	-	-	Low	Low	Low	Low	Urban
Mashonaland East	Murehwa	195,085	1.8%	31.0%	6.4%	12,529	Low	Low	Medium	Low	Highveld Prime Communal
Mashonaland East	Rusape Urban	30,718	2.1%	39.0%	-	-	Low	Low	-	-	Urban
Mashonaland East	Ruwa	56,333	3.5%	36.0%	-	-	Low	Low	Low	Low	Urban
Mashonaland East	Seke	101,137	3.4%	38.0%	5.4%	5,471	Low	Low	Medium	Low	Highveld Prime Cereal and Cash Crop Resettlement
Mashonaland West	Chinhoyi Urban	79,368	1.9%	34.0%	-	-	Low	Low	-	-	Urban
Mashonaland West	Hurungwe	324,675	0.8%	36.0%	7.4%	23,971	Low	Low	Medium	High	Urban
Mashonaland West	Kadoma Urban	90,109	2.3%	32.0%	-	-	Low	Low	Low	Medium	Urban
Mashonaland West	Karoi Urban	18,757	0.8%	36.0%	-	-	Low	Low	-	-	Urban
Mashonaland West	Makonde	148,819	1.9%	34.0%	4.1%	6,103	Low	Low	Medium	High	Highveld Prime Cereal and Cash Crop Resettlement
Mashonaland West	Sanyati	113,220	1.7%	29.0%	11.1%	12,569	Low	Low	Medium	High	Lusulu, Lupane, Southern Gokwe Mixed Agriculture
Mashonaland West	Zvimba	245,489	1.6%	35.0%	4.9%	11,946	Low	Low	Medium	Medium	Highveld Prime Cereal and Cash Crop Resettlement
Masvingo	Chiredzi Urban	-	0.9%	27.0%	-	-	Low	Low	Low	Low	Urban
Masvingo	Masvingo Urban	88,554	1.1%	31.0%	-	-	Low	Low	Low	Low	Urban
Matabeleland South	Gwanda Urban	20,420	1.7%	25.0%			Low	Low	Low	Medium	Urban
Matabeleland South	Plumtree	11,660	3.0%	36.0%	-	-	Low	Low	Low	Medium	Urban
Midlands	Gokwe South	307,250	0.7%	36.0%	10.0%	30,714	Low	Low	Medium	Medium	Lusulu, Lupane, Southern Gokwe Mixed Agriculture
Midlands	Gokwe South Urban	24,136	0.7%	36.0%	-	-	Low	Low	-	-	Urban
Midlands	Gweru	93,128	2.4%	33.0%	10.1%	9,434	Low	Medium	Low	Low	Southern Cattle and Cereal Farming
Midlands	Gweru Urban	158,233	2.4%	33.0%	-	-	Low	Low	Low	Low	Urban
Midlands	Shurugwi	77,460	1.2%	34.0%	14.8%	11,469	Low	Medium	Low	Low	Southern Cattle and Cereal Farming
Midlands	Shurugwi Urban	22,456	1.2%	34.0%	-	-	Low	Low	-	-	Urban
Midlands	Zvishavane Urban	45,325	1.6%	29.0%	-	-	Low	Low	Low	Medium	Urban
	TOTAL:	**6,196,931**				**106,206**					

Part 4. Analytical methods

4.1. Food security

A five year trend analysis of food security was conducted using information from the Vulnerability Assessment Committee (ZimVAC, 2009-2013) and FEWSNET food security outlooks (2009-2013).

Results from ZimVAC annual food security assessments were available for three quarters a year from the last 5 years (i.e. 15 data sets) expressing the percentage of people classified as food insecure for each of these points in time. FEWSNET food security outlooks were available for the last 5 years (produced quarterly each year – i.e. 20 data sets) expressing a classification of the food security situation at geographical levels. The timing relationship of these two information sources and the broad harvest/lean season periods are shown in the Figure below:



Timing of FEWSNET Quarterly Outlooks

Broadly, it would be expected that the findings from these two data sets would reflect the following:

- **April – June:** Harvest period, lowest levels of food insecure populations/better food security situation expected
- **July – September:** Moving away from harvests, could be a rise in levels of food insecure populations/food insecurity can begin to deteriorate – particularly if in bad year and winter harvests reduced/fail
- **October – December:** Start of the lean season, expected rise in levels of food insecure populations/food insecurity begins to deteriorate – if in bad year, numbers greatly increase
- **January – March:** Lean season and pre-harvest period, expected highest number of people classified as food insecure/food insecurity situation most difficult

Both data sets were used in order to triangulate the findings, expecting that a rise or higher number of food insecure populations from ZimVAC would correlate to a worsening of the food security classifications from FEWSNET – i.e. the higher the number of food insecure people, the worse the food security situation is.

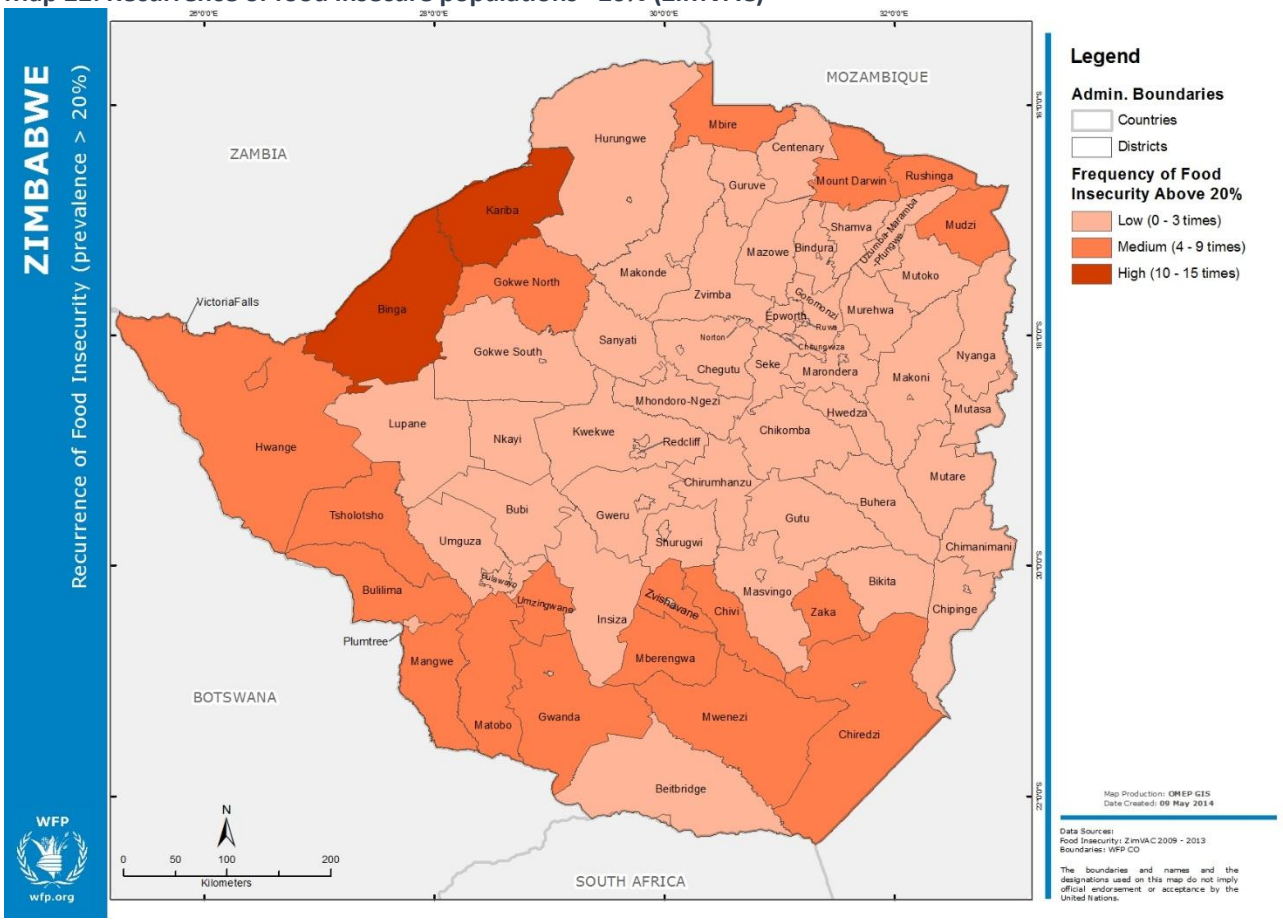
4.1.1. Conducting a trend analysis using ZimVAC rural food security assessment data:

Using the data sets from 15 quarters (3 per year for 5 years) of ZimVAC data, the number of times that the percentage of food insecure populations exceeded 20% of the total district population was identified for each district. The decision to select 20% and above was taken to represent when 1 or more out of 5 households/people from the total district population were assessed as food insecure.

Three classes were then constructed to better interpret whether the **recurrence** of food insecure populations above 20% could either be seasonal or as a result of a shock/crisis. To do this, the following was assumed, and districts were classified accordingly and mapped (***Map 22***):

No. of times out of 15 (i.e. 3 per year) district food insecure population >20%			
	0 - 3 times out of 15 quarters (or 1 year out of 5)	**4 - 9 times out of 15 quarters (or 2-3 years out of 5)**	**10 - 15 times out of 15 quarters (or 4-5 years out of 5)**
ICA Reclassification	LOW (1)	MEDIUM (2)	HIGH (3)
Assumptions	*Either an irregular or constant seasonal pattern, or a bad year*	*A constant seasonal pattern (5 to 6 times), or 2 to 3 bad years in the last 5 years*	*Consistent high levels of food insecure populations – not related to seasonal issues*

Map 22: Recurrence of food insecure populations >20% (ZIMVAC)



4.1.2. Conducting a trend analysis using FEWSNET food security outlook data:

The FEWSNET food security classifications[5] of 'Stressed, Critical, Emergency, and Famine' describe the depth of food insecurity when experienced by 1 in 5 households or more, meaning that when any of these classifications occur then food insecurity is already being experienced by 20% or more of the population.

Using the 20 FEWSNET food security outlooks (4 per year for 5 years), the number of times that food security classifications were given as 'Stressed, Critical, and/or Emergency' were added for each district. The decision to combine these three classifications into one is based on two factors:

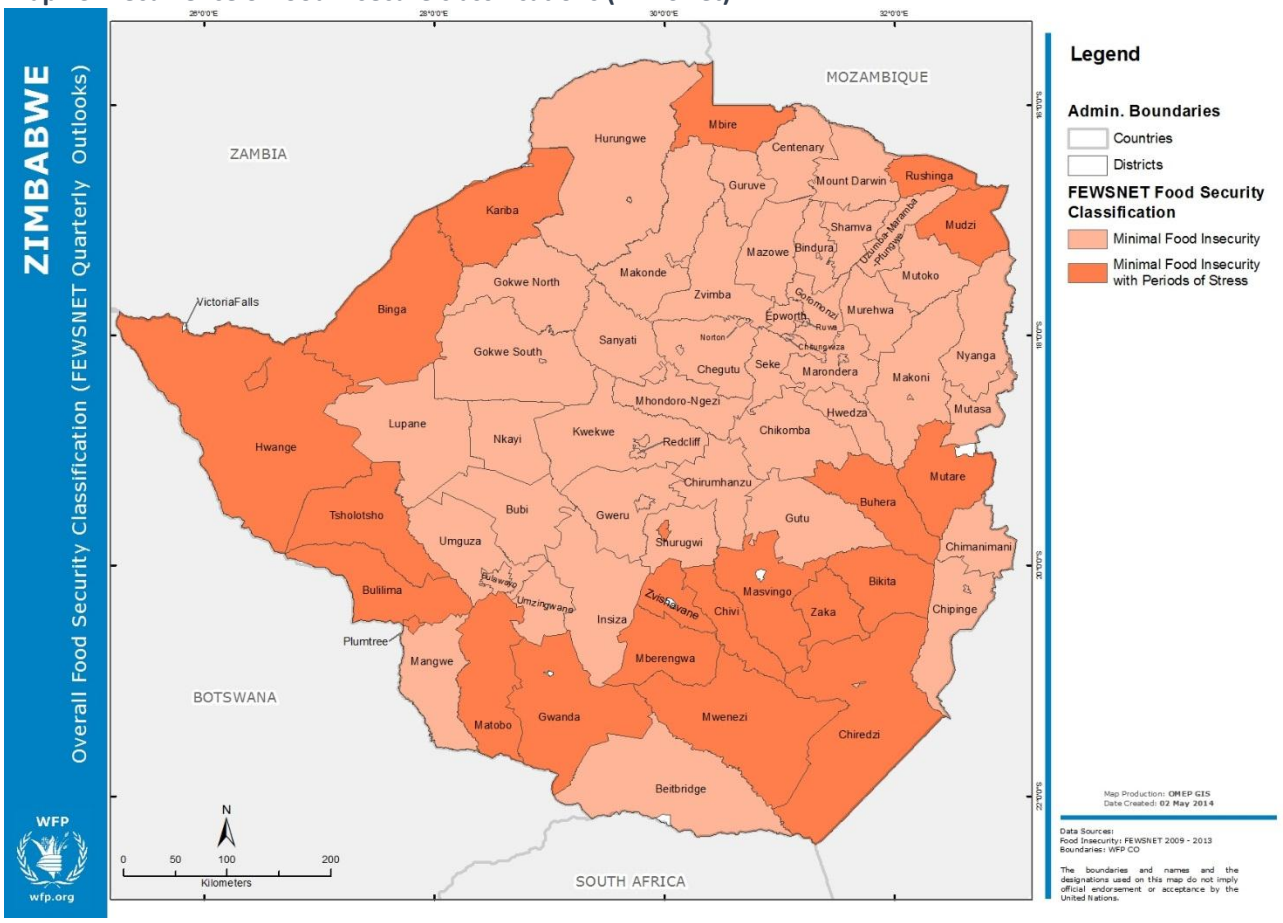
- These three classifications already indicate food insecurity in 20% or more of the population
- The 'Emergency' classification only occurred three times in pocket areas (and not at district level)

[5] http://www.fews.net/our-work/our-work/integrated-phase-classification

Three classes were then constructed to better interpret whether the **frequency** of FEWSNET classifications depicting the occurrence of food insecurity (above 20% of the population) could be seasonal or as a result of a shock/crisis. The following was assumed, and districts classified accordingly and mapped (***Map 23***):

No. of times out of 20 (i.e. 4 per year) district food security classifications (of population >20%) were 'Stressed, Critical, or Emergency)			
	0 - 4 times out of 20 outlooks (or 1 year out of 5)	**5 - 12 times out of 20 outlooks (or 2-3 years out of 5)**	**13 - 20 times out of 20 outlooks (or 4-5 years out of 5)**
ICA Reclassification	LOW (1)	MEDIUM (2)	HIGH (3)
Assumptions	*Either an irregular or constant seasonal pattern, or a bad year*	*A constant seasonal pattern (5 to 10 times), or 2 to 3 bad years in the last 5 years*	*Consistent high levels of food insecure populations – not related to seasonal issues*

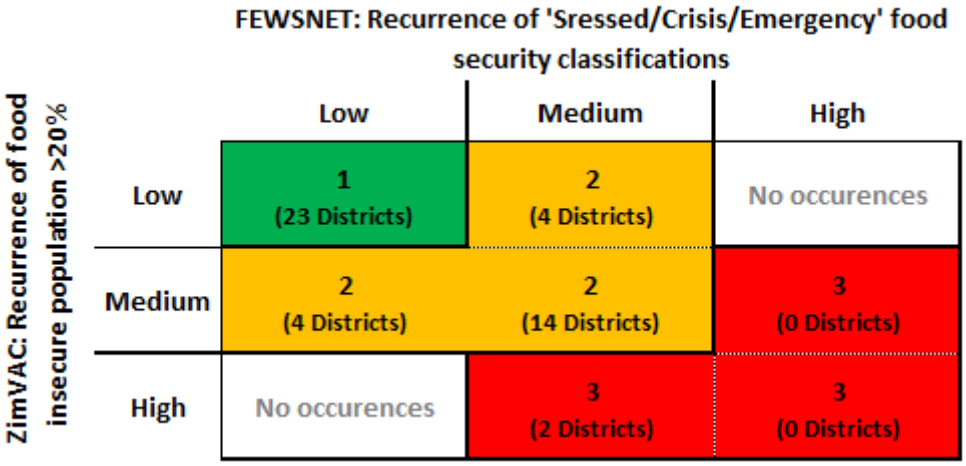
Map 23: Recurrence of food insecure classifications (FEWSNet)



4.1.3. Triangulating and combining ZimVAC and FEWSNET trend analyses

As ZimVAC data indicates the percentage of food insecure populations whilst FEWSNET classifications describes the depth of food insecurity of this population, the two measures are not directly comparable. However, it would be expected that an increase in the number of food insecure populations reflects a deterioration in the situation, and hence a worse food security classification – thus, a higher recurrence of food insecure populations above 20% should triangulate against an increased frequency of poor food security classification.

Outcomes from the trend analyses of where food insecure populations were recurrently above 20% of the district total (ZimVAC) were triangulated against and then combined with the frequency of food insecurity classifications depicting where 20% or more of the populations were food insecure (FEWSNET), into a single classification to depict the recurrence of food insecure populations above the selected threshold.



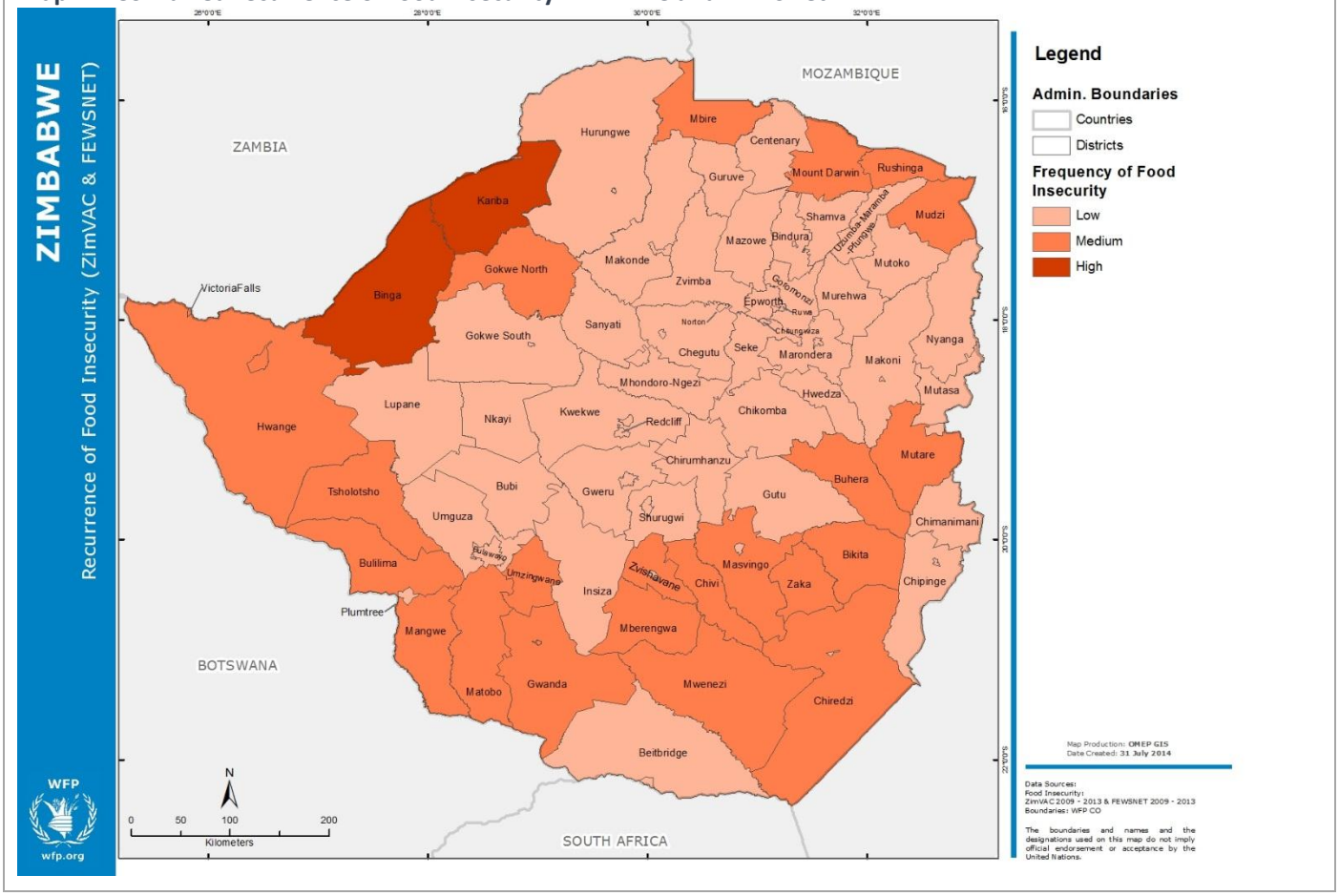
Using the above, the combined ZimVAC and FEWSNET trend analyses between 2009 and 2013 of the recurrence of food insecure populations above 20% in a district were placed into a final reclassification (below) and shown in ***Map 24***:

Combined ZimVAC & FEWSNET classification	**1**	**2**	**3**
Final reclassification	LOW (1)	MEDIUM (2)	HIGH (3)

NOTE: to err on the side of caution, districts that were not found to be in the same category in the ZimVAC and FEWSNET trend analyses were always placed in the class that reflected the higher level of food insecurity recurrence. There could be a number of reasons why these districts did not fall into the same category, however it is recommended that these be highlighted and discussed amongst partners to better understand whether the food security situations had been adequately captured during the assessments. These districts requiring further discussion are as follows:

Districts identified as: **ZimVAC 'Low' / FEWSNET 'Medium'**	Districts identified as: **ZimVAC 'Medium' / FEWSNET 'Low'**	Districts identified as: **ZimVAC 'High' / FEWSNET 'Medium':**
• Bikita • Buhera • Masvingo • Mutare	• Mangwe • Mt Darwin • Gokwe North • Umzingwane	• Binga • Kariba

Map 24: Combined recurrence of food insecurity – ZIMVAC and FEWSNet



4.2. Natural shocks

4.2.1. Overview: reclassification methods for shocks & aggravating factors

The two main natural shocks identified in Zimbabwe were droughts and floods.

Reclassifications have been made through an integration of quantitative and qualitative approaches – i.e. the quantitative approach is the standard mathematical classification schemes behind the classifications, whilst the qualitative approach is the perception/assumption of 'what it is/is not' according to its context.

The classification process which generates the creation of differences is a crucial step for the interpretation of information, and decisions taken at this stage have a significant impact on the representation of the final maps. When considering classifications for shocks and aggravating factors, thresholds which define each district as having a low, medium and high surface percentage for each type of natural hazard were identified. To make these decisions, it is important to have in mind the heterogeneity of the data between the different types of natural hazards and the distribution of the percentages within each type of natural hazard (histogram). Therefore, it has not been possible to establish common classification thresholds between the different types of natural hazards and aggravating factors.

According to the nature of the information and to the cartographic needs, different classification methods can be chosen:

The ***Equal Interval*** method states that the classes are divided into regular intervals (i.e. 1--3, 4--6, 7--, etc.). The ***Quintile*** method contains the same number of elements by class, and the intervals/cut-offs are set in this way depending on the sample type. Other methods, such as ***Geometric Standard*** *or* ***Deviation Interval*** are suitable for the representation of data with high dispersion and internal heterogeneity.

For the shocks and aggravating factors in this ICA, preference to using natural breaks (Jenks) was given. This method is designed to obtain the best possible categorization within the values of the different classes. The technique is based on natural groupings inherent to the data: the class breaks are identified to best group similar values and to maximize the

differences between classes. This method reduces the variance within the classes and maximizes the variance between different classes.

After classifying each layer using this method, a consultative *qualitative approach* was then applied to slightly adjust the classes. Whilst recognizing that there is no perfect method of classification, the ICA analysts believed this was the most appropriate approach given the context and type of data.

4.2.2. Droughts

National level data on drought occurrences was not available, thus two remote-sensed data sets were used as a proxy to understand exposure to droughts: Water Requirement Satisfaction Index[6] (WRSI) and Normalized Difference Vegetation Index (NDVI).

WRSI: used as a proxy to agricultural drought based on the assumption that poorer crop performance is a result of water stress conditions. A 13-year trend analysis (2000 - 2012) was conducted and results classified as follows:

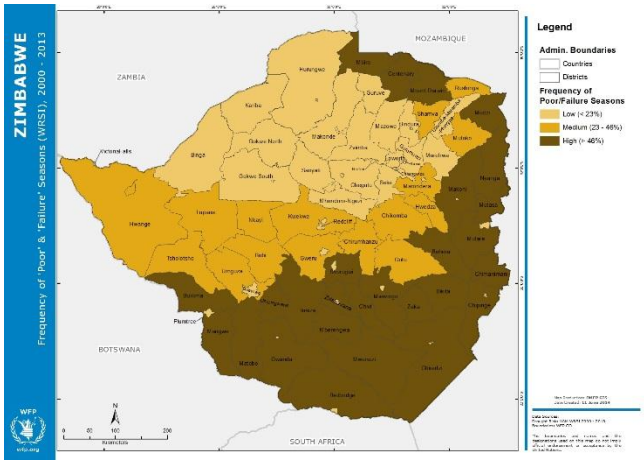
WRSI CLASS	PERCENTAGE
Failure	0 - 49%
Poor	50 - 59%
Mediocre	60 - 79%
Average	80 - 94%
Good	95 - 99%

In order to have an indication of the worst-off areas, the number of times that each district was falling within the "Failure" and "Poor" categories was then counted and expressed as a frequency (***Map 11***).

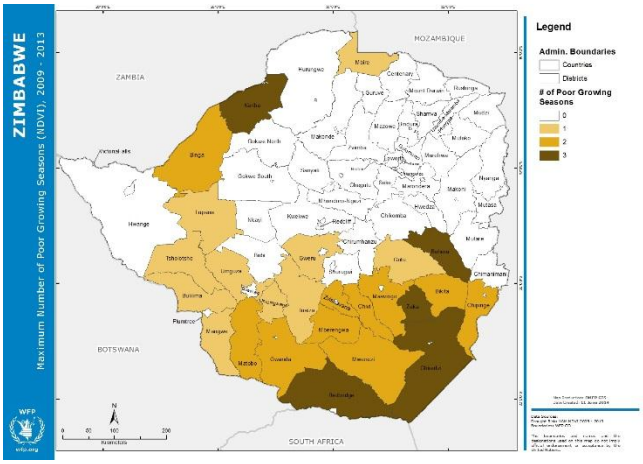
Note: WRSI only addresses agricultural drought for specific crops.

NDVI: A 15-year (1998-2012) trend analysis of NDVI was conducted, yielding two results. The first analysis determined the number of times in the last 5 years that NDVI was significantly below the 15 year average – this would be used as a proxy to determine which districts would have more recently experienced significant below-average vegetation growth (i.e. drought conditions). These results, presented in ***Map 12***, show a striking correlation with the results of the food security 5-year trend analyses using ZimVAC and FEWSNET data.

Map 25: Drought proxy – 13 year trend WRSI



Map 26: Frequency of poor growing seasons in last 5 years (NDVI)

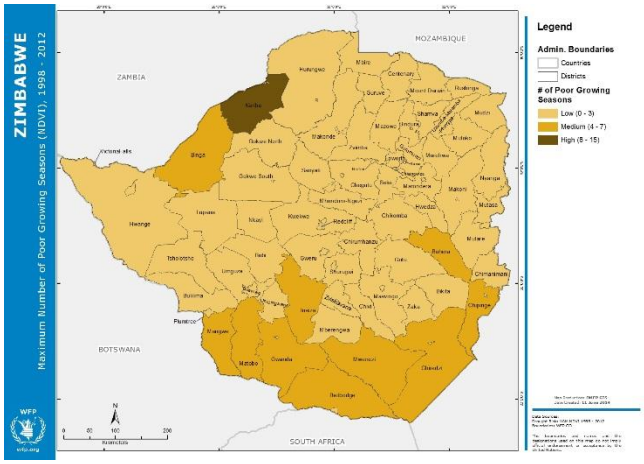


Similarly, a second analysis was conducted to identify which areas in the last 15 years experienced more frequent below-average vegetation growth. This is used a proxy to identify those areas experiencing more drought-like conditions, and as a layer to integrate with the WRSI trend analysis to determine those districts exhibiting a greater risk to drought.

The number of poor growing seasons in the past 15 years is shown in ***Map 27***:

[6] Water Requirement Satisfaction Index is an indicator of crop performance based on the availability of water to the crop during a growing season. WRSI for a season is based on the water supply and demand a crop experiences during a growing season. It is calculated as the ratio of seasonal actual evapotranspiration to the seasonal crop water requirement. Source: USGS.

Map 27: Drought proxy 15 year trend (NDVI)



Combining WRSI and NDVI: the integration these two datasets identifies both areas of convergence and additional areas not been captured by the frequency of WRSI. The long-term records from both indicators are reasonably comparable (WRSI 2000-2013; NDVI 1998-2012) – combining the WRSI and number of poor growing seasons (NDVI) was done as follows (findings presented in ***Map 28***:):

Maximum Frequency of poor growing seasons (1998 - 2013)

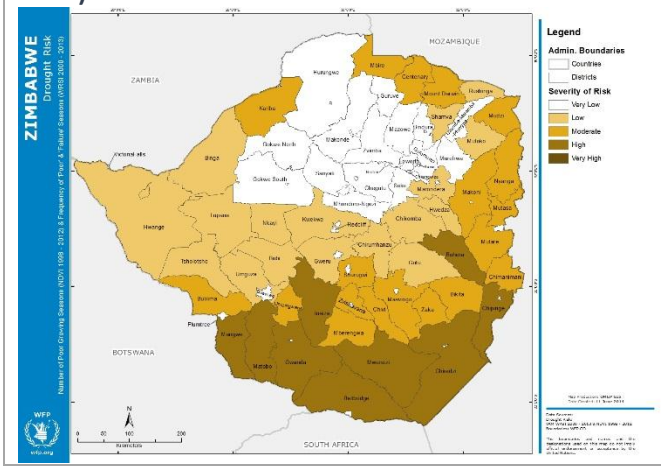
WRSI DROUGHT	LOW (1)	MEDIUM (2)	HIGH(3)
LOW (0 -1)	2	3	4
MEDIUM (2)	3	4	5
HIGH (3)	4	5	6

RISK SCORE
VERY LOW
LOW
MODERATE
HIGH
VERY HIGH

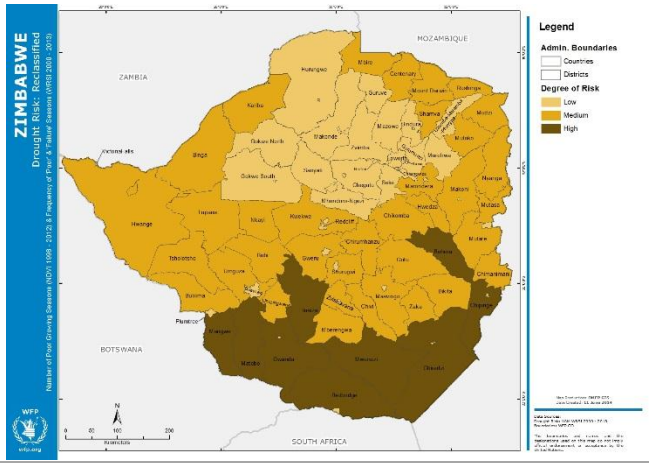
These were then reclassified into the following 3 categories and displayed in ***Map 29***:

2 Drought risks (WRSI & NDVI)	1 - 2	3 - 4	5 - 6
Reclassification	LOW	MEDIUM	HIGH

Map 28: Severity of drought risk (combined WRSI and NDVI)



Map 29: Drought Risk



4.3. Land degradation

The status of the natural environment can magnify the impact of shocks. Heavily degraded land is no longer protected due to soils being laid bare as vegetation cover is lost, and becomes unable to withstand the natural elements it is exposed to such as rain, wind, and temperatures. These elements on degraded land further increase land degradation and erosion, leading to a cyclical and destructive effect that makes land extremely fragile and unable to withstand even normal climatic patterns. Given that people draw on the surrounding natural environments for their livelihoods and to cope during times of crisis, poor land practices and unsustainable use of environmental resources will further aggravate land degradation and the risk of shocks. This becomes part of the pattern, with human pressure on land contributing to the risk of increasing degradation, and further stripping of vegetation and soils in an effort to cope with the resulting increase in shocks.

No land degradation data was available, thus a deforestation analysis was performed using remotely sensed data[7] as a proxy. Deforestation trends between 2000 and 2010 were calculated as follows:

- Using images with a resolution of 200 meters, the percentage of forest cover decrease between 2000 and 2010 was estimated and the raster reclassified ranging from 1 (strong increase) to 5 (strong decrease).
- Areas with values 4 or 5 (moderate or strong decrease) were extracted, and the total percentage and proportion of deforested area for each district was calculated.
- Using natural breaks, these two variables (percentage and surface) were then reclassified with values from 1 to 3:

Percentage of Tree Cover Loss	
LOW (1)	0 - 6%
MEDIUM (2)	6.1 - 13.5%
HIGH (3)	13.6 - 32%

Surface of Tree Cover Loss	
LOW (1)	0 - 542 Km2
MEDIUM (2)	543 - 1,622 Km2
HIGH (3)	> 1,622Km2

These two variables were then combined as follows (below and findings presented in ***Map 30***) as an estimation of general severity of deforestation.

		Km2 of Surface Loss		
		LOW (1)	MEDIUM (2)	HIGH (3)
% of Surface Loss	LOW (1)	**2**	**3**	**4**
	MEDIUM (2)	**3**	**4**	**5**
	HIGH (3)	**4**	**5**	**6**

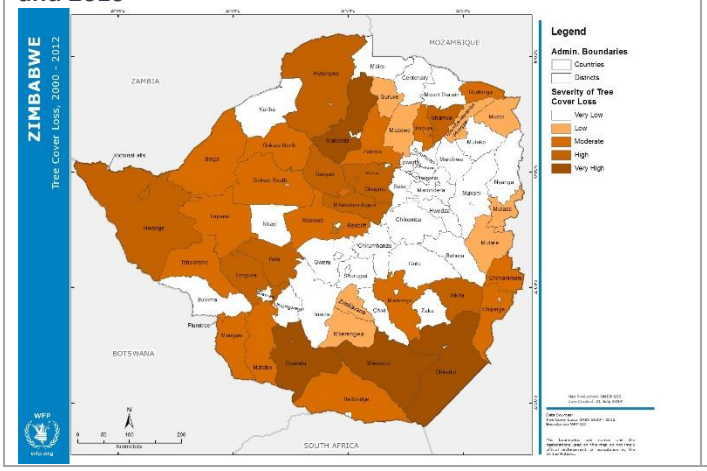
SEVERITY SCORE
VERY LOW
LOW
MEDIUM
HIGH
VERY HIGH

These were then reclassified into the following 3 categories and displayed in ***Map 31***:

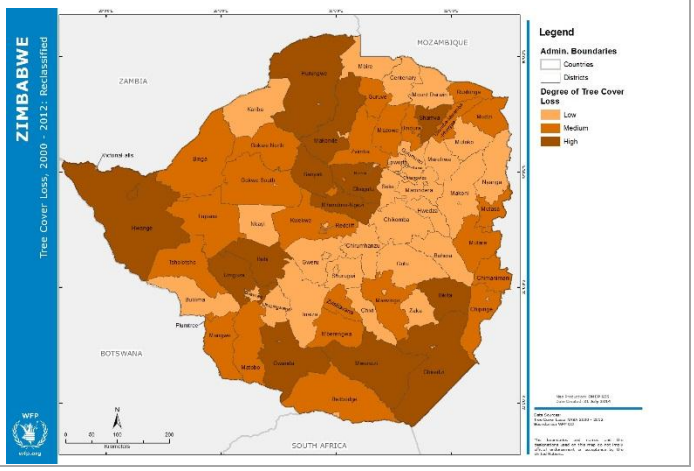
Levels of land degradation	**Very Low**	**Low - Medium**	**High - Very High**
Reclassification	**Low**	**Medium**	**High**

[7] Source: Hansen/UMD/Google/USGS/NASA

Map 30: Severity of tree cover decrease between 2000 and 2010

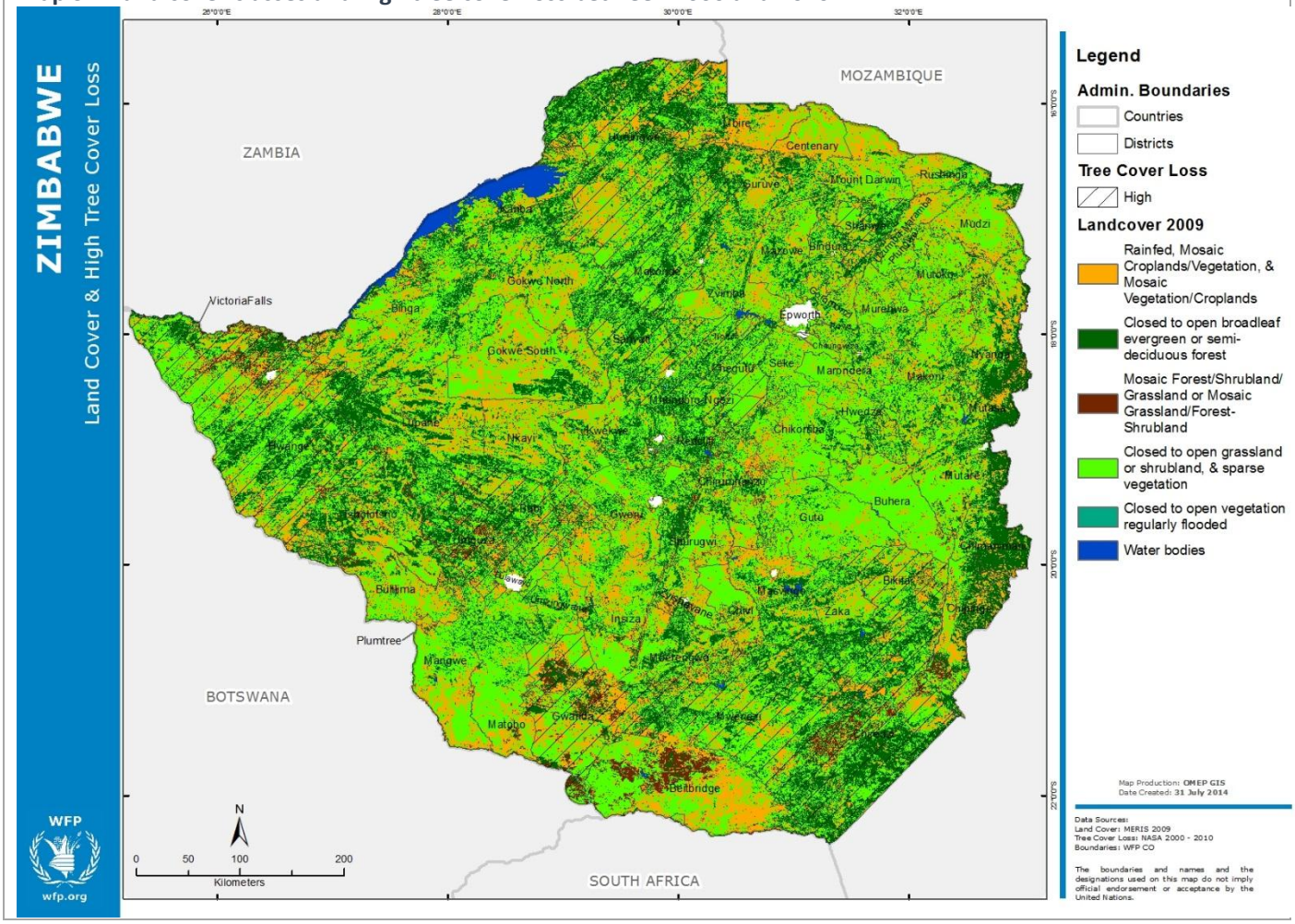


Map 31: Degradation proxy (deforestation reclassified)



Finally, this deforestation layer was overlaid onto land cover to identify which land cover uses (for livelihoods) have been most affected in the past 10 years. What is striking is that the greatest levels of deforestation are seen in grasslands and areas with sparse vegetation (***Map 32***):

Map 32: Land cover classes and high tree cover loss between 2000 and 2010



4.4. Livelihoods

Twenty-four main livelihoods zones were identified in Zimbabwe which can be broadly categorized into nine categories. Brief descriptions of what they entail are provided below (ZIMVAC, May 2011, Zimbabwe Rural Livelihoods Baselines Final Report).

Agro fisheries are communities that predominantly depend on fishing for their livelihood. These can either be individuals or groups with tools and skills that enable them to harvest substantial fish to sustain their livelihoods.

Commercial large-scale farming comprise of former large-scale commercial farmers as well as the newly formed A2 farmers. These are relatively large farms of varying sizes where production of both livestock and crops is primarily for the market. In this sector there is a large pool of households dependent on providing labour to commercial farms, either on casual basis or long term contracts. This also includes a sub-category specialized on timber, tea, coffee, fruit, and horticulture estates in the Eastern Highlands.

The following 5 livelihood zones may be positioned in this group: *Cereal and Low Cotton Communal*, *Eastern Highlands Commercial Farming*, *Eastern Kalahari Sandveld Communal, Highveld Prime Cereal and Cash Crop Resettlement*, and *Irrigated Commercial Sugar and Fruit Farming*.

Communal farming comprise of roughly 65% of communal areas lie in agroecological or natural regions III, IV and V where the dominant form of livelihoods is small-holder mixed farming, i.e. cropping and livestock. The relative importance of livestock is greater in the south than it is in the northern part of the country. Remittances mainly from South Africa are an important source of household income in the southern districts.

The following 18 livelihood zones may be positioned in this group: *Beitbridge South Western Lowveld Communal, Bikita-Zaka Highlands Communal, Central and Northern Semi Intensive Farming, Cereal and High Cotton Communal, Cereal and Low Cotton Communal, Eastern Highlands Prime Communal, Eastern Kalahari Sandveld Communal, Greater Mudzi Communal, Highveld Prime Cereal and Cash Crop Resettlement, Highveld Prime Communal, Kariba Valley and Kariangwe-Jambezi Communal, Livestock and Cereal Farming Communal in Forests, Masvingo Manicaland Middleveld Smallholder, Matabeleland Middleveld Communal, Mwenezi, Chivi and South Midland Communal, Northern Zambezi Valley Communal, Save River Valley and Ndowoyo Communal,* and *Western Kalahari Sandveld Communal.*

Commercial small holder are identified as private properties which are relatively smaller compared to the large scale commercial farms. Their main source of livelihood is income from mixed farming.

The following 2 livelihood zones may be positioned in this group: *Highveld Prime Cereal and Cash Crop Resettlement* and the *Masvingo Manicaland Middleveld Smallholder* zone.

Mixed Farming is a farming method that is practiced in all the livelihood zones but they are communities where this is used as a copying strategy to diversify income sources and reducing risk.

The following 7 livelihood zones may be positioned in this group: Cattle and Cereal Farming: *Cereal and High Cotton Communal, Greater Mudzi Communal, Highveld Prime Cereal and Cash Crop Resettlement, Highveld Prime Communal, Livestock and Cereal Farming Communal in Forests, Lusulu, Lupane and Southern Gokwe Mixed Agriculture*.

Some communities are involved in **small scale mining** mainly of chrome along the Great Dyke and in other mining centres across the country. The *Mutorashanga Informal mining* livelihood zone falls into this grouping.

The final livelihood zone is identified as **semi-intensive farming** which includes the old resettlements and A1 farming sector. These areas comprise of farmers that benefited off relatively small pieces of land (4 – 6 hectares) from land resettlement programmes before 2000 and after 2000 respectively. In terms of livelihoods and farming practices they are very similar to communal farmers but they tend to have better agricultural land. The *Central and Northern Semi Intensive Farming* livelihood zone falls into this grouping.

A number of livelihood zones may fall into more than one livelihood classification (overlap) depending on the specific locations and populations in question. For example:

- The *Highveld Prime Cereal and Cash Crop Resettlement* livelihood zone can be classified as either commercial farming, commercial small holder, mixed farming or even communal farming;

- The *Greater Mudzi Communal, Highveld Prime Communal, Cereal and High Cotton Communal* and *Livestock and Cereal Farming Communal in Forests* livelihood zones can all be classified as either **communal farming or mixed farming**;
- The *Masvingo Manicaland Middleveld Smallholder* livelihood zone may be classified as **commercial smallholder or communal farming**;
- The *Cereal and Low Cotton Communal* and the *Eastern Kalahari Sandveld Communal* livelihood zones may be classified as **commercial or communal farming**; and
- The *Central and Northern Semi Intensive Farming* livelihood zone may be classified as either **communal or semi-intensive farming**.

Part 5. Annexes and Data Tables

5.1. Annexes

5.1.1. About the ICA

The Integrated Context Analysis (ICA) is an analytical process that contributes to the identification of broad national programmatic strategies, including resilience building, disaster risk reduction, and social protection for the most vulnerable and food insecure populations. The ICA can be used to identify more specific programme responses at sub-national levels, and identifies areas where further in-depth studies or food security monitoring and assessment systems are needed. They guide the identification of priority areas in which to conduct Seasonal Livelihood Programming (SLP) consultations to identify area-specific complementary and multi-sectorial programmes with governments and partners, which in turn set the foundations for targeted joint efforts with communities and partners to plan and implement programmes through Community-Based Participatory Planning (CBPP) .

The ICA is based on principles of historical trend analyses across a number of technical and sectorial disciplines, the findings of which are overlaid to identify areas of overlap. Trend analyses provide an understanding of what has happened in the past and what may (or may not) be changing to act as a proxy for what may occur in the future, and where short, medium, and longer term programming efforts may be required. By overlaying these findings on each other, combinations of broad underlying issues – recurring food insecurity, shocks, and aggravating factors – can be identified, and in turn the combinations of broad programmatic strategies that may be required to address these in a more holistic manner, drawing on the comparative advantages and technical expertise of governments, partners, communities, and of affected populations themselves.

This ICA for [Title] has been carried out in consultation with ZimVAC, the Food and Nutrition Council , Ministry of Agriculture, FEWS NET, UNICEF, FAO and development partners. WFP's Emergency Preparedness (OMEP) and Programme (VAM and Programme Design) Divisions and VAM Unit in Zimbabwe provided technical assistance in integrating data, analysis and mapping. It acts as a contribution to discussions on programming strategies and on which to build further in-depth studies together with government and other stakeholders in [Title]. It covers three broad analytical domains – trends of food insecurity (with an overlay of malnutrition), main natural shocks (droughts and floods) and loss of vegetative (forest) cover as a proxy to land degradation as a factor that increases the risk and heightens the impact of these natural shocks.

The report is structured in 3 sections as follows:

Part 1. Summary of ICA Findings provides an overview of the different areas where convergences between recurring food insecurity and exposure to natural shocks were found, and what this may imply in programmatic terms.

Part 2. ICA Core Findings presents the findings of the core dimensions and lenses of the ICA.

Part 3. ICA Programme Implications gives an overall description of each of the five Category areas, providing broad entry points to contribute to designing more strategic approaches to overall programming in these areas.

Part 4. Analytical methods presents details on the various analyses undertaken, including calculations, considerations and data limitations and issues as relevant.

Part 5. Annexes and Data Tables presents a background information on the ICA, data sources and key data tables, limitations and opportunities of the ICA and other pertinent information.

5.1.2. Data sources

The ICA for Zimbabwe is based on the use and analysis of the data sets listed below.

Food Security:

Zimbabwe Vulnerability Assessment Committee (ZimVAC, 2009-2013)

FEWSNET food security outlooks from 2009-2013

Nutrition:

National Nutrition Survey, 2010

Populations and Livelihoods:

Population Density (people per km2); source LandScan 2011

Livelihood Zones; source Zimbabwe Vulnerability Assessment Committee/Food and Nutrition Council

Settlements; source Global Discovery 2007

2012 Census Report of the Zimbabwe National Statistics Agency (ZIMSTAT)

Flood Risk:

Modelled flood frequency expressed as return period (expected frequency of flood occurrence), source UNEP Global Risk Data Platform

Drought risk:

13-year (2000 – 2013) Water Requirement Satisfaction Index (WRSI); source USGS

15-year (1998 - 2012) NDVI (Normalized Difference Vegetation Index); source VAM analysis

5-year (2009 – 2013) NDVI (Normalized Difference Vegetation Index); source VAM analysis

Land cover and land degradation:

Tree cover decrease 2000 – 2010, 200 meter resolution; source Hansen/UMD/Google/USGS/NASA

Landcover 2009; source MERIS

Administrative data:

Administrative boundary 0, 1, 2; source Department of the Surveyor General, Zimbabwe.

5.1.3. Constraints and opportunities of the analysis

5.1.3.1. Constraints:

The ICA is based on secondary data from various sources that have been collected and produced for different purposes other than the ICA, which can result in variations between time references, accuracy, and geographical coverage. Given this, there is a strong use of qualitative rather than quantitative/statistical analysis in the ICA.

To overcome some of these challenges the ICA is conducted on a geographical basis, and at the lowest common boundary (usually administrative, and in Zimbabwe this was by district) of all the datasets, which can result in the necessary reduction in resolution of some of the data so that it can be applied to the selected boundary – for example, flood risk is identified at sub-district level, but will be aggregated upwards to assign that county a flood risk value, resulting in the loss of some precision.

Some information used may also not have national coverage, and No-Data values for some particular areas will exist.

5.1.3.2. Opportunities:

The ICA is based on secondary data from various sources that have been collected and produced for different purposes, other than the ICA. These datasets allow for an analysis of food security trends to identify geographical areas with similar food security patterns in relation to other factors such as shocks and livelihoods. Although areas where these indicators converge are identified, the ICA does not attempt to provide a causal analysis. Rather, it provides considerations as to where additional assessment work and more detailed thematic and causal analyses can be focused – particularly where resource constraints exist.

Data used for the food security analysis were taken from the Zimbabwe Vulnerability Assessment Committee (ZimVAC, 2009-2013) and FEWSNET food security outlooks from 2009-2013. Such consecutive series of food security data provides the opportunity to undertake trend analyses that identify changes over time which in turn provide an essential foundation for medium to longer-term strategy and programme development.

The results from the ICA show in which areas critically high malnutrition rates are recurring provide good justifications on where to carry out nutrition studies to find out more accurate prevalence figures.

In several steps of the ICA it has been necessary to determine thresholds and classes with the aim of classifying and reducing the complexity of the datasets – for example, the food security data provides a specific percentage of food insecure people, but districts were classified into low, medium and high recurrence of food insecurity over a set threshold, etc. Although this results in more detailed food security information not being captured, it is still sufficient to determine the trends of recurrence over the set threshold. Determining these thresholds is a qualitative decision based on consultation amongst the analysts involved in the ICA, and there is no set benchmark per se – thereby making the ICA a more flexible and less prescriptive approach and better adapted to the knowledge and judgment of the analysts in the country. The data of the different indicators is captured and geo-referenced in a table, allowing for the entire analysis to be re-rerun at any time if the analysts and partners feel that certain thresholds should be changed.