ZIMBABWE

ZIMBABWE'S EL NINO-INDUCED DROUGHT: STRATEGIES AND MEASURES FOR MITIGATION AND RESILIENCE BUILDING

BY

MINISTER OF LANDS, AGRICULTURE, FISHERIES, WATER AND RURAL DEVELOPMENT

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1.0. BACKGROUND AND CONTEXT

1.1. Zimbabwe's policy and strategy for agriculture are guided by Vision 2030 and the National Development Strategy (NDS1).

1.2. At sector level, the Agriculture and Food Systems Transformation Strategy (AFSTS) was launched by the President, His Excellency, Dr. E.D. Mnangagwa in August 2020 to create a USD 8.2 billion industry by 2025. By 2022, the sector had grown to USD 9.9 billion. The AFSTS was accordingly upgraded to the Agriculture, Food Systems and Rural Transformation Strategy (AFSRTS) in 2023 to create a USD 13.75 billion industry by 2025. The AFSRTS is attached for ease of reference.

1.3. The AFSRTS is anchored on climate-proofing agriculture, in the context of climate change, as Zimbabwe and the whole of the Southern African region are predicted to become drier in the decades ahead. For example, dryland maize production, under conservative-climate change scenarios, will decrease by an average 17% by 2050 in Zimbabwe.

1.4. Zimbabwe has adopted a twin-pronged approach to climate-proofing agricultural production since 2020, which has seen Zimbabwe return to national cereal sufficiency in normal rainfall years.

1.4.1. At the small-holder level, the sustainable intensive conservation model, Pfumvudza/Intwasa, with attendant agro-ecological matching of crops, launched in the 2020/2021 summer season, has largely worked well (Fig 1), but it too is ultimately a rain fed practice, requiring rainfall for its success (Table 1).

1.4.2. At the national level, Cabinet approved the Accelerated Irrigation Rehabilitation and Development Plan in 2021, with the aim of developing 350 000 ha for summer irrigation by 2025, to produce 1.8 million MT summer cereals annually, at 5MT/ha, enough to feed the population and generate a surplus annually. This target excludes feed requirement of 400 000MT, equivalent to 80 000 ha under irrigation.

Fig 1: General Performance of Conventional and Pfvumvudza in a good season

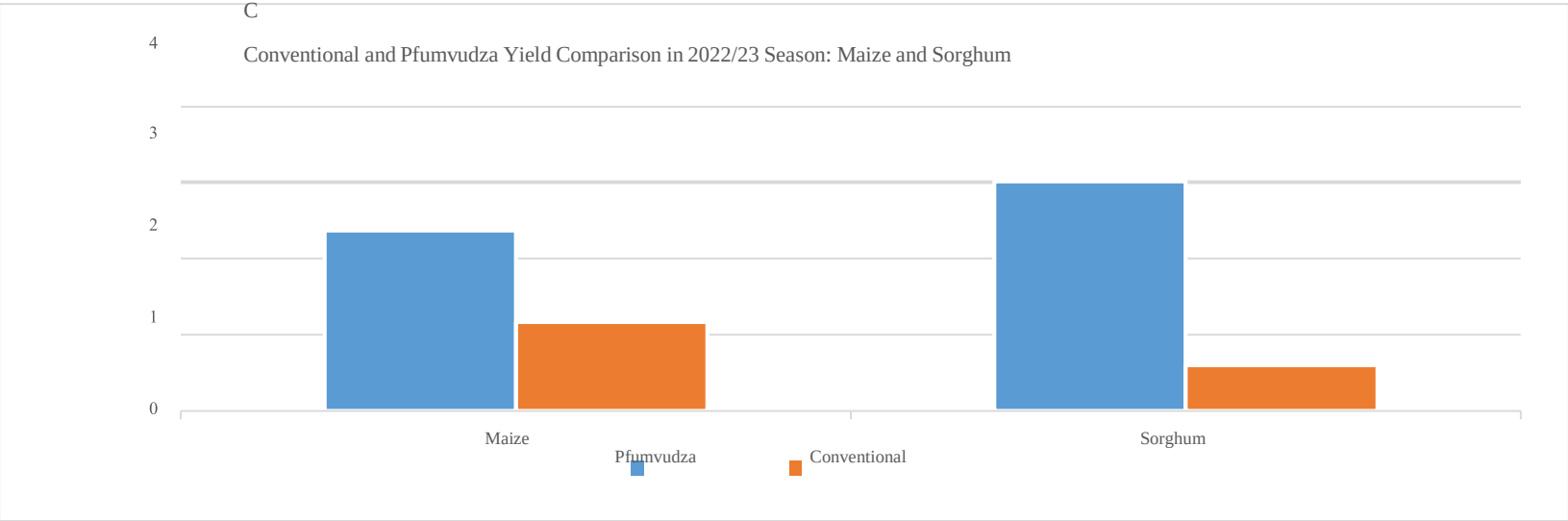


Table 1: Yields under Conventional and Pfumvudza in a drought year

Province	Sorghum 2023/2024		Maize 2023/2024	
	Conventional Yield (Mt/ha)	Pfumvudza/ Intwasa Yield (Mt/ha)	Conventional Yield (Mt/Ha)	Pfumvudza/ Intwasa Yield (Mt/ha)
Manicaland	0.13	0.21	0.41	0.50
Mashonaland Central	0.21	0.22	0.28	0.30

Province	Sorghum 2023/2024		Maize 2023/2024	
	Conventional Yield (Mt/ha)	Pfumvudza/ Intwasa Yield (Mt/ha)	Conventional Yield (Mt/Ha)	Pfumvudza/ Intwasa Yield (Mt/ha)
Mashonaland East	0.06	0.19	0.35	0.38
Mashonaland West	0.21	0.26	0.47	0.21
Masvingo	0.17	0.27	0.35	0.34
Matabeleland North	0.02	0.03	0.03	0.02
Matabeleland South	0.02	0.04	0.05	0.05
Midlands	0.08	0.17	0.07	0.14
Average Yield	**0.15**	**0.18**	**0.26**	**0.29**

A 20% increase in sorghum yield and 11.5% increase in maize yield, with bigger yield differences in drier provinces for sorghum than maize, emphasizing the importance of a combination of a drought-tolerant crop and Pfumvudza as a choice for future climate-proofing interventions, especially, in drier regions.

1.5. As approved by Cabinet in 2022, a revised Strategic Grain Reserve of 1.5 million MT (maize 1.2 million MT and traditional grains 0.3 million MT) is to be established, from the current 0.75 million MT, necessitating grain silo expansion to 1.25 million MT holding capacity, in the first phase.

1.6. As approved by Cabinet in 2023, the Agricultural and Rural Development Authority (ARDA) was designated the food security agent for the nation in 2023, with a target to annually produce 500

000 MT of summer cereals from 100,000 ha irrigable area, and 300 000 MT of winter cereals from 60 000 ha irrigable area. ARDA would produce on:

a) Its estates, with 20,179 ha arable land on 23 estates, with 2 500 ha under irrigation, and under Joint Venture production.

b) Irrigation schemes, with a plan for 460 irrigation schemes on 26 000 ha when fully developed, but currently 241 schemes on 19 000 ha and;

c) Joint Ventures on A1 and A2 farms.

1.7. Following this season's devastating El Nino-induced drought, the President declared a National State of Disaster on 3 April 2024. The declaration has an indicative resource requirement of USD 2 billion, for mitigation excluding USD 717 million for resilience building.

1.8. The agriculture sector's requirement is **USD 2,732,936,752** for (a) search and rescue **USD 2, 3 million**, mitigation **USD 2,013,277,560**, and **USD 717,359,192** for resilience building.

1.9. Zimbabwe must emerge from this drought stronger and better-able to withstand future climate-induced shocks.

1.10. This memorandum provides an update on the broader agricultural interventions with a focus on mitigation and resilience building strategies and measures.

1.11. The interventions are classed as:

1.11.1. Cereals
1.11.2. Horticulture
1.11.3. Livestock
1.11.4. Fisheries
1.11.5. Water and Irrigation

2.0. INTERVENTIONS

2.1. CEREALS

Table 2.1: Cereal Requirements and Availability under Different Scenarios

	MLAFWRD Planning Production Scenario **10 kg/pp/month**	**SADC Regional Average** **8.5 kg/pp/month**	**Zimbabwe Actual 2017** **7.7 kg/pp/month**
Human requirement (MT)	1,800,000	1,530,000	1,386,000
Livestock requirements (MT)	400,000	400,000	400,000
Total (MT)	2,200,000	1,930,000	1,786,000
Available grains and cereals (MT) [SGR plus expected harvest]	1,187,575	1,187,575	1,187,575
Winter SGR	248,000	248,000	248,000
Shortfall	**-764,425**	**-494,425**	**-350,425**

Table 2.2: Cereal Balance Sheet: Projected Intake and Drawdowns for Maize, Traditional Grains and Wheat to April 2025

	May	June	July	August	Sept	Oct	Nov	Dec	Jan-25	Feb-25	Mar-25	Apr-25	Totals
Opening Stock	**426,088**	**380,757**	**373,585**	**391,513**	**386,584**	**353,055**	**376,626**	**392,007**	**369,288**	**284,669**	**200,050**	**107,331**	**426,088**
Maize and Traditional grains	166,924	141,852	134,680	152,608	147,679	99,150	37,721	7,721	7,721	7,721	7,721	7,721	166,924
Wheat	259,164	238,905	238,905	238,905	238,905	253,905	338,905	384,286	361,567	276,948	192,329	99,610	259,164
Intake	**21,000**	**47,000**	**64,000**	**56,500**	**51,000**	**100,000**	**100,000**	**70,000**	**-**	**-**	**-**	**3,000**	**512,500**
Maize and Traditional grains	21,000	47,000	64,000	56,500	21,000	-	-	-	-	-	-	3,000	212,500
Wheat	-	-	-	-	30,000	100,000	100,000	70,000	-	-	-	-	300,000
Total stock	**447,088**	**427,757**	**437,585**	**448,013**	**437,584**	**453,055**	**476,626**	**462,007**	**369,288**	**284,669**	**200,050**	**110,331**	**938,588**
Maize and Traditional grains	187,924	188,852	198,680	209,108	168,679	99,150	37,721	7,721	7,721	7,721	7,721	10,721	379,424

Wheat	259,164	238,905	238,905	238,905	268,905	353,905	438,905	454,286	361,567	276,948	192,329	99,610	559,164
Out-take and Consumption (Social Welfare and Millers)	**66,331**	**54,172**	**46,072**	**61,429**	**84,529**	**76,429**	**84,619**	**92,719**	**84,619**	**84,619**	**92,719**	**84,619**	**912,876**
Maize and Traditional grain-Social Welfare	46,072	46,072	46,072	61,429	61,429	61,429	30,000	-	-	-	-	-	352,503
Maize and Traditional grain-Zunde raMambo		8,100			8,100								16,200
Wheat- Social Welfare	-	-	-	-	-	-	39,619	69,619	69,619	69,619	69,619	69,619	387,714
Wheat- Zunde raMambo								8,100			8,100		16,200
Wheat- Millers	20,259	-	-	-	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	140,259
Closing balance	**380,757**	**373,585**	**391,513**	**386,584**	**353,055**	**376,626**	**392,007**	**369,288**	**284,669**	**200,050**	**107,331**	**25,712**	**25,712**

Maize and Traditional grains	141,852	134,680	152,608	147,679	99,150	37,721	7,721	7,721	7,721	7,721	7,721	10,721	10,721
Wheat	238,905	238,905	238,905	238,905	253,905	338,905	384,286	361,567	276,948	192,329	99,610	14,991	14,991

Assumptions

- The maize and traditional intake is based mainly on projected deliveries by ARDA and AFC contracted farmers which are estimated at **150 000 MT** and **60 000 MT** respectively.
- The projected wheat intake is **300 000 MT**.

Table 2.3: Cereal Mitigation and Resilience Strategies and Measures

	Search and Rescue		Mitigation		Resilience	
Cereals	• Village-based Assessment indicates 6 of 9.2. million rural people will require assistance • 2nd Round of Crops, Livestock and Fisheries Assessment (CLAFA 2) indicates all except two	USD 1, 500,000	576 000 MT requirement for 6 million people for 12 months, down from 780 000 MT requirement for 9.2 million people, of which 405 000 MT 70%) is available to provide 7.5Kg/pp/month May to September (270 000 MT) and 8.5kg/pp/month	USD 189 000 000 worth of grain is available in the SGR $132,000,000 is required to purchase 300 000	• All farmers receiving social welfare must adopt Pfumvudza /Intwasa, to increase adoption from 51% to 100% in the 2024/2025 season • Area and Yield Index Insurance for all Pfumvudza for 3.5 million farmers	USD150,000,000 $1,000,000

	Search and Rescue		Mitigation		Resilience	
	districts have grain production shortages • Zimbabwe Livelihoods Assessment Committee (ZIMLAC) rural assessment underway • ZIMLAC Urban Assessment indicates 1.7 million people are food insecure		October to March (306 000MT); Social Welfare of 171 000MT to be met from: ARDA/AFC summer production of 212 000 MT from 46 000 ha irrigated maize and 248 000 MT wheat SGR through ARDA on 60 000ha and 9750 MT on 3250 ha maize/sorghum this winter for October harvest. • As contingency Government to Import 300 000 MT maize • Grain movement from areas with surplus to areas with deficit. • GMB/Silo roller meal to stabilize urban mealie meal prices • Development of the Agriculture	MT of wheat at 440/MT	• 100 % Agro-ecological matching from 60% in 2024 summer season • Summer irrigation increase from 75 000 to 350 000 ha to produce 1,8 million MT against a requirement of 1.4 million MT for human consumption • A revised Strategic Grain Reserve of 1.5 million MT (maize 1.2 million MT and traditional grains 0.3 million MT) is to be established, from the current 0.75 million MT, necessitating grain silo expansion to 1.25 million MT holding capacity, in the first phase.	$6,000,000 $150 000 000 $ 20,000,000

	Search and Rescue		Mitigation		Resilience	
			Information Management System		• Promote adoption of irrigated Pfumvudza/Intwasa supplementing water at critical stages by all households from about 51% to 90% • ARDA to produce 45%, 800 000MT summer cereals and 300 000MTY winter cereals from 2025summer season, from 150 000MT summer and 300 000MT winter production in 2024. • Development of the 2024/2025 Summer Plan to be ready by Mid-June 2024 • Capacitation of Institutions, workers and farmers • Enhanced Coordination	

2.2. HORTICULTURE

Table 2.4: Vegetable combos, sweet potato vines and trees distribution update

Programme	Programme Overall Target	2024 Annual Target	Progress to Date	% Achievement of target of 2024
Irish Potato (ha)	*6,750	6 750*	1,912	28
Sweet Potato Vines (number)	90,000,000	2,000,000	1,294,000	65
Fruit trees (number)	18,000,000	200,000	50,000	25
Vegetable Combos (number)	3,500,000	3,500,000	1,329,128	40

- Target Area for Winter Irish potato Production

Table 2.5 Number of Villages by Natural Region by Province

PROVINCE	Natural Region 1	Natural Region 2A	Natural Region 2B	Natural Region 3	Natural Region 4	Natural Region 5	TOTAL
Manicaland	266	172	203	1192	693	296	2822
Mashonaland East	0	465	1316	1430	1033	0	4244
Mashonaland Central	0	462	696	203	1429	545	3335

Mashonaland West	0	465	1944	1213	480	0	4102
Masvingo	0	0	0	1160	2588	4944	8692
Matabeleland North	0	0	0	443	1961	801	3205
Matabeleland South	0	0	3	123	1274	1018	2418
Midlands	0	77	251	1469	2351	2194	6342
Total	**266**	**1641**	**4413**	**7233**	**11809**	**9798**	**35160**

The focus of the development of the 10 000 Village Business Units will be in agro-ecological regions 4 and 5, across all provinces. The drilling rigs have been re-distributed according to the number of villages by province as shown in Table 2.7. Initially, because of the drought the focus would be to establish a Village Business Unit in each of the water- and pasture-scarce wards, potentially 1000 of the 1620 rural wards. The ZINWA revised drilling map is shown in Fig 2

Fig 2: ZINWA Drilling Map

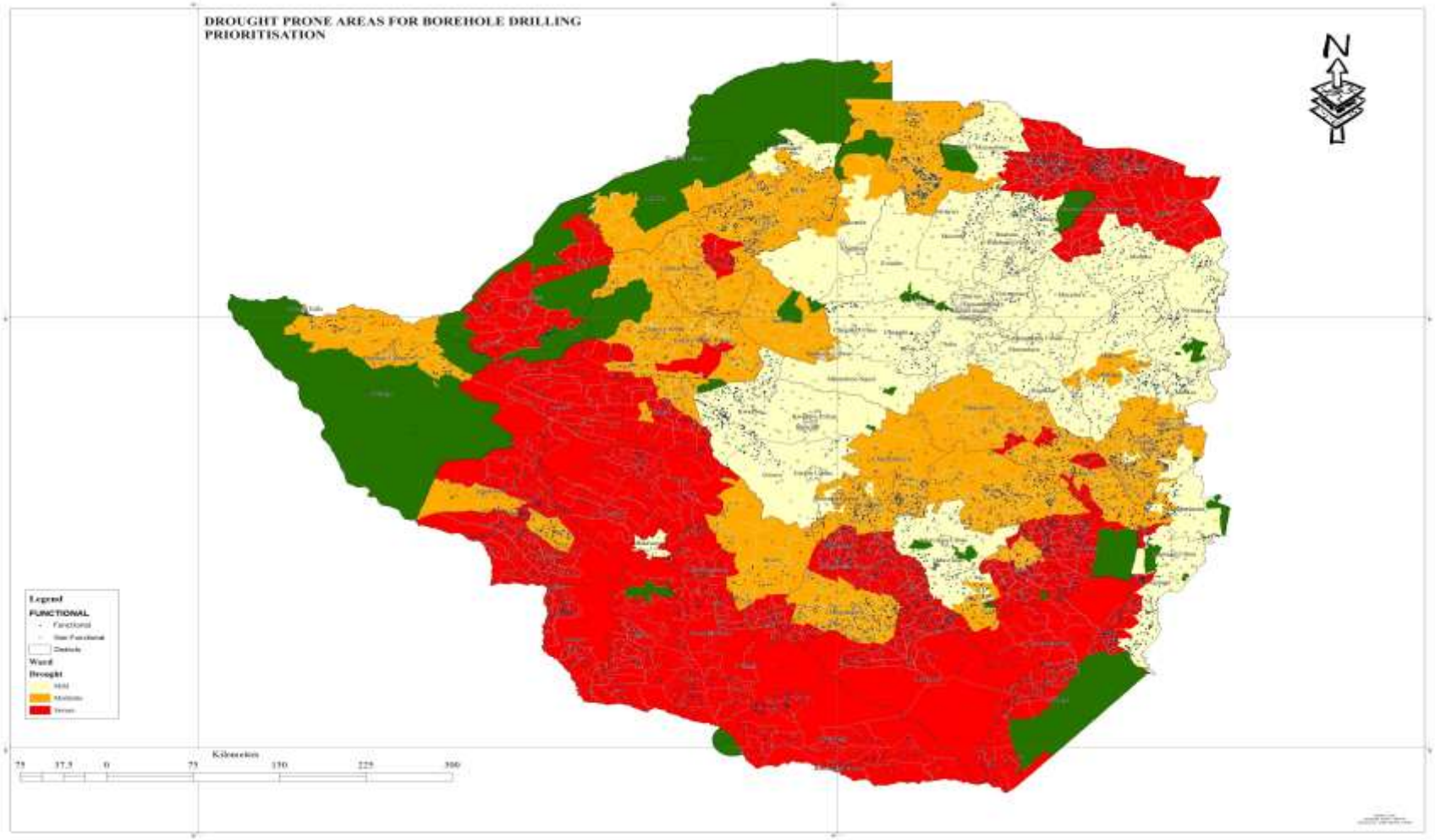


Table 2.6: Business Units, Boreholes Drilled, Boreholes equipped and Boreholes solarized

Province	Boreholes drilled to date	Boreholes equipped with Hand pumps	Boreholes solarised to date	VBU	SBU	CBU	YBU
Manicaland	429	74	20	41	9	1	1
Mashonaland West	206	35	1	12	2	0	0
Mashonaland East	290	69	19	14	9	2	0
Midlands	300	101	14	32	2	0	0
Matabeleland South	172	49	7	6	3	0	1
Masvingo	535	136	5	16	8	0	5
Bulawayo	79	52	1	1		0	0
Harare	346	83	60		5	0	0
Matabeleland North	204	89	22	9	0	16	1
Mashonaland Central	328	48	7	26	4	2	1
Totals	**2890**	**736**	**156**	**157**	**42**	**21**	**9**
							229

*VBU=Village Business Unit, SBU=School Business Unit, CBU=Chief Business Unit, YBU=Youth Business Unit

The boreholes drilled by RIDA, ZINWA and various partners are indicated in Table 2.7, these are being assessed for suitability for conversion to VBUs inn the drought areas.

Table 2.7: Boreholes Drilled by RIDA and ZINWA and Various Partners

	Total Water Points	**Boreholes**	**Dry**	**Break down**	**D/Wells**	**Dry**	**Break down**	**PWS**	**Dry**	**Break down**	**BHs Drilled but not Equipped**
Manicaland	**9,065**	**6,760**	75	435	**2,305**	18	220	**574**	0	30	**0**
Mashonaland Central	**4,942**	**3,670**	100	205	**1,272**	54	198	**189**	0	27	**0**
Mashonaland East	**6,638**	**5,157**	97	436	**1,481**	112	113	**336**	0	26	**0**
Mashonaland West	**6,332**	**5,677**	92	899	**655**	55	66	**219**	0	39	**21**
Masvingo	**8,099**	**6,332**	461	550	**1,767**	459	240	**259**	8	3	**16**
Matabeleland North	**4,579**	**3,643**	45	225	**936**	95	169	**226**	0	17	**32**
Matabeleland South	**6,709**	**4,501**	186	829	**2,208**	170	427	**373**	0	63	**9**
Midlands	**7,376**	**6,264**	135	1,226	**1,112**	90	160	**231**	0	30	**0**
Total	**26,763**	**20,740**	**827**	**2830**	**6,023**	**814**	**996**	**1,089**	**8**	**113**	**57**

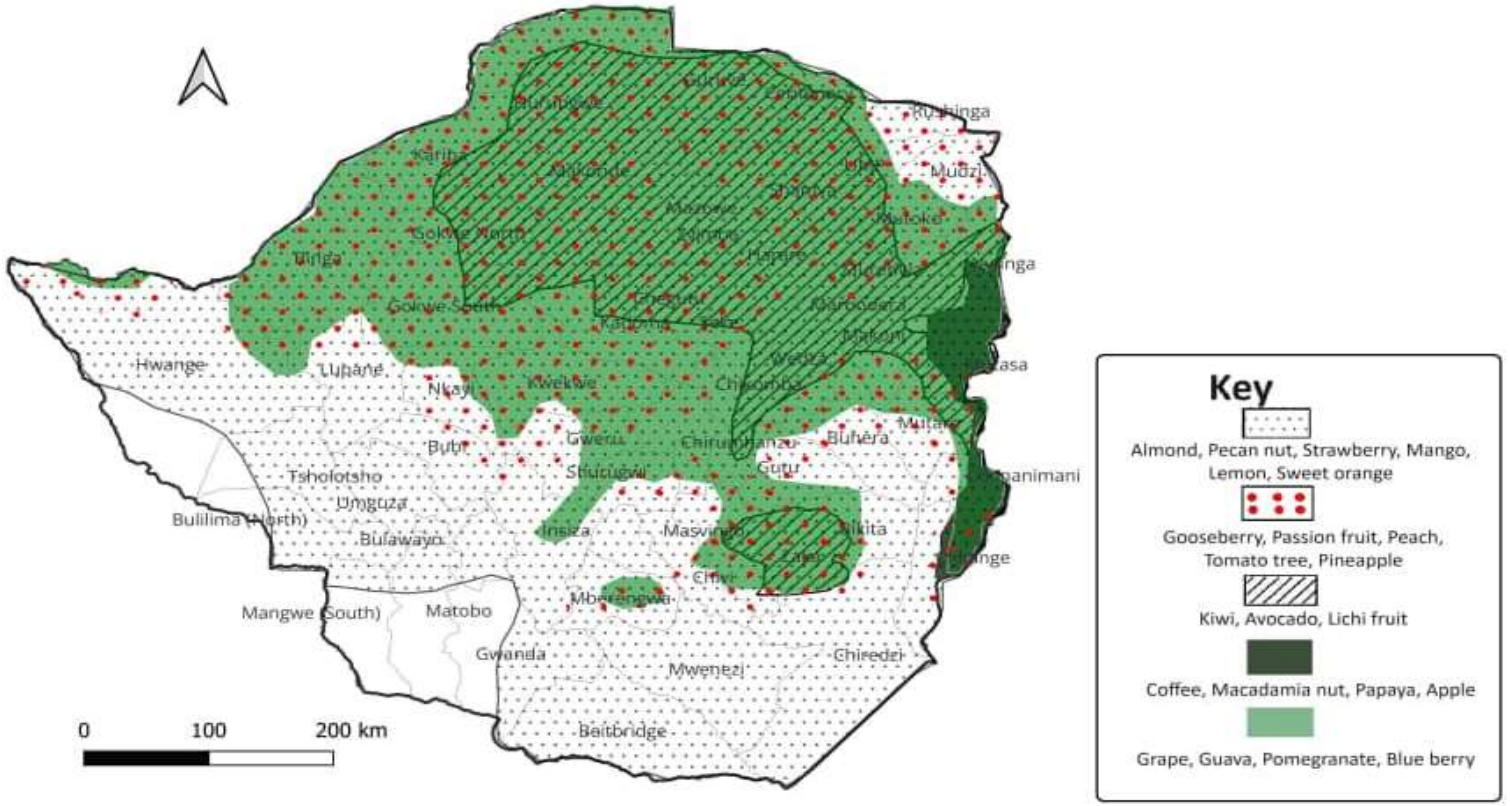
Table 2.8: Update on Development of Business Units

Province	Total no. of Business Units to be established by November 2024	Monthly BU targets	BU Daily Targets	Number of teams required per day to achieve set daily targets	Number of teams currently on the ground	Cumulative capacity tests performed	Materials delivered	Cumulative number of Business Units Established in region 4&5	Total Business Units Established	Total villages in Region 4& 5
Manicaland	824	103	4	8	1 cap test and 7 installation teams	85 (61successful)	25 solar panels,10 tank stands,5 pressure tanks	15	52	2,822
Mash East	1240	155	5	10	7 cap test and 7 installation teams	76 (61 successful)	Materials for 6 gardens	10	30	4,244
Masvingo	2544	318	11	22	6 cap test and 7 installation teams	347 (245 successful)	5 incomplete sets	10	29	8,692

Harare	48	6	1	2	2 cap test and 0 installation teams	14 (all successful)	Materials at the contractor's workshop	0	5	0
Bulawayo	152	19	1	2	0 cap test and 1 installation teams	1 (successful)	None	0	1	50
Mash Central	976	122	5	10	1 cap test and 0 installation teams	83 (48 successful)	Materials for 5 sites	18	33	3,335
Midlands	1856	232	9	18	0 cap test and 7 installation teams	87 (45 successful)	Materials for 50 sites	9	34	6,342
Mash West	1200	150	6	12	3 cap test,0 installation	56(25 successful)	Tanks and tank stands for 7 sites	10	14	4,102
Mat South	712	89	3	6	0	18(11successful)	45 solar panels,15 tanks	10	10	2,418
Mat North	936	117	4	8	2 cap test and 7 installation teams	38(24 successful)	135 solar panels, 6 tank stands,2 tanks	26	26	3,205

Total	**10,488**	**1,311**	**49**	**98**	**22 cap test and 36 installation teams**	**805 (535 successful)**		**108**	**234**	**35,210**

Fig 1: Agro-ecological zoning for selected fruit trees for Zimbabwe



The Horticulture Recovery and Growth Plan targets 18 million trees to be distributed at 10 trees per household to 1.8 million households. The programme managed to distribute 50 000 trees.

Table 2.9: Horticulture Mitigation and Resilience Strategies and Measures

	Search and Rescue		Mitigation		Resilience	
Horticulture	• Annual Horticultural crops production registered a 13% increase, but there was a decrease in tea and pea production. • 25% percent achievement in the distribution of fruit trees, 65% for sweet potato virus free vines and 40% for vegetable combos.	$ 1, 250 000	• 229 of targeted 10 000 Business Units by November established • 1 912 ha of 6710 ha of potatoes established • 1,294,000 sweet potato virus free elite vines distributed to 72 520 farmers • To date 50 000 trees distributed • To date 1 329 128 of 3.5 million vegetable packs distributed	$150, 000,000	• To create an opportunity for micro-financing VBUs, YBUs and SBUs. • Target to establish 35 000 VBUs, 4 800 YBUs, 9 600 SBUs. • Establishment of 1620 wards, 60 district and 8 provincial and one national Aggregation and value addition Centres • Distribution of 18 000 000 fruit trees to 1 800 000 farmers at 10 fruit trees per household. • Distribution of 90 million virus free sweet potato vines to 1.8	$ 250, 000, 000 $405 000, 000

	Search and Rescue		Mitigation		Resilience	
					million rural households • Capacitation of Institutions, workers and farmers • Enhanced Coordination	

2.3. LIVESTOCK

Table 2.10: National beef cattle herd composition by province in 2024

Province	Bulls	Cows	Heifers	Oxen	Steers	Calves	Total
Manicaland	49,191	250,564	109,019	84,056	44,564	106,560	643,954
Mash Central	24,794	186,472	82,110	59,857	46,160	74,381	473,774
Mashonaland East	43,162	276,944	132,949	40,825	72,101	113,605	679,586
Mashonaland West	23,899	213,895	100,948	39,982	59,940	99,792	538,456
Matabeleland North	35,677	293,529	132,194	68,360	68,302	128,723	726,786
Matabeleland South	23,749	282,211	124,247	41,095	77,335	141,018	689,654
Midlands	53,410	375,326	183,319	96,659	98,926	163,604	971,244
Masvingo	59,498	377,169	190,967	96,547	104,512	166,375	995,069
Total	313,379	2,256,110	1,055,753	527,382	571,840	994,059	5,718,523

- Breeding herd (bulls, cows and heifers) constitute 63% of the national head

Table 2.11: National Grazing and Water Adequacy by District

	0 – 3 months	Total number of cattle at risk	4 – 8 months	Total number of cattle	9 months+	Total number of cattle	Grant Total
Grazing Adequacy	Gwanda, Mwenezi, Mberengwa, Insiza, Beitbridge, Matobo, Bulilima, Mangwe, Umzingwane, Umguza, Bubi, Tsholotsho, Nkayi, Lupane, Binga, Gokwe North, Gokwe South, Mbire, Mt Darwin, Mudzi, Rushinga, Buhera, Mutare, Chipinge, Chiredzi, Mwenezi	2 683 997	Chirumanzu, Masvingo, Gweru, Zaka, Chivi,Chikomba, Shurugwi,Seke, Makoni, Nyanga, Kwekwe	1 284 533	Makonde, Shamva, Bindura, Zvimba, Muzarabani, Mazowe, Mutoko, Murehwa	521 024	4 489 554
Water Adequacy	Chirumhanzu, parts of Kwekwe, Mberengwa, Gokwe South and North (Midlands),	3 481 119	Parts of Mhondoro-Ngezi, Chirumhanzu, Zaka, Chivi,	667 018	Chipinge, Mazowe, Makonde, Murehwa, Centenary, Mtoko,	473 681	4 621 818

	Mwenezi, Chiredzi, Zaka, parts of Gutu, Bikita and Masvingo (Masvingo), Chipinge South, Mutare and Buhera (Manicaland), Mudzi, parts of Seke, UMP, parts of Murehwa and Mutoko (Mash East), Mbire, Mt Darwin and Rushinga (Mash Central), Kariba, Sanyati and Mhondoro-Ngezi (Mash West), finally all Matabeleland North and South districts.		Chikomba, Norton, Chegutu, Makoni, Mudzi, Rushinga, Mt Darwin, Kariba		Zvimba, Kwekwe, Gwanda		

Table2.12: The summary of water and pasture shortage as indicated in Table xx

	Grazing Adequacy		Water Adequacy	
Months	**Number of Cattle**	**Percentage of cattle(%)**	**Number of Cattle**	**Percentage of cattle(%)**
0-3 months	2 683 997	47%	3 481 119	61%
4-8 Months	1 284 533	22%	667 018	13%
9 months plus	521 024	9%	473 681	8%
Total	4 489 554	78%	4 621 818	82 %

The focus of mitigation and resilience measures will be, sequentially, for category 0-3 months, and 4-8 months.

Table 2.13: Presidential Poultry Scheme update as at 23 May 2024

Province/District	Number of chicks Distributed			Total Distributed
	2022	2023	2024	
Manicaland	32,000	75,458	13,570	199,175
Mashonaland Central	39,003	71,325	31,300	123,898
Mashonaland East	63,976	249,958	41,819	345,234
Mashonaland West	66,532	57,316	31,600	165,667
Masvingo	46,210	77,607	48,137	136,417
Matabeleland North	31,668	62,836	17,540	142,641

Matabeleland South	25,550	57,628	20,000	100,718
Midlands	23,964	72,523	23,531	116,487
Harare	28,291	49,260	91,717	101.082
Bulawayo	11,137	34,211	0	45 348
Total	**368,331**	**789,122**	**319,214**	**1,476,667**

Table 2.14: Presidential Goat Scheme Update as at 23 May 2024

Province	**Goats Distributed**			**Total Distributed**
	2022	**2023**	**2024**	
Manicaland	2,467	400		2,867
Mash Central	194	0		194
Mash East	555	400		955
Mash West	532	0		532
Mat North	174	360		534
Mat South	149	0		149
Midlands	390	1,000		1,390
Masvingo	250	98	25	373
Total	**4,639**	**2,258**	**25**	**6,922**

Table 2.15: Livestock Mitigation and Resilience Strategies and Measures

	Search and Rescue		Mitigation		Resilience	
Livestock	From CLAFA 2 the El Nino-induced drought caused a loss of 9,941 cattle at the start of the 2023/24 season and 47% of the rural wards will face grazing shortage starting July 2024 and 76% of the wards will face water challenges for livestock use, some 2 000 000 cattle are at risk of water and feed challenges. Only 35%. 35% of the livestock face starvation while the rest of the national herd is affected by poor nutrition. They will loose condition,	$ 1,500, 000	• Private sector to import 400 000 MT requirement for feed production for livestock • Construction of 16 20 Water Troughs in 1620 rural wards • Hay supply:1 464 756 bales have been produced to date • The government hay baling programme has produced 2 184 bales, while private sector hay bales total is 1 464 576. However, private hay bales are for individual farm use and not much is yet available for national use. • 1 164 350 beef heard in Matabeleland North, Matabeleland South,	$136 700 000	• Livestock Collateralization (insurance) • Increased Forage and Fodder production • 1000 Dip Tanks to be rehabilitated of 4 183, to bring all dip tanks to functionality • Procure 20 new hay baling sets, cumulatively 32 sets, 27 new tractors, cumulatively 32 tractors • Conduct national AI breed improvement	S35 392 000

	Search and Rescue		Mitigation		Resilience	
	thereby affecting productivity. ● The total Dairy herd stands at 60,398 ● Poultry 23 million ● Pigs 339 644		Midlands and Masvingo provinces require 5,6 million hay bales (15 kg each per day) from July to November. The animals will be given 15kg of hay each together with other sources such as grazing and survival meal. ● Hay requirement is 15kg/day x 208 days x 1 164 350 translating to 242 184 800 hay bales. ● To supplement the hay supplementary feed is required at 2kg/day x 208 days x 1 164 350 animals translating to 484 370 MT of feed ● However, a wide range of strategies will be used and some animals will be relocated to relief		programme on 100 000 cows/heifers annually with indigenous breeds ● Enhance veld reclamation and rehabilitation ● Facilitate training in fodder production and preservation ● Accelerate distribution of 18 million indigenous chickens and 1.8 million goats under the Presidential Poultry and Goat Schemes ● Accelerate resuscitation of	

	Search and Rescue		Mitigation		Resilience	
			grazing areas as DVS issues new guidelines on 1 June 2024. ● A total of 5 lorries per Province will be required to move hay bales to needy areas. ● Limited cattle translocation to relief grazing areas based on Veterinary Services monitoring for disease. ● Suspension of 15% VAT on abattoir slaughters to encourage formal selling, and firming of prices ● Enhanced Veld Fire Management through establishment of local/village Committees		CSC for feed-lotting and marketing ● Capacitation of Institutions, workers and farmers ● Enhanced Coordination	

	Search and Rescue		Mitigation		Resilience	
			• Ward-based feedlot establishment in needy areas, around VBUs • Household feed formulation • Survival Feeding of 2 299 283 vulnerable cattle for 6 months • Decentralized Livestock Marketing to ward feedlots • 8899 MT of maize unfit for human consumption at GMB to be used as feed • Enhance disease surveillance • Enhance disease resilience • Engage with Ministry of Local Government and Public Works and Rural Districts for possible downward review of livestock levy		

2.4. FISHERIES

Table 2.16: Dams Stocked by Province in 2023

Province	Number of Dams	Number of Fingerlings
Mashonaland Central	13	100,000
Mashonaland East	6	38,000
Mashonaland West	8	60,000
Matabeleland North	6	-
Matabeleland South	5	4,000
Manicaland	-	-
Midlands	6	50,000
Masvingo	15	43,000
Total	**59**	**465,000**

Table 2.17: Fingerlings Production: Government Breeding Sites Update

Breeding Site(Fisheries Unit)	Percent Progress %	Potential Fingerling Production annually
Henderson	25%	4,425,000
Makoholi	15%	2,700,000
Matopos	1%	2,700,000

Bubi-Lupane	0%	2,700,000
Chipinge (Coffee) Research Institute	0%	2,700,000
Total	**41%**	**15,225,000**

***Breeding Site Requirements to produce 60% of annual fingerling requirements**

Table 2.18: Fingerlings Production 2024 (Private and Government)

Hatchery	**Province**	**Number of Fingerlings**
Lake Harvest	Mashonaland West	9,280,268
Kariba Bream Farm	Mashonaland West	210,500
Radco	Mashonaland Central	1,712,776
Henderson	Mashonaland Central	70,000
Toppick	Matebeleland South	84,000
Jayrop	Mashonaland East	126,500
Spring Glory	Manicaland	65,000
Hatchpro Hatcheries	Harare	42,000
Totals		**11,591,044**

Table 2.19: Dams Stocked and Expected Yield

Year	2023	2024		2025	
	Stocked	Stocked	Target	Stocked	Target
Target Number of Dams	34	24	50	-	50
Number of fingerlings required	295,000	160,000	500,000	-	500,000
Expected Tonnage (MT)	35.4	19.2	60	-	60

Table 2.20: Fisheries Stocking Targets for Business Units

Year	2024	2025	2026	2027	2028	2029	2030	Total
VBU	5,000	6,000	8,500	8,500	4,000	2,000	1,000	35,000
SBU	500	600	1,000	1,100	600	500	500	4,800
YBU	300	600	500	800	1,000	1,000	600	4,800
VTC	5	6	6	7	7	7	7	45
Total ponds	5,805	7,206	10,006	10,407	5,607	3,507	2,107	44,645
Number of fingerlings	11,610,000	14,412,000	20,012,000	20,814,000	11,214,000	7,014,000	4,214,000	89,290,000

Calculated assuming all ponds are 20m by 10m. Each pond will require 2 000 fingerlings. The total number of fingerlings for Business Unit stocking is 89,290,000. Commercial cage fishing will be promoted as a business on 134 dams.

Table 2.21: Fisheries Business Units Stocked to date

PROVINCE	VBUs	Number of fingerlings	YBUs	Number of fingerlings	SBUs	Number of fingerlings	Total Number of Fingerlings	Expected Tonnage (MT)
Manicaland	182	786,000	27	20,000	3	4,000	810,000	194.4
Mashonaland East	235	967,000	0	0	0	0	967,000	232.08
Mashonaland Central	67	207,000	0	0	2	2,000	209,000	50.16
Mashonaland West	114	703,000	0	0	5	15,000	718,000	172.32
Masvingo	110	672,500	3	14,000	4	12,000	698,500	167.64
Midlands	53	288,500	0	0	0	0	288,500	69.24
Matabeleland North	103	398,000	0	0	0	0	398,000	95.52
Matabeleland South	109	335,000	0	0	1	1,000	336,000	80.64
Total	973	4,357,000	30	34,000	15	34,000	4,425,000	1,062

Table 2.22: Fisheries Mitigation and Resilience Strategies and Responses

	Search and Rescue		Mitigation		Resilience	
Fisheries	• 109 of 157 established VBUs stocked, 69 % • 58 of 10 600 dams stocked	$ 1, 250,000	• 20 000 fish ponds on 10 000 VBUs by November 2024	$ 300 000	• 70 000 fish ponds in 35 000 VBUs, 96 00 fish ponds on 4800 YBUs, and 19200 fish ponds in 9600 SBUs • 1200 dams stocked by 2025 • Commercial production on 50 dams • Annual Tillapia production of 60 000 MT • Expand government production to 60% of annual fingerling requirement • Localization of feed production • Capacitation of Institutions, workers and farmers • Enhanced Coordination	$ 500 000 $127 000

2.5. WATER RESOURCES AND IRRIGATION DEVELOPMENT

Zimbabwe is endowed with good water resources, with a total of 10600 dams in the country, with a potential to irrigate over 2,000,000ha. The country has about 233,000ha equipped with irrigation infrastructure and currently 219,000ha of the equipped infrastructure is currently functional. The country had targeted 350,000ha between 2021 and 2025 when the Accelerated Irrigation Rehabilitation and Development Plan was launched.

Furthermore, Zimbabwe has a potential to store 47.3 billion m^3 water with a total potential 10% yield of 14.6 Billion m^3. Currently only 22.4% (10.6 billion m^3) of this is stored in existing dams. Approximately **80%** of the developed volume is for agricultural use. The potential irrigable area using potential dams is currently at **1 460,000 ha** (at 8 ML/Ha/year). If we then tape into transboundary waters of the Zambezi river around Mlibizi and Kanyemba areas an additional 450 000 ha can be irrigated. This gives us the 2 million potential irrigable area.

Table 2. 23: Progress with dam construction as at 15 May 2023

Dam	Percentage Completion
Kunzvi	48%,
Semwa	32%
Tuli Manyange	34%
Gwayi Shangani	70.2%
Bindura	38%
Dande dam and Tunnel	20% & 8% respectively (to be redesigned)
Mbada	13%

Dam	Percentage Completion
Ziminya	29.5%
Vungu	15.3%
Defe Dopota	6.1

Table 2.24: Water availability in Major Dam as at 23 May 2024

PROVINCE	TOTAL CAPACITY (10^6M^3)	PRESENT CAPACITY (10^6M^3)	% FULL AS AT 23/05/2024	% CHANGE SINCE 16/05/2024
Bulawayo	6.4	5.0	78.9	-2.4
Harare	12.4	9.0	72.8	-7.2
Manicaland	717.7	537.4	76.2	-0.9
Mashonaland Central	235.7	198.5	84.2	-0.5
Mashonaland East	120.2	86.7	72.1	-4.8
Mashonaland West	1380.0	1201.5	87.1	0.7
Masvingo	4322.6	3431.7	79.2	-0.5
Matabeleland North	85.4	40.5	47.5	-0.9
Matabeleland South	727.5	325.9	44.8	-0.7
Midlands	519.8	315.0	60.6	-1.3
TOTALS	**8127.8**	**6151.2**	**75.7**	**-0.5**

Table 2. 25: Developed Irrigation Area: 1980 to 2024

Year	Area (Ha)	Annual Average(ha/year) added
1980	150000	3000
2019	169000	2400
2024	217000	9600

There has been a fourfold increase in the annual area developed since 2020, when the Accelerated Irrigation Rehabilitation and Development Plan was launched.

Table 2.26: Accelerated Irrigation Rehabilitation and Development Plan (Targets vs Achievement)

Year	Cumulative Developed Area (Ha)	Year on Year Development (Ha)						
		PSIP		Donors		Private Sector		Total Annual Achieved
		Annual Target	Achieved	Annual Target	Achieved	Annual Target	Achieved	
2020	171000	1000	550	1000	650	3000	800	2000
2021	175000	12400	1200	1500	800	12000	2000	4000

2022	193000	12400	1500	2000	2500	12000	14000	18000
2023	203000	12400	900	2000	2100	12000	7000	10000
2024	217000	12400	846	2000	1255	12000	11899	14000
		50600	**4996**	**8500**	**7305**	**51000**	**35699**	**48000**

Future Projections for Irrigation Development					
Year	**Cumulative Developed Area (Ha)**	**Government**	**Development Partners**	**Private Sector**	**Total**
2024	238026	7710	1316	12000	21026
2025	258177	17000	4151	20000	41151
2026	299328	19000	5200	25000	49200
2027	348528	19000	5200	25000	49200
2028	397728	19000	5200	25000	49200
2029	446928	19000	5200	25000	49200
2030	496128	19000	5200	25000	49200

The area to be developed is 496 000 ha made up as current developed 219 000 ha, and 275 000 ha additional summer area to bring the cumulative available area for summer irrigation from the current 75 000 ha to 350 000.

Table 2.27: Irrigation Requirements Categories

STRATEGY	APPROXIMATE AREA (HA)	AREA ACHIEVED (HA)		% ACHIEVEMENT TO DATE
Blitz rehabilitation of the non-functional schemes and water sources	45,000	Government	4,950	11
		Development Partners	7,200	16
		Private Sector	16,650	37
			28,800	
Expansion of the existing irrigation network targeting areas with potential for further development and with under-utilised water bodies	83,647	Government		nil
		Development Partners		nil
		Private Sector		nil
Development of irrigation systems at on-going dam projects	81,603	Government		nil
		Development Partners		nil
		Private Sector		nil

Increased utilisation of the groundwater resources and trans-boundary river systems for irrigation	39,500	Government	1,185	3
		Development Partners	1,975	5
		Private Sector	5,135	13
			8,295	
Subtotal	249,750	Government	99,900	46
		Development Partners	34,965	16
		Private Sector	82,417	38
			217,282	
Existing developed area for cereals	141,000	Government	28,200	20
		Development Partners	12,690	9
		Private Sector	100,110	71
			141,000	

Government formed the Irrigation Development Alliance in 2021, to rally support, to create and enabling policy environment, and to mobilise private sector resources for accelerated irrigation development. The Pedstock and Valley Schemes aim to unlock USD 200 million ahead of the Irrigation Investment Conference for resources to irrigate at least 43 000 ha by 2026. Other schemes may unlock over USD 300 million. Some 133 00 ha is targeted by all the schemes.

Table 2.28: Irrigation Development Alliance Update

Name of Facility	Value (USD million)	Financier	Area (Ha)	Progress to-date	Required Action
Pedstock/Munda Wedu	50	Chamsa	20 000	Revised term sheet from HOMT Espana submitted to MOFED for review.	Lead partners (HOMT ESPANA) have proposed to schedule final negotiations meeting on the 27th of May 2024, in Zimbabwe. Preparations underway
Valley	172	Valley	23 000	Valley working with Banc ABC	Valley USA are working on a grand offer of turnkey supply delivery and installation of 20 000ha worth of equipment. The offer has been sent for final approval by their Company Board. Meanwhile Valley Zimbabwe are finalizing an interim offer to pilot the grand proposal.

Name of Facility	Value (USD million)	Financier	Area (Ha)	Progress to-date	Required Action
Zimmatic	76	Zimmatic	20 000	Term sheet submitted to Ministry of Finance for review.	MOFED is still reviewing the offer. However, indications are that treasury is already burdened with other commitments to agriculture such that it would be amenable if the Zimmatic proposal was for a loan facility to government.
Kirloskar	50	India Exim	10,000	Kirloskar team was in the country early February and signed an MOU with the Ministry.	Engagement with ZINWA, ARDA, DOI and AFC to unlock the facility.
WAPCOS	100	Grant aid & Commerce loans	20,000	MOU to be tabled before the Cabinet Committee on Legal Affairs	To follow up with Attorney General's office
Zimplow	100		20,000	Proposal submitted to Ministry of Finance for review	To follow up with MOFED.

Name of Facility	Value (USD million)	Financier	Area (Ha)	Progress to-date	Required Action
AIC	50	Saudi Export Bank	20,000	AIC team had an introductory meeting with the Ministry in February 2024.	The Ministry provided AIC with a provisional list of projects to be considered under the facility. AIC is expected to submit a detailed term sheet for review.

The designation of ARDA as the food, feed, oils and seed security agent for the nation will require substantial investment in its estates to unlock further irrigation potential.

Table 2.29: Potential Arable and Irrigable Hectarage – ARDA Managed Estates (Excluding Estates under Partnerships)

Number	Estate	Water Source	Province	District	Gross Area After Land Reform [(Ha)	Potential Arable Area (Ha)	Current Area Under Irrigation (Ha)	Capacity Utilisation	Hectarage Immediately Available For Irrigation Development (Ha)
1	`	Osborne	Manicaland	Chimanimani	80	80	0	0%	80
2	DDP Nyarungu	Borehole	Mashonaland East	Chitungwiza	40	11	0	0%	11
3	Mbuya Nehanda (DP)	Claw Dam	Mashonaland West	Kadoma	9,591	3,850	240	8%	3,034
4	Kairezi	Kairezi River	Manicaland	Nyanga	3,000	300	0	0%	200
5	Magudu	Tugwi-Mukosi	Masvingo	Chiredzi	4,000	3,200	0	0%	3,200

6	Mushangwe	Safari Dam	Mashonaland East	Marondera	100	80	30	43%	70
7	Muzarabani	Musengezi River	Mashonaland Central	Muzarabani	580	560	90	16%	560
8	Rusitu	Rusitu River	Manicaland	Chipinge	1,700	250	0	0%	150
9	Tendele	Borehole	Matabeleland North	Umguza	78	68	0	0%	55
10	Bbulaayo Kraal	Zambezi River	Matabeleland North	Binga	15,000	5,000	100	2%	5000
11	Umguza Plot	Umguza River	Matebeleland North	Umguza	20	20	20	100%	20
12	Kanyemba	Zambezi River	Mashonaland Central	Mbire	2,000	1,800	0	0%	1,500
	GRAND TOTAL				**36,189**	**15,219**	**480**		**13,880**

Only 3.5% percent of the area is under irrigation

Table 2.30: ARDA Annual Production Trends

Year	Total Area Established (Ha)	Irrigated Production (Ha)	Dryland Production (Ha)	Total Cereal Output (MT)
2020/21	1,102	1,102	-	3,747
2021/22	23,124	20,513	2,611	96,028
2022/23	27,808	23,613	4,195	167,934
2023/24	50,431	33,755	16,676	Projected 473,776

Table 2.31: ARDA Production by Segment Summer 2023/2024

SEGMENT	NUMBER OF FARMERS	AREA (Ha)	CROP VOLUME (MT)
Estates	10	2,312	9,561
Irrigation Schemes	32,900	14,162	42,486
A1/A2 Joint Ventures	13,301	38,412	98,953
GRAND TOTAL	**46,211**	**54,886**	**151,000**

Table 2.32: ARDA Expected Contribution in Future to Produce 45% of Annual National Cereal Requirement

Segment	Number of Farmers	Area (Ha)		Total Projected Crop Volume (MT)
		Summer	Winter	
Estates	15	3,500	2,505	30,025
Irrigation Schemes	47,898	26,000	20,000	230,000
Joint Ventures	58,171	130,500	37,495	839,975
GRAND TOTAL	**106,084**	**160,000**	**60,000**	**1,100,000**

Table 2.33: The financial requirement to produce 800 000MT summer crops and 300 000 MT winter cereals

Input	Quantity/Ha		Hectarage [Ha]		Total Input Quantity [MT]	Cost per Unit [USD]	Value of Inputs Required [USD]
	Summer	Winter	Summer	Winter			
Basal Fertilizer [Compound D] [MT]	0.45	0.5	160,000	60,000	102,000	$ 680.00	$ 69,360,000.00
Top Dressing [Ammonium Nitrate] [MT]	0.3	0.35	160,000	60,000	69,000	$ 720.00	$ 49,680,000.00
Diesel [L]	75	85	160,000	60,000	17,100,000	$ 1.65	$ 28,215,000.00

Seed [MT]	0.025	0.12	160,000	60,000	11,200	$ 1,850.00	$ 20,720,000.00
Herbicides and Pesticides [$]	130	152	160,000	60,000	29,920,000	$ 1.00	$ 29,920,000.00
Insurance [$]	24.375	52.2	160,000	60,000	7,032,000	$ 1.00	$ 7,032,000.00
Utility Bills (ZINWA &ZESA) [$]	220	398	160,000	60,000	59,080,000	$ 1.00	$ 59,080,000.00
Land Preparation, Planting & Harvesting [$]	180	180	160,000	60,000	39,600,000	$ 1.00	$ 39,600,000.00
Transport - Inputs & Harvested Grain [$]	45	45	160,000	60,000	9,900,000	$ 1.00	$ 9,900,000.00
GRAND TOTAL [$]							**$ 313,507,000.00**

Table 2.34: Water Mitigation and Resilience Strategies and Measures

	Search and Rescue		Mitigation		Resilience	
Presidential Rural Development Programme	2,890 of target of 35,000 boreholes drilled, 28 of target of 100 rigs procured	$100,000	• Procure balance of 12 rigs on the old running contract • Procure additional 60 rigs to improve drilling capacity (20 for RIDA) • 10,000 boreholes in 10,000 Villages • Establish 10,000 Village Business Units. • 4800 of schools with YBUs	$ 3,000,000 $15,000,000 $250,000,000 $120,000,000	• Complete 35 000 VBUs, 9600 SBUs and 4800 YBUs, 45 VTCBUs by 2028 • Capacitation of Institutions, workers and farmers • Enhanced Coordination	$388, 000, 000
Dam Construction	12 dams under construction, and at various levels of completion 160 weirs need construction (20 per rural province)	$20 000	• Complete Kunzi and Gwayi-Shangani Dam wall by December 2024 • 160 Weir construction	$150 Million $16 Million	• Complete 10, dams by 2028 • Construct 640 weirs by 2028	$1.8 Billion $64 Million
Water Sanitation and Hygiene	• 3 of 48 towns have less than 9-month water supply, 40 have adequate water supply • 29 urban local authorities unable to	$ 500,000	• Increase access to WASH in urban areas to 98% • Increase access to WAHS in rural areas to 80%	$44,268,666.67 $62,577,894.00	• Full operationalization of the Rural WASH Information Management System (RWIMS) and the Urban WASH Information	$5 059 192

	Search and Rescue		Mitigation		Resilience	
	supply adequate water to residents • 82% access to water in urban and 78.4% in rural areas • 15% access to hygiene in urban areas, and 4% in rural areas 97.8% access to sanitation in urban areas and 61.1% access in rural areas.				Management System for early warning. • Establish Ground Water Monitoring Unit • Legislation and governance reviews to strengthen WASH sector by 2025. • Capacitation of Institutions, workers and farmers • Enhanced Coordination	

Table 2.35: Irrigation Mitigation and Resilience Strategies and Responses

	Search and Rescue		Mitigation		Resilience	
Irrigation Development	• Only 219 000 ha of 496 000 ha developed	$100,000	• Rehabilitation of 16 000ha of irrigation infrastructure under low hanging quick fix schemes • Establish additional 36 000 ha for summer irrigation by 2025	A budget of USD28 million required to be administered through an on lending facility for the quick fix schemes while an estimated USD200 million is needed to meet the additional 36 000ha with the banks	• Develop 350 000 ha irrigable for summer crops by 2028, thus an additional 275 000 ha for the current 75 000 ha available • Capacitation of Institutions, workers and farmers • Enhanced Coordination	An estimated USD1.4billion is required for the development of the 275 000ha

2.6. MECHANISATION

Table 2. 36: Tractor and Combine Numbers by Year

Year	2020	2021	2022	2023
Tractors	8 920	10 900	13 480	14 285
Combine Harvesters	210	249	303	305

The number of tractors has increased by 60% and combine harvesters by 45% since the launch of the AFSTS in 2020. Of these government schemes have contributed 41% percent of the additional tractors and 95% percent of combine harvesters.

Table 2.37: Mechanisation Development Alliance Progress

NATIONAL FARM MECHANISATION FACILITIES					
Name of Facility	**Value (USD)**	**Financier**	**Number and Type of Equipment**	**Progress to-date**	**Action**
1. John Deere	51 million	GoZ	1300 tractors,80 combine harvesters, 600 planters, 200 boom sprayers, 200 disc harrows, 100 trailers	$2million Dollars ZWL Released before ZiG. NOT YET FUNDED	Await Treasury to release the USD component.
2. Belarus 2	52 million	Belarus	1337 tractors, 16 combine harvesters, 5 disc harrows	73 tractors are yet to be distributed. Bison Agro-Machinery delivered the outstanding equipment (26 tractors & 2 disc harrows).	Massive marketing and follow-up M&E

3. Belarus 3	169.9 million	Belarus	3161 tractors, 80 combine harvesters	Contracts were signed for both tractors, combine harvesters and the GMB Silo Expansion Project.	Payment to Aftrade DMCC.
4. Bain New Holland	20 million	GoZ	700 tractors	66 Tractors delivered to Harare under 2nd tranche bringing the total to date at 127. Treasury released US$3 million for the year 2024. 28 tractors have been distributed so far.	Massive marketing and follow-up M&E

5. Local Manufacture	6 million	GoZ	All Facilities related implements & Attachments	No Significant Movement RE-TENDERING MOST FACILITIES	Re-Tender Most Facilities and Contracts
6. China Smallholder Mechanisation	104.9 million	China EXIM Bank	Tractors, implements, solar agro-processing plants, borehole kits etc.	A proposal was submitted to the Chinese Embassy and they have expressed willingness to avail USD 104 million.	Gvt to Gvt negotiations to be completed in June during H.E The President's Visit to China.

RECOMMENADTION

Cabinet is recommended to consider and approve the El Nino-induced drought mitigation strategies and measures for the agricultural sector.

Hon. Dr. A.J. Masuka

MINISTER OF LANDS, AGRICULTURE, FISHERIES, WATER AND RURAL DEVELOPMENT