HOA DRIVE, IBLI PAYOUT SUMMARY REPORT - KENYA

MARCH – JUNE 2024 SEASON

1. EXECUTIVE SUMMARY

This report covers the payouts for the Long Rains season, covering the months of March 2024 – June 2024, of the DRIVE Index Based Livestock Insurance (IBLI) product being sold in various regions of Kenya. The product's main aim is to provide cover against prolonged forage scarcity ONLY due to drought. It triggers payment to pastoralists to help maintain their livestock in the face of severe forage scarcity. The payout amount depends on the value derived from a Normalized Difference Vegetation Index (NDVI). The methodologies used for pricing and payouts are consistent across all UAIs[1].

The payout calculations have been done by ACRE Africa, in their role as the payout calculation agent, and have been internally reviewed by ZEP RE. Further, the Z-Scores[2] have been validated[3] by data service providers and validation agent, Planet. The results summary for the season are outlined below:

Table 1:Kenya Coverage and Payout Summary

Registration period	OND 2023	MAM 2024
Cover Period	1st October 2023 – 30th September 2024	1st March 2024 – 28th February 2025
Product structure	- Short rains: 1st October – 31st December 2023 - Long rains: 1st March - 30th June 2024	- Long rains: 1st March - 30th June 2024 - Short rains: 1st October – 31st December 2024
Regions covered	12 Counties – Garissa, Isiolo, Kajiado, Laikipia, Lamu, Mandera, Marsabit, Narok, Samburu, Tana River, Turkana and Wajir	12 Counties – Garissa, Isiolo, Kajiado, Laikipia, Lamu, Mandera, Marsabit, Narok, Samburu, Tana River, Turkana and Wajir
Total number of pastoralists covered	35,399	28,728
Total number of TLUs covered	111,920	87,345
Total sum insured	KSh 1,882,494,559	KSh 1,469,148,900
Total premium amount	KSh 416,312,228	KSh 319,876,256
PAYOUTS		
Total number of pastoralists receiving payouts	N/A	N/A
Total payout amount (Ksh)	N/A	N/A

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[1] UAI – Unit Area of Insurance per region as is determined based on the homogeneity of vegetation conditions and pastoral migration extents. Also, rangeland dominance, forage availability, seasonality and drought history are also considered.

[2] The z-score describes the variation in the NDVI relative to the historical time series by subtracting the average and dividing by the standard deviation of the historical NDVI readings.

The determination of payouts relies on data provided by Planet, a leader in delivering daily Earth insights through satellite imaging, which empowers organizations with a comprehensive view of our changing planet. To enhance the credibility of these figures, secondary sources on pasture conditions were incorporated to corroborate the results, adding an extra layer of validation to the process. Furthermore, the Z-Scores have undergone validation by Planet as the validation agent as well. The Z-score describes the variation in the observed vegetation index relative to the historical data by subtracting the average and dividing by the standard deviation of the historical index readings.

This report includes a term sheet that shows Z-scores and how far they are from a specified threshold, which helps determine whether there was a drought during the covered periods. A Z-score higher than the threshold means vegetation levels were healthy, so no drought occurred. A Z-score lower than the threshold indicates lower-than-expected vegetation levels, suggesting some level of drought.

2. DETAILED RESULTS

There was no payout in any of the UAIs. The total coverage for the 64,127 pastoralists covered are shown in the tables below:

Table 2: Distribution of coverage per County

REGISTERED SEASON	OND 2023				MAM 2024			
COUNTY	Total number of pastoralists covered	Total number of TLUs covered	Total premium amount (Ksh)	Total sum insured (Ksh)	Total number of pastoralists covered	Total number of TLUs covered	Total premium amount (Ksh)	Total sum insured (Ksh)
Garissa	2,464	7,445	27,993,625	125,217,500	5,346	16,152	59,201,261	271,677,755
Isiolo	4,261	14,733	57,390,371	247,808,624	2,051	6,307	23,114,041	106,078,098
Kajiado	281	1,252	4,196,416	21,061,064	2,516	9,217	36,507,601	155,034,180
Laikipia	1,592	5,223	18,385,551	87,849,418	1,593	4,738	16,906,680	79,685,354
Lamu	1,142	3,424	12,359,078	57,584,821	974	2,915	10,341,995	49,023,379
Mandera	454	1,459	5,003,493	24,540,799	742	2,091	6,932,864	35,171,952
Marsabit	2,403	8,003	27,681,216	134,608,244	1,072	3,123	11,357,623	52,534,924
Narok	160	254	1,106,775	4,267,282	128	540	2,194,986	9,081,793
Samburu	4,685	14,289	52,894,037	240,343,745	6,864	20,947	76,199,697	352,326,736
Tana River	6,093	18,585	80,812,856	312,592,257	1,733	4,608	19,885,542	77,500,415
Turkana	3,814	12,097	42,329,489	203,465,837	3,765	10,927	38,164,667	183,789,512
Wajir	7,695	24,011	82,003,803	403,869,434	1,780	5,284	18,306,579	88,879,718
Unreconciled[4]	355	1,147	4,155,517	19,285,534	164	497	762,720	8,365,084
Grand total	35,399	111,920	416,312,228	1,882,494,559	28,728	87,345	319,876,256	1,469,148,900

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[4] These are pastoralists who paid without registering their locations and are still being traced and the payout percentage is an average of all the UAIs payout percentages. Data reconciliation with the banks and the insurance companies is ongoing.

3. DROUGHT SITUATION

Most of the Arid and Semi-Arid (ASAL) counties remained classified under the 'Normal' drought phase, as the environmental, production, access, and utilization indicators monitored fell within their typical ranges, thanks to the favorable performance of the MAM 2024 rainfall season. The risks associated with wet conditions are also diminishing across these counties.

Figure 1: Drought phase classification, June 2024[5]

DROUGHT PHASE CLASSIFICATION JUNE, 2024

Vegetation conditions:[6]The month of June 2024 demonstrated a continued improvement in vegetation conditions across the Arid and Semi-Arid Counties (ASAL) compared to May 2024. This positive trend was attributed to the MAM 2024 long rains season, which was normal in most ASAL areas. None of the counties reported extreme, severe, or moderate vegetation deficits. All twenty-three (23) ASAL counties, including Samburu, Laikipia, Kajiado, Turkana, Tana River, Garissa, Narok, Isiolo, Marsabit, Wajir, Mandera, and Lamu, exhibited above-normal vegetation greenness. The condition of pasture also improved, with dense canopies observed across all areas due to favorable rainfall. The map below illustrates the vegetation progression in the ASAL areas from May 2024 to June 2024, showing a notable increase in greenness throughout these regions.

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[5] NDMA - Knowledge Web
[6] Kenya Food Security Outlook Update, July 2024 - Kenya | Relief Web

Figure 2: Comparison of vegetation conditions between May 2024 and June 2024
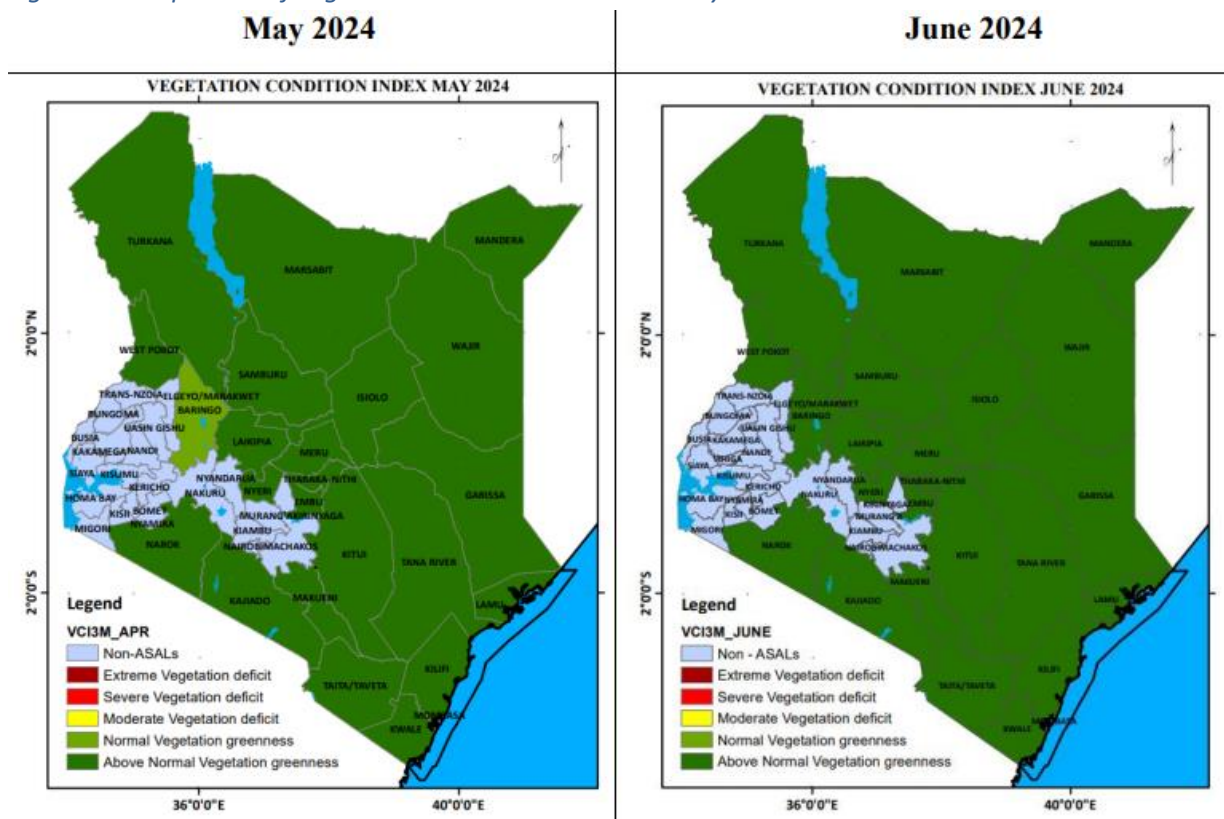
The sustained improvement in vegetation conditions through June 2024 underscored the beneficial impact of the MAM rains across the ASAL regions as evidenced by the enhanced greenness and stability.

Further, the map below shows the vegetation progression, within the East African Region, from the month of March 2024 to June 2024, with the level of greenness increasing in the arid and semi-arid lands.

Figure 3: Horn of Africa NDVI Maps (March – June 2024)

Source : https://earlywarning.usgs.gov/fews/product/900
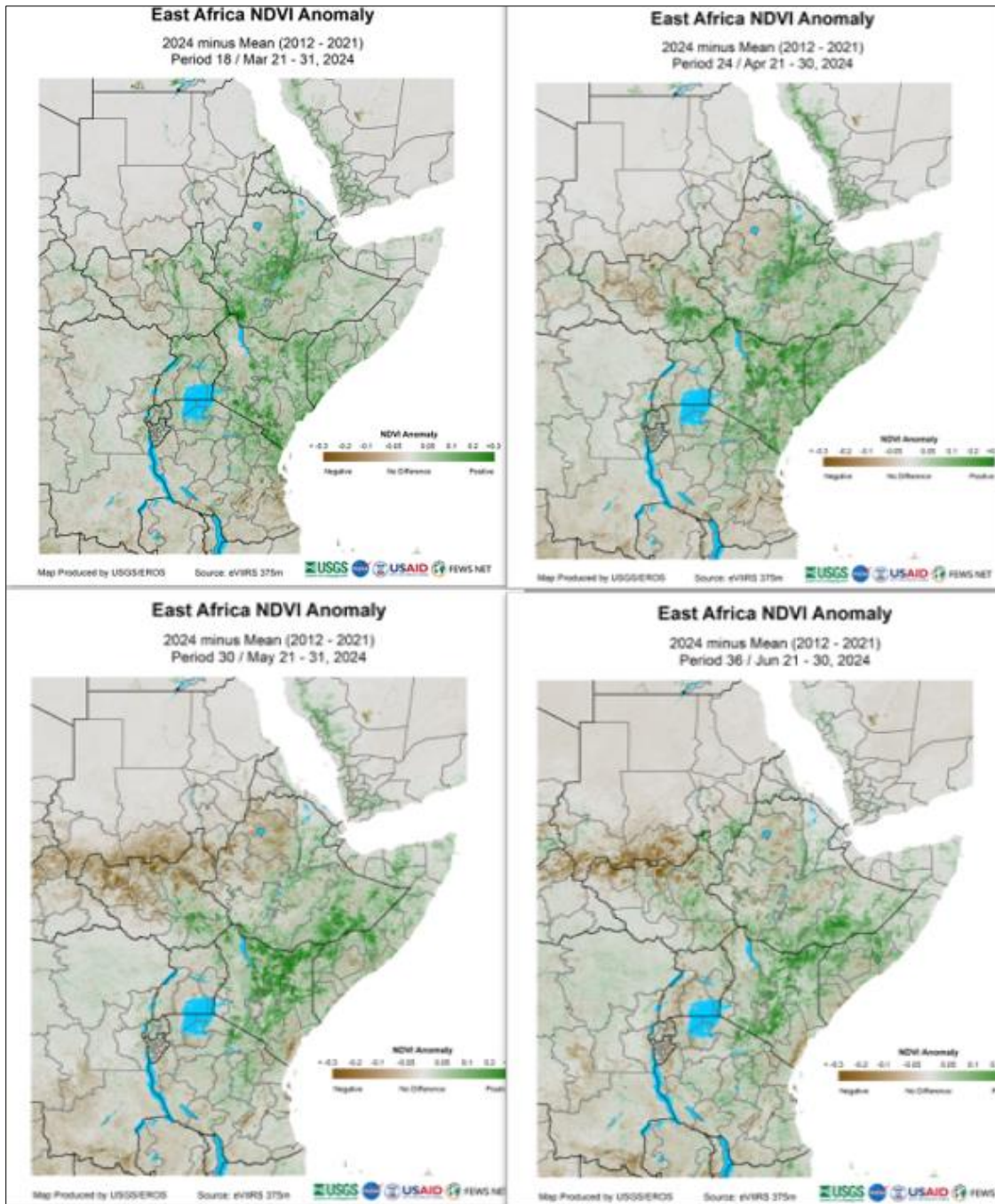
Progression of Rainfall and Flood Impacts for the March to June Season in Kenya:

The progression of rainfall and flood impacts during the March to May season in Kenya is consistent with the outcomes detailed in this report.

4. ADDITIONAL DROUGHT INITICATORS

Additional drought indicators were reviewed for the period under observation to corroborate the NDVI indicator used to calculate the Claims payout. These are:

Vegetation Anomaly

The vegetation anomaly index evaluates the health of vegetation relative to typical conditions for a given area. In the covered regions, the index was above 2, indicating extreme greenness. This high level of vegetation health was supported by near-normal rainfall and enhanced soil moisture. These favorable conditions promoted vegetation growth and reduced drought risks. Increased rainfall led to positive vegetation anomalies, with improved soil moisture creating an optimal environment for growth. This is particularly important in drought-affected areas where restoring grazing lands is vital for pastoral communities. However, in flood-prone areas, excessive water may have caused localized damage to vegetation.

Figure 4: Vegetation Anomaly for 12 Kenya IBLI Counties (March – June 2024)
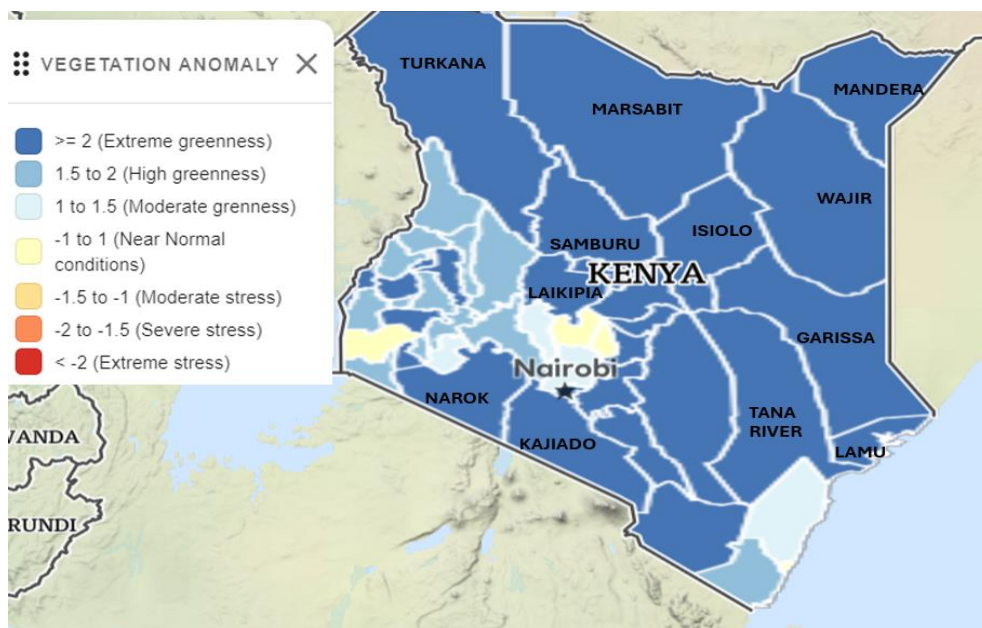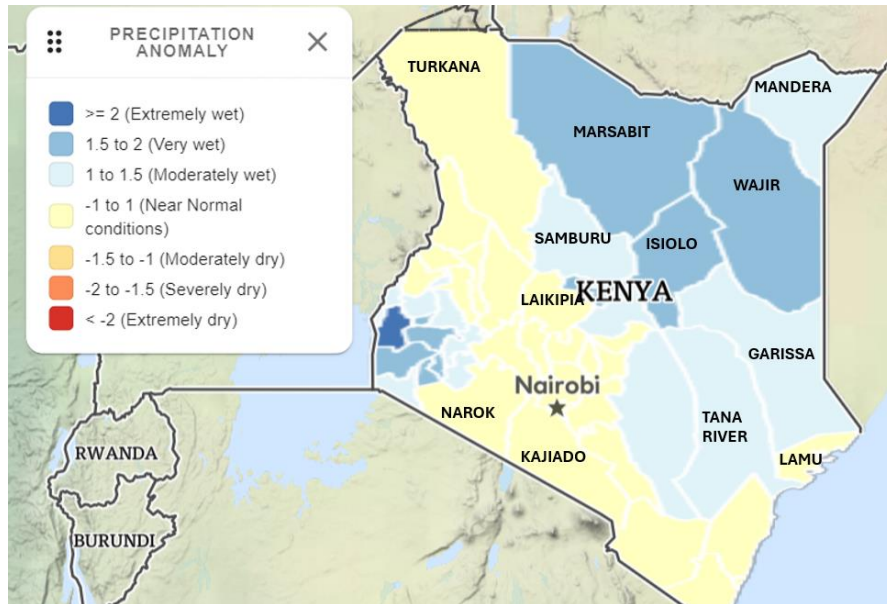

Source: NGDI Dashboard (ngdi-dashboard.azurewebsites.net)

Precipitation Anomaly

The precipitation anomaly measures how current precipitation levels deviate from the historical average for a specific area, indicating whether rainfall is significantly higher or lower than usual. The review of the precipitation anomaly index showed that the regions under cover experienced normal levels of rainfall in some areas, while others had higher levels of rainfall, surpassing the historical average. This led to wet conditions across the country, conducive for vegetation growth and consistent with the NDVI data.

*Figure 5: Precipitation Anomaly for 12 Kenya IBLI Counties (March – June 2024)*

Source: NGDI Dashboard (ngdi-dashboard.azurewebsites.net)

Soil Moisture Anomaly

The soil moisture anomaly measures how current soil moisture levels deviate from the historical average for a specific area. Values ranging from -1 to 1 indicate near-normal conditions, suggesting that soil moisture levels were close to typical expectations. The soil moisture index confirmed that increased rainfall enhanced soil moisture levels throughout Kenya, creating favorable conditions for the improvement of vegetation across the regions and contributing to overall healthy vegetation.

Figure 6: Soil Moisture Anomaly for 12 for Kenya IBLI Counties (March – June 2024)
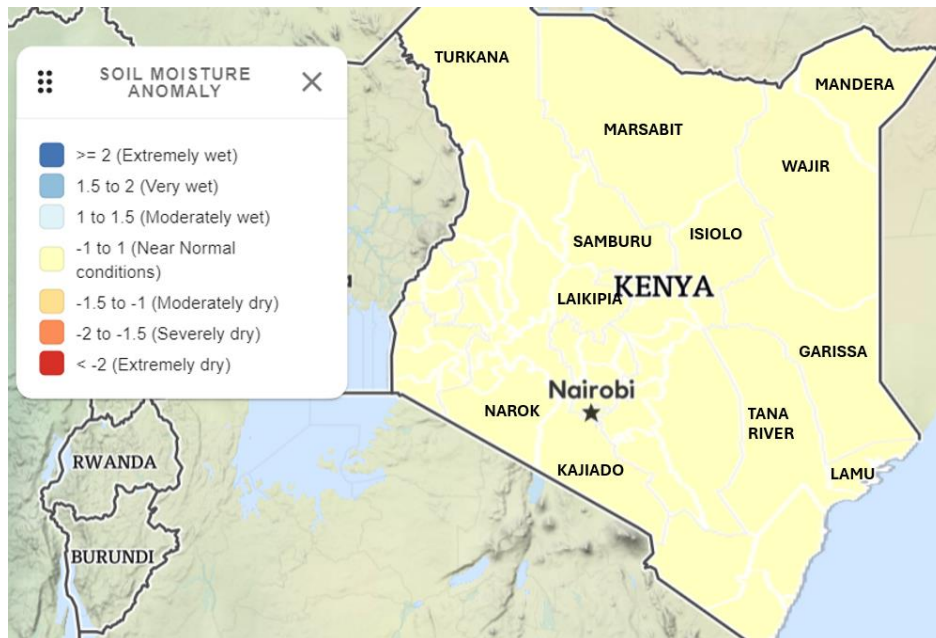
Source: NGDI Dashboard (ngdi-dashboard.azurewebsites.net)

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ANNEX TO THIS REPORT

1. Term sheet with the index.
2. Graphic showing the progression of the drought from March 2024 to June 2024 in the Horn of Africa.
3. Final Data Report from Planet.
4. Calendar timelines for payouts.