

Unyanyembe Journal, 28 January 1866 - 5 March 1872

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[0379]

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April
16th
868

Ndowa gives Mita or Mpamañkanana as the names of the excavations in Muabo's hills - He says that they are sufficient to conceal all the people of this district in case of war - I conjecture that this implies room for ten thousand people - Provisions are stored in them and a perennial rivulet runs along a whole street of them - On one occasion when the main entrance was besieged by an enemy someone who knew all the intricacies of the excavations led a party out by a secret passage and they coming over the invaders drove them off with heavy loss = their formation is universally ascribed to the Deity - this may mean that the present inhabitants have succeeded the original burrowing race which dug out many caves adjacent to Mount Kor - the "Jebel Nebi Harin" Mount of the prophet Aaron - of the Arabs, and many others and even the Bushman caves - a thousand miles South of this region

A very minute sharp biting mosquito found here the women try to drive them out of their huts by whisking bundles of green leaves all round the walls before turning into their huts -

7th

Crossed the Luao by a bridge 30 yards long, and more than half a mile of flood on each side - passed many villages standing on little heights which overlook plains filled with water - some three miles of grassy plains abreast of Moero were the deepest parts except the banks of Luao We had four hours of wading - The bottom being

generally black tenacious mud = Ruts had been formed in the paths by the feet of passengers - these were filled with soft mud and as they could not be seen the foot was often placed on the edge and when the weight came on it down it slumped into this mud half way up the calves and it was difficult to draw it out and very fatiguing - To avoid these ruts we encroached on the grass at [(contd. 16 pages on)] [0380]

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] Rainfall at the following stations 1866 -

26 Oct^r 1866 [Mapuio's] Mapusa's vil - First appearance of thunder showers passed all around but only a few drops fell -

29th A thunder shower about 3 PM - Amount of Rain + .13

3^d Nov^r Irongwe M^t Thunder shower - 4 PM - + .10

4th Nov - Irongwe M^t Thunder shower 3 - PM - + .18

9th Nov^r Kalumbi vil & Hill Thunder shower - 3 PM + .79

10th Nov Thunder showers in distance - wetted some of the men three miles off - Here a few drops only

17th Nov Kanyenje [] [valley] - vil of Kanyindula near source of the Bua among mountains [] [- with thunder] 4 PM - + .58

18th Nov [] [Do Do] accompanied with thunder 3 - PM - + .44

20 Nov Kanyinjere mponda = the source of the Bua - Noon - with thunder - 1[h] - 45[m] - + .29

- again at 4[h] - 30 + .71

24 Nov^r Zeere's village [^] at [near] source of Lokuzhwa
1 PM - Thunder shower ¼ hour - 4[2]7 + .5 + .2 = + .34 [3.55]

[30th Nov^r] The smaller rains have been Thunder showers
The people have put in their seed & in some spots it has vegetated but the land has not been thoroughly wetted - the cracks

in the rich dark loam have not been
filled up by the swelling of the soil - Some
are still two feet deep and two inches wide
at the lips - Before the rains they are to
be seen of three feet in depth and three
inches wide at the lips

[Dec^r 1866]

3^d Dec Kande's vil on R^t Lokuzhwa 4 PM with
thunder - 10 - then after 6 PM .75 == + .22

4th Katette - a spring among low hills W of
Kande's vil - [] [3 PM] very violent - thunder shower + 1.48

5th Do Bamboo vil - Noon .38 with thunder
then gently .10 == + .48

7th Mparawe mt & vil 3 PM with very
loud thunder - then gently till 6 PM + 1.10

8th Two smart showers at midnight(not
measured) 3.28

[0381]

[1866] [375
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9th Dec^r Brought forward for Dec^r [inches] 3.28
Mparawe mt & vil - thunder near - + .5

11th Forest North of Mparawe - no thunder -
a set in rain 7 AM - the first we have
had + 40

12th Forest (Mopane) [...] thunder - 2 PM + .37

13th Forest D^o 6 PM till 8 PM with thunder + .76
Note we had rolling thunder every afternoon
and sometimes it was seen to rain in distance
On 20th this was well marked & on ascending
from valley of Loangwa in which the Mopane
forest lies it had rained heavily on the North
side of the low hills Ngale or Ngalao Else
where the cracks in the soil were unfilled -

26th rain with much thunder but at the camp
on Chonanga there fell only + .3

28th Malambwe During night - + .14
and at midday + .30

29th Malambwe - Moerwas vil - a set in Rain
began at 9 AM & at 11 AM had fallen +1.25

30th Two good smart showers fell while we
were in the forest between Malambwe &
Chitemboie's place (Mokumbi) not measured)

31st In forest near Chitembo's 4 AM till day break
but gently without thunder + .+9
Rain fall in December = Inches = 1[...]-[1].67

1st January 1867 Mbulukuta - at Chitembo's vil -
Set in rain - continuous but not heavy
the clouds from the West .45

2^d Rain began yesterday in morning
before daybreak - clouds from West .4

3^d Do showers an - began an hour before daybreak
with Thunder - drizzling all day - West .81

4th Do at Midday & 10 PM - with Thunder West 1.15

5th & 6th Day & night with but little Thunder - West 1.8 [3.53]

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1867
January

Brought Forward [Rainfall] 3.53

7th Rain began at midnight - with thunder .70
Drizzling by day but we marched
from Mbulukuta - (by day not measured)

8th Began at midnight with loud thunder
Motuna's vil near Movoche R^t .77
Evening of same day .15

9th Thunder showers all round but
only a few drops fell on us marching

10th Began about 4 AM. .8
again at noon with loud thunder
& very heavy till 2 PM -1.30

11th 11th .3

12th 12 Thunder showers but none on us

13th A heavy shower which made the
paths run but we were marching
(not measured) In the night .8

14th Drenching rain set in at sunset
& continued long & heavy 1.50

17th Began about 5 AM - with thunder - .24

18th Set in Early in the morning with thunder .37

19 Began at 7 PM with thunder .48

20th With thunder at different times through the day .27

21st Continuous & gently - no thunder - morning & night .99

22^d Heavy shower - (not measured)

23^d In forest N of Lisunga with thunder
clouds now from North & North E - .57

24th Began at 5 AM with thunder .6

D^o after Sunset with thunder -
R^t Movushi near Chambeze .23

- Up to 25th Inches 11.35

Note the [] [rain] clouds on the South side of the highest part of the range which separates the Loangwa from the Chambeze valleys came generally from the West on the North side from North-Nor East & East

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[1867

Feb] **Rainfall in February 1867**

1st At Molembe vil of chitapangwa = Lobemba T. morning .10

2^d D° D° with T. (thunder) all night 1.4

3^d D° D° - T In night .14

4 D° D° - T from East 9 AM till noon .43

- T - - 3 PM .54

5th D° D° Steady pour down - 6 AM clouds from W - .63

6 D° D° night w T .10

- - - 3 PM w T .29

7th D° D° 1 PM w T. .7

8th D° D° Early morning .20

9th D° D° 1 to 2 PM - violent T storms from W - .63

10 D° D° 4 & 5 PM - violent T. storms from W .62

11. - - gently first part of night & early morning .23

12 - - gently in night .3

13 - - gently by night no rain by day .10

14 - - No rain for 24 hours - 12 hours
never passes without Thunder near or distant

15th - - by night .7

16th - - Most of the night w T. 2.42

17th - - Early morning - till noon with T .33

18th - - 3 - P-M- & frequently during night with T - 1.65

19 Total at Molembe up to morning of 19th 9.62

20th Early morning (Molembe) .66

21st 4' NW. of Molembe - 9 - PM - with loud T. & E morning .65

22 D° 2 AM with T .16

23 Merungu R^t - Noon w T .8

24 D° - no rain here but thunder all around

25th Merenge Rt. no rain in camp but heavy
shower in village 200 yds distant

26th Merenge R^t - In night - gently .13

27 D° D° in night - D° .8

28th Noon T - .13

[...] during night of same T - .14

- Rainfall in February in Lobemba = 11.65

[0384]

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Rainfall in March

1st March 1867 River Loombe evening & night w T .92

3^d 1 PM T & early part of night T .75

4th 4th no rain

5 D° D°

6th morning gentle shower during
night considerable rain but it must
have been spilt as rain gauge shewed only .8

7th no rain

8th 2 & 3 PM - T. .85

9th 10 & at Noon w loud T 1.37

11th Noon T very loud & heavy rain 1.11

12th 7 AM gently .40

18th shower w T only wet the ground

21st Kasouso's village 4 PM T & at night. 43

[^ 24th] T .26

27 1 PM - T & at night. 45

4 April Lake Liemba T. .27

7th Early morning gentle rain 1.54

9th with T. .32

12th Early morning T 22
a shower fell later but did not —
wet the soil -8.97

- Total rainfall in March and part of April - all agreed beforehand that the rains would cease in April
- Part of October & November 3.55
- December 6.67
- January 11.55
- February 11.65
- March & part of April 8.97
- Total Rain fall in 1866-7 - === 42.39

Oct - Nov - Dec^r 10.22 or ¼ while - was going South.
Jan - Feb - March & April 32.17 ¾ - coming North
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Rainfall in 1867-8

18671st Oct^r Kamosenga R^t = Lopere - clouded all over - thunder
in distance - a few drops of rain fell - this was the
first since 12th May

2^d vil of Karungu - in Lopere - Thunder in distance
and probably showers

3^d D^o. 4 AM - T - slight shower not enough to lay dust
3 PM a few heavy drops

4th D^o T. in NNW. clouded over - clouds - lower stratum
from N - Upper stratum from S - when they meet turn
round & round [five arrows delineating a spiral motion] 4.30 PM a shower T..27

5th T. early morning & 11 AM to 4 PM -.47

6th gentle rain during night -.4

~~22^d~~ Thundering often all around but only a few drops of rain fell - not enough to wet the soil - this from 6th but on the

22^d 2 PM T. laid the dust

24 3 PM .3

27 Moving in Lopere gentle drizzling shower .7

29th T 3 PM - Choma R. .22

- Rain fall in October 1867 in Lopere === 1.10

November 1867.

[1867 1st] gentle shower = .7

3^d R^t Luao 2 - AM - T - .30

7th Kabuire 6 AM T - .18

8th Lake Moero - chiputa's vil. T - .8

9th D^o D^o 4 AM .10

11th D^o D^o .12

13th R - Kalongosi 7 AM - & 1 PM - T the first really heavy shower - Rain will turn now from partial to general .78

15th Casembe's country 2 AM T - much .58

- D^o drizzling forenoon .8

16th D^o night .22

17th D^o 6 PM & night 1.44

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[Turn over]
[0386]

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1867 Brought forward - Rain fall in November up to 17th
November 3.95

19th R^t Chungu - Noon till 4 PM T. .90

21st R^t Lunde 7 AM T. 15

26th Town of Casembe on Lakelet Mofwe 3 PM T - .7

27th D^o 7 AM T. .36

29th D^o 2-6 AM T. 2.53

30th D^o 5 PM T. .23

- Total rain fall in November 8.19

December 1867.

1st Casembe's town on Mofwe 11 AM T from E .93

6th D^o 4 to 5 PM - T. .40

8th D^o evening & night (gently) .25

10th D^o morning T. .4

12th D^o night before T .9

D^o D^o noon T. .8 D^o D^o 4 to 5 PM .53 = .61

13th D^o 6 - 9 AM .29

14th D^o during night T - .29

15th D° D° night T - from W - .16

16th D° D° night T. 6 AM to 12 - 1.63

D° D° 5 - 6 PM from W - T. .81

18th D° 8 to 10 AM T. from N - .39

20th D° 3 & 4 PM T - N - .66

D° D° 5 - 7 PM T W - .89

24th Chungu R^t - night T. .34

D° D° drizzling showers T - .9

25th D° morning T. .5

27th Mandapala R^t 3 - 5 PM T. .33

31st R^t Kabukwa 3 - 5 PM T. .93

9.18

- Many showers fall which keep the soil wet but shew nothing in the measure total rain fall in Dec^r in Casembe's country 9[in].18

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Rainfall in January 1868

3 Jany at Kifurwa R^t - Kasembe's country 2 PM T. .8

4th night T - 1.58

5th night T. 1.25

10th Karembwe's Moero - night T. 1.14

12th D° early night & morning W - T and noon 4.12

13 D° night .69

14th Raining all day on Rua M^{ts} but drizzling showers
only on the East of Moero -

1st at Kabwakwa village on Kakoma Rt -
4 - 5 PM - E - T - and night.84

22nd D° night E - T..5

29th D° 3-30 PM to 5 PM E - T. .39

0th D° 4-5 PM - SW - T..70

1st D° - 4-5 PM S-W- T. .35

- Total Rainfall of January 1868 ===== 11.19

Rainfall of February 1868 —

5th Kabwabuata vil - night N - .7

6th D° early night N - T - .10

8 D° night N - T - 1.85

10th D° - 3-4 PM E - T - .5

11th D° - 1-2 PM - E - T - .55

13th D° 5 PM E - T .2

5 D° 4 PM W - T .30

17th D° Early morning .14

8th D° night E - T .94

- D° D° Noon .9

9th D° - 3-5 PM T .36

3^d D° - night E - T - .10

4th D° 7-9 AM E - T - 1.39

- D° 3-5 PM - E - T - 1.36

- D° 5-7 PM - E - T .22

7th D° night T .23

9th D° 5-6 AM - gently - .49[7.26]

- D° 3-5 PM - T - 1.45

- Total rainfall in February 1868 8.71

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Rainfall in March 1868

1st March at vil. Kabwabuata on Kakoma Rt - Early morning T - .9

3^d D° night W - T - .82

4th D° 9 AM to 12 - S.W.T. 1.50

Note It seldom rains 3 hours without ceasing

6th D° 3 P.M. E. T .42

- D° 5 D° D° .21

7th D° During the night 1.64

10th D° - night .58

11th 12 - 13th gentle showers but sufficient only to wet the ground

14th D° 4 PM - T. .3

15th D° 3 PM - E - T - .35

16th vil Kapemba in Kabuire 3 PM - T- W-.6

19th D° T - .7

25th (Much and heavy rains reported at
[-] Kabwabwata during our absence, probably 3 inches)
[-] D° morning - W - T - .43

26th D° during the night 3.82

27th D° gently now & then all day .14

29th D° early night T. .69

Kabuire Rainfall in March 1868 - (probably three inches more) 10.85

Rainfall in April 1868 -

April 1st Kabwabwata - 4-5 PM - E - T - .68

3^d D° 4-5 P.M. N - T .40

6th D° 4-5 PM N - T. .20

9th D° 5 PM T .16

10th D° 1 - 2 PM T .83

- This is said to be the first rains of Masika because the Thunder rolls or rumbles - E.

10th D° night E - T .10

14th Luao R. night & morning .45

15th D° night W .5

16 D° night E - T .37

19th Early morning = Moero E - T - .5

D° D° Moero = evening E - T .27

21st night Moero East side E T .38

- Rain ceased on 21st April = Total in April - 1868 3.94[9[4.03]]

20th May a thunder shower noon laid dust - say 4 East night = 9 =

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- Rainfall in October 1867 Lopere district 1.10
- - - in November = Lunda = Cazembe's 8.19
- - - December Lunda - Cazembe's 9.18
- - - January 1868 - Lunda & Kabuire 11.19
- - - February - Kabuire 8.71
- - - March - Kabuire 10.85
- - - April - Kabuire 4.03
- Total Rain fall in 1867-8 Inches 53.25

In Oct^r Nov^r Dec^r 18.47 = going South

Jan - Feb - Mar - April - 34.78 in return

Rainfall in 1868-69

August 29th Kaskas or hot season began today and
what is quite exceptional Rainfall began on the
31st Kizinga - centre of watershed 5 PM SE - T - 1.80

Sept 2^d D° 5 PM SE - T .73

4th Winds on surface constantly SE - Upper Strata
N - W - T every evening in N - W -

26th 5 PM SE - T - slight shower

27 Chulo R^t. W T 3 PM - .28

30th Lofubu or Kafu N - W - T .4

Oct^r 1st Lofubu S E - & W - T .16

2 Moisi 6 PM - SE - T .5

15 Kasangole 5 PM SE T .12

18 Katette 1 PM SE - T with a little hail - .5

19th Moero - 6 PM T laid dust only -

21st at Muabo's midnight T .4

22 - Kabwabwata - noon NW - T .10

D° D° 2 PM - SE - T.6

23^d D° 4 PM - SE - T laid dust

26th D° - 3 PM E - T scarcely laid dust

27 D° 3 PM S E T D° D°

30th D° 1-2 PM SE - T D° D°

31st D° 1 - PM SE - T D° D°

- Total Rainfall in October 1868 3.33

- the rainfall in Kabuire was less than
the above - the two showers at the top of
the list caused the grass to spring - at
Kabuire it has not started yet - thunder every afternoon

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Rainfall in November 1868

Nov^r 1st Kabwabwata 2 PM SE - T laid dust only .3

6th D^o 2 & 3 PM SE - then round to NW & back to SE - T .25

7th D^o 6 - 7 PM SE - T .22

8th D^o 7 - 8 PM SE. and E - T - loud & near = & morning .63

10th D^o 7 - 8 AM SE. clouded over T .39

16th D^o 12 - 1 - SE - then S - T - a little hail .64

18th D^o - 3 AM - S - E - T - then clouds went S - W - N & E. giving few drops [...]

19th D^o 3 PM - S - E - T short plump - .4

21st D^o 1 - 2 PM - E - T .58

22^d D^o D^o 2 - PM - E round to N - W - T.21

23^d D^o - 2 - PM E - laid dust only - T

24th D^o - 2 - 3 PM S E. and E - T - then W - T - little hail - .66

26th D^o 6 PM S E - & NW - clouds mixing T .47

27th D^o 7 AM - S E & NW - 2 strata of clouds .18

29th D^o Noon - E - round N - W - T .22

30th cloudy & damp from distant rains - slight drizzle here - [4.59]

- Total rainfall at Kabwabwata in Nov₋^r = 4.59

Rainfall in December 1868

2^d Kabwabwata 9 AM - SW & E - T .13

3 D° 1-2 AM SW - T .81

D° D° 4 PM - N - W - T .15

4th D° 5 AM gently & still .8

Note Clouds generally from S - E - less often from E.
when they go round to N -W - rain falls - thunder
every day -

6th D° - 1 - 2 PM. E & SE - T .14

7th D° 7 - 8 AM SE - T a stratum of lower clouds from N - W -.21

- D° 2 - 3 PM NW T .17

8th D° 4 PM - N - W - T - laid dust only

9th Sky overcast - lower stratum from N - W -
Upper D° from S - E -

12th Camp at Kalela 2 PM NWT - .61

13th D° began at midnight NWT - drizzly all morning .98

14th lower stratum of clouds NW - Upper D° SE -

15th D° D° D° but hot & sultry

15th Marungu 6 - 7 PM NWT - .24 [3.56]

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Rainfall in December continued [up to 16th] 3.56

ec^r 16th Marungu 6 PM NWT .10

18th clouds NW but a little rain from E - T .0

9th R- Lofunso NW & SE - clouds - too little to be measured .0

20th D° 3-6[[^]][AM] NW - T .45 - night silently .12 .57

21st D° 5 - 6 AM NW silently set in .11

24 D° 7 PM silently .4

26th D° 3 PM - 7 PM & night NW silently - generally
we are enveloped in a cloud which damps everything .64

27 Marungu proper - East of Lofunso R- 2 - 3 PM NT .25

28 Midnight - silent -N - W - .4

30th R Lofuko NW - T- .33

31st D° NW .34

- Total Rainfall in December 1868 5.98

Rainfall in January 1869

1st R - Lofuko - midnight - silent .8

5th D° Noon - & night .76

8th silently night .30

- all day at sick station 1.20
2.34

Note In January and February very little rain fell in[on] the
country West of the middle of Tanganyika = Marungu -
Light showers fell frequently but while keeping the
[Feby] vegetation moist they shewed nothing in the gauge -

5th Tanganyika 7th Noon .16

7th D° night 2.2

8th silently 16

24th - .32
2.66

March8th Noon NT no rain this month till now .46
night - Tanganyika - Kasanga .55

18 Ujiji Noon T 1.59

26 D° 6 AM NT 1.6

29 D° 12-3S - E - T 1.3
4.69

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Rainfall in April 1869

April1869 -

3^d Ujiji - 9 AM .42

4 D° 8 AM 1.68

6th D° 6 AM T .43

7th D° 12 - 3 T - 1.8

D° D° 4 - 5 PM T - .22

12th D° 6 AM & 6 PM .30

13th D° 3 PM SE - T 1.56

16th D° 8 AMSE - T .75

17th D° silently 7 AM SE - .11

18th D° drizzling morning and afternoon .0

21st D° Noon - SE - T .25

27th D° 8 - 9 AM T .85

29th D° 11 AM SE T - .68 [8.33]

Rainfall in May 1869

May 21869 Ujiji 11 AM silent - SE - .15

D° - 1 -3 PM - SE .79

3^d D° 12 - 1 PM SE - T rolling as it is the .36

5th D° 1 - 2 PM SE Masika now.9

9th D° Noon 13

10th D° Noon NW T 1.8

11th D° 3 - 6 AM rolling T - 1.3

D° D° 2 - 3 PM NW .19

12th D° drizzling - rolling T - NW .39

D° D° 7 - PM - little RT S - E - .28

13th D° 7 AM & noon SE - RT .31

14th D° 2 - 3 PM SE - .18

17th D° Noon SE - .11

18th D° D° SE-

25th D° 2 - 3 PM - - SE - .7 [5.15]

26 D° 2 - 4 PM W - .22

31st D° 8 - 11 AM - S - W - 2.80 [32] [3.34] [8.50]

Rainfall 1868 - 9 -

- Aug^t Sept^r Oct^r 1868 3.33
- November 4.59
- December 5.98
- January 1869 2.34
- February - 2.66
- March 4.69
- April 8.33
- May - 18th [5.16]37.08
- May to 31st from 18th - 3.34
- Up to end of May 40.42

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Rainfall in 1869 Manyema

2 Sept^r Katamba Noon first rain fell at Noon -

3 Katamba 4 PM SE - T .4

14 Moloni or Mononi M^{ts} S E - & hail.50

15 Mamba's - noon SE in march not measured

20 Monandenda's SE dust not laid

2 October Moenekuss' used now for T = thunder

10[1] Moenekuss 12^h NW - laid dust

4 D° - 4 - 5 PM NW .27

• - 8 PM SE - .4

10 D° 2 - 3 - PM SE .38

11 D° - 2 - 3 PM E - & Hail.56

13 D° 3 - 5 PM E - 1.82

15 D° 4 PM E .18

16 D° 11 AM to 5 PM showery & cold E & NE .37

17 D° shut in by dense clouds 7 - 10 AM - N.W - .64

23 D° - Noon E & N - E - .4

27 D° Noon E & NE - .39

28 D° 12 - 1 PM N - E - Hail 1.20

29 D° night gentle showers

30 D° all day clouded over

31 D° 6 - 9 PM NE - .40

• Total Rainfall in October 1869 6.82 -

Rainfall in November 1869

Nov^r Bambarre or Moenekuss

2 D° drizzling after dark N - W -
dripping cloud in Forest Manyema
Forest at 11 - 2 PM N- W- .54

4 D° 2 - 3 PM SE - .92

5 5 hours S - W - of Moenekuss vil -
11 - 3 PM S E and silent shower till 4[PM] .95

6 D° - S- E- shower laid dust

8 Monandamba's vil SE - 9 AM .11

- D° D° 3 - 4 PM SE - .22

12 D° 11 AM SE .6

14 D° 3 - 6 PM SE .18

15 Kolomokata's 3 - 4 PM SE .16

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November1869 15 Chirumbe's about midnight much 1.38

15th D° 8 - 12 AM SE 1.6

22 R - Luam[...] 8 - 9 AM SE .29

- D° 11 - to 2 PM .21

24 D° 2-3 PM SE .18

27 D° 1 - 5 PM NW & to S.E - - Hail 1.56

28 D° 5 - 7 PM NE [...] 1.67

- Total Rainfall in November 1869 9.09

Manyema Rainfall December 1869

Dec^r 21869 R Luamo 3 - 6 PM SW - S - & SE - 1.18

3^d & 4th Nil showers

5 to 11th Thunder daily

11th Luamo 3 - 4 PM - SE .34

- D° 5 - 7 .1[...] [3]

12th D° 11 - 12 silent .15

14 D° during night SE 1.42

15th D° 2 - 4 PM SE 1.10

17 R^t Mofungoye 5 PM SE .88

18th Kolo muzungu's 2 days NW of Moenekuss
12 - 2 PM 42 -
.15

19th Moenekuss - SE .10

- D° 9 - 10 AM SE .20

22^d D° 6 - 9 PM SE - E & NW .51

27th D° 1 PM SE .9

28 Luamo R - 2 - 4 PM SE 1.3

29 D° 6 - 8 AM SE 1.2

- D° D° Noon SE .11

31st Nil Shower Total for December 7.80

Manyema Rainfall 1870

January 1st clouded over from SW

1st R Luamo 7 - PM .4

2^d D° 2 - 3 PM .17

7th D° Forest 7 - 8 AM[AM] Forest .32

9th D° D° AM .6

12th D° 2 - 3 PM SE 1.16

20th Chanza N 5 - 6 PM NW .37

22 & 23 after sunset .13

2[...] 4 - 5 PM SE .47