

NOTES ON FLOW OF RUAHA RIVER 1994 TO 2015

1994

River dried up on NOV 17average rainfall rivers full and flowing
started flowing DEC 15 well.
(RAINFALL NOT RECORDED)

1995

River dried up on OCT 19average rainfall rivers full and flowing
started flowing DEC 23well.
RAINFALL TOTAL FOR 95/96.....388mm (incomplete records)

1996

River dried up on OCT 17generally very poor rainfall this year.
started flowing DEC 16Sand rivers hardly flowed.
RAINFALL TOTAL FOR 96/97.....401mm

1997

River dried up on SEPT 20 Major rainfall due to El ninio
started flowing NOV 22 river burst its banks for 3 months
RAINFALL TOTAL FOR 97/98.....815mm

1998

River dried up on NOV 18despite floods river still dried up
started flowing JAN 19 1999rain very sporadic and late, it
stopped again FEB 12 1999looked like drought conditions.
Started flowing MARCH 9 1999.....no rain in Feb, river dried
.....up again. Good rain in March FULL
RIVER FLOWING MID APRIL 1999and half of April
RAINFALL TOTAL FOR 98/99.....392mm

1999

River dried up on SEPT 21.....poor rainfall, late and sporadic
Started flowing DEC 20.....in catchment areas.
FLOW WAS DUE TO LOCAL FLOODING SO DID NOT FLOW CONTINUOUSLY UNTIL
JAN 28 2000
RAINFALL TOTAL FOR 99/00.....527mm

2000

SEPTEMBER 17RIVER STOPPED FLOWING
NOVEMBER 22.....RIVER STARTED FLOWING AGAIN
RAINFALL TOTAL FOR 00/01.....960mm

2001

Due to good rainfall, the local water-table is high, hence springs along the Ruaha are assisting the flow to the Park. It is not due to efforts to curb intake from the Usangu Basin. (cont.)
2001 CONT.

NOVEMBER 12RIVER STOPPED FLOWING
 DECEMBER 23.....RIVER STARTED FLOWING.
 TOTAL RAINFALL706mm

2002

Due to good rainfall water tables are high and springs along the great Ruaha flowed until October. All water since the end of May in the river is from these springs, not is from the Usangu basin.

NOVEMBER 2.....RIVER STOPPED FLOWING
 DECEMBER 24.....RIVER STARTED FLOWING
 TOTAL RAINFALL.....619mm

2003

Despite the fact that we received reasonable rainfall in mm. The rain fell in large sporadic storms, as a result the vegetation suffered from the long gaps between rain showers. The water table rose a bit, but not as much as it would have done from constant rain.

The river never rose to its full level, and the Usangu water only flowed for about one month. The river this year is almost totally from local run off not from the Usangu catchment area.

The river this year dried up very early but what has made the problem worse is that the water table is now so low from repeated bad flows over the past few years. Hence it became impossible to dig for water by the end of Nov as the water table was below the rocks. This seriously affected the movements of the Elephants, they normally dig for water at this time of year and then the other animals use the holes they have dug. Hence the animals were desperate for water that they normally would get from the Elephants. The Elephants have moved towards the villages for their water during this time which has caused more problems.

SEPTEMBER 21.....RIVER STOPPED
 DECEMBER 14.....RIVER STARTED
 DECEMBER 21.....RIVER STOPPED
 DECEMBER 30.....RIVER STARTED
 JANUARY 5 (2004).....RIVER STOPPED
 JANUARY 16.....RIVER STARTED. Usangu water came down January 30th 2004.
 TOTAL RAINFALL FOR 2003/04.....532mm

2004

The river reached its highest level in April 2004. This level was a foot lower than the marker rock up river from my camp. In previous years eg, from 1994- 2000 the river always consistently covered this rock by at least 2 feet. This would then flow continuously at this height for several months. Nowadays eg, 2001 -2004 this lower ‘high’ level only flows consistently for no more than a week. Once the local rain has stopped it slowly begins to go down, often keeping up the consistent rate of about 1cm per day.

July 2004. The river is now very shallow almost forming separate channels around the rocky areas. The gully by my camp has been dry for about 1 month.

November

In 2006 the author moved from her camp on the banks of the river to another area of Ruaha Park, but she continues to make notes on the flows of the river. The style of the notes have changed slightly.

2005/2006 Stopped Oct 26th 2005 to started Jan 31st 2006

2006/2007 stopped **October 15th 2006 - started November 26th 2006!!**. (Rain started early and was exceptionally heavy ending in May) **El ninio conditions** high rainfall

2007/2008 I have lost this data due to computer problems.

2009/2010 **Flowed all year! This was an historic year, first time since 1992. This was not due to more rainfall but due to one river (the Ndembera) being policed by TANAPA and the relevant gates to rice paddies being closed during the dry season... SIMPLE!!! Therefore ONE of the 7 major rivers made al the difference... it is not difficult to keep the river flowing all year and rice does not need to stop it just needs honest governance thats all.**

2010/2011 October 3rd stopped 2010- started March 20th 2011

2011/2012 stopped September 15th 2011 - started December 25th **Good rainfall this year and reasonable flows.** (at the 'now accepted' lower flow levels that is)

2012/2013 October 15th 2012 stopped - February 16th 2013 started **Lowest wet season flow in History despite normal rainfall. The river never flowed bank to bank**

2013/2014 September 25th stopped - started February - **Best wet season flow for some years due to heavy late rains.**

2014/2015 November 12th 2014 Stopped - as yet **NO FLOW until 25th Feb 2015** despite early rains in the Usangu catchment area. **Very LOW flows.**

2015/2016 **October 30th 2015 Stopped flowing started flowing mid December 2015** from local rain. **El ninio conditions** very heavy rain in catchment areas, the Mdonya river and the Mwagusi river (inside Ruaha Park) flowed the highest anyone can remember seeing them. Much flooding in Lunda area towards Mtera dam, and in Pawaga and damage to farmers. This year the **fishermen at Mtera were able to return as the dam was FULL.** They left the area years ago.

2016/2017 **October 30th 2016 stopped flowing (despite huge rainfall this past season with exceptionally high flows and high water-tables).** This is due to to the rice farmers starting to plant their rice... EARLY long before the rains have arrived. You can see from the records that the river seldom flows longer than end of October.