



OKACOM

A Photographic Reconnaissance Survey of the Cubango and Cuito River Basins in Angola

Specialist Report prepared by Dawid Alheit for :

PERMANENT OKAVANGO RIVER BASIN COMMISSION

Angola

Ministério da Energia e Águas
GABHIC
Cx. P. 6695
LUANDA

Tel: +244 2 393 681
Fax: +244 2 393 687

Botswana

Ministry of Mineral Resources and Water Affairs
Department of Water Affairs
Private Bag 0029
GABORONE

Tel: +267 360 7100
Fax: +267 303508

Namibia

Ministry of Agriculture, Water and Rural Development
Department of Water Affairs
Private Bag 13193
WINDHOEK

Tel: +264 61 296 9111
Fax: +264 61 232 861

A Photographic Reconnaissance Survey of the Cubango and Cuito River Basins in Angola

Report prepared by:

**D. Alheit
2 Curie Way
Meadowridge
Cape Town
South Africa**

March 1998

Table of Contents

1. Introduction	1
2. The Rivers and their Catchments	2
3. Agriculture and Food Production	9
4. Socio-Economics and Development	11
5. The Aftermath of War	14
6. Transport and Communications	16

Slide	Date	Coordinates		Description
		Latitude	Longitude	
01				" <i>A Luta Continua</i> ". In May 1997, as the summer rains on Angola's <i>plano alto</i> came to and end, an expedition following the annual flooding of the Okavango River, caused by these rains, started. Travelling east from Lubango to Cuito-Cuanavale, we crossed all the major tributaries of the Cuvango and Cuito Rivers. Returning with a northern loop via Huambo, we plotted their sources.
02	2/7/97	15 35 48	12 12 15	Leaving Lubango at sunrise we struggled along with heavy truck traffic for some 30km of badly potholed road before turning east off the main route to Benguela. The road improved and by midday we crossed the Kunene River at Matala, where a hydro-electric plant still functions.
03 + 04				Moving further east the area became less populated. Small "traditional" villages scattered over gently undulating hills of lush grassland, interspersed with fairly dense forest. Very few signs of cultivation or livestock. No signs of wildlife at all.
05				The Cuvango River at <i>Kuvango</i> . This colonial settlement, like all others we passed through, is abandoned and derelict. Apart from a similar sized herd at Cuito-Cuanavale, these were the only cattle we saw on the entire trip.
06	2/7/97	14 50 58	16 22 55	The road bridge, like all others we encountered, is blown-up. We crossed the river on the railway bridge
07				Rather than making use of old colonial buildings, the local inhabitants are constructing new buildings, using traditional methods and materials. This small school is situated on the banks of the river, less than a kilometre from the empty buildings of <i>Kuvango</i> .
08 + 09				The North-South watershed between the Cuvango and Cutato Rivers. East of <i>Kuvango</i> the landscape and vegetation remained the same but road conditions deteriorated rapidly. We crossed numerous small streams on temporary structures.
010 + 011	3/7/97	14 22 12	16 29 48	Cutato River.
012 + 013				In this case the temporary metal bridge was also broken. We had to repair it before continuing.
014 - 016				The North – South watershed between Cutato and Cuchi rivers. Very lush grassland with few villages and no signs of cultivation or wildlife
017	3/7/97	14 40 13	16 58 55	Cuchi River. We waded past this bridge through fast flowing water about 0.5m deep
018 – 021	4/7/97			Mopani (?) forests between Cuchi and Culei rivers. Sleeping in this forest we were struck by the total absence of any of the normal night sounds of southern Africa. Although the area is reminiscent of places like Moremi and Savuti in Botswana, there is no sign of wildlife left in these areas.
022-024		14 41 08	17 21 28	Culei River. We waded through some 0.6m of fast flowing water.
025				Menongue is a big center with some infrastructure still in place.
026 + 027		14 39 59	17 41 40	The confluence of the Cueba and Luduca rivers is in Menongue. The river flows strong over a rocky bed and is used by the local population for washing. There are two bridges, both in good condition and continually guarded
028 + 029				From Menongue we traveled South to Caiundo on a road running just west of the Cueba River. The lushness of the environment and the size of the ruins of colonial farm buildings indicate that this area must have supported a successful farming community.
030 – 032				On a 100km stretch of this road we counted 97 wrecks of

				military hardware. Some still had live ammunition inside
033	5/7/97	15 41 48	17 27 33	Cuvango River at Caiundo, after the confluence of all the above tributaries.
034 – 036				The UN troops stationed here escorted us down to the river as the path skirts extensively mined areas. The UNITA command stationed at Caiundo informed us that the road running to the south, following the Cuvango on its western bank, could be used. The river can at this stage however only be crossed after the flood season. (August – January)
037				After returning to Menongue, we continued east towards Cuito-Cuanavale, occasionally passing villages with new buildings
038		14 35 22	18 10 12	Luassingua River. Tributary to the Cuito. New bridge over river about 10m wide, shallow and slow flowing
039	6/7/97	14 41 07	18 40 06	Cuiriri River. Tributary to the Cuito. River valleys here typically very wide with rivers quite slow and meandering.
040				Looking at the Cuito river valley. First signs of cultivation
041 + 042		15 10 15	19 11 29	The Cuito River just after confluence with Cuanavale. Very wide river bed with lush grass. River quite shallow (about 0.5m), slow and meandering.
043 + 044				A broken flow meter just south of the road near the bridge.
045				At this stage the end of the road east. The bridge is destroyed and the river is too strong to wade. Also all available intelligence advised that the road to the east of the river is heavily mined. However, it seems that the Cuito flows close to the edge of the North-South watershed, so that virtually the entire catchment area lies to the west of the river
046 + 047				We stayed at a new De Beers exploration base. If diamond mining should become a reality in future, it will have an effect on the quantity and quality of the water in the river.
048 + 049	7/7/97			Returning to Menongue we headed north towards Huambo. The landscape changed with the increase in altitude. Forest areas, though still numerous, became more clearly defined and slowly started to give way to open grass plains
050 + 051				Many new villages are being built in cleared forest areas. Various aid agencies (e.g. CARE, IOM) are assisting with resettlement of people displaced during the war.
052 – 054				Pigeon farming is popular in this area.
055				New construction with traditional materials and methods are very common
056				Although agriculture remains small scale, it seems to have developed beyond the merely subsistence level. We often came across gathering places on the road where people waited with produce to be sent to markets. All the major centres have big informal markets.
057				Typical lush landscape between Dondo and Chitembo.
058 + 059	8/7/97	13 42 45	17 05 28	The Cusseque River, a tributary to the Cacuchi, is very typical of the many rivers originating in this area.
060		13 35 35	16 52 50	Close to the source of the Cacuchi river which is a tributary to the Cuchi
061		12 31 59	16 41 59	Very near the source of the Cuchi River.
062				A typical "fountain". The start of one of the hundreds of small streams we saw in the area along the road between Chinguar and Huambo.
063		12 36 09	16 07 44	Possibly the source of the Kuvango River. Near Bela Vista within extensive exotic bluegum plantations





1. Introduction





In May 1997, Dawid Alheit and a colleague Urban Schulte, started out on an expedition to explore the entire length of the Okavango River from its source on the Bie Plateau in Angola, down to the Delta in Botswana. Despite various hazards and a number of incidents, the Angolan part of the journey was accomplished by 4WD during June, followed by a kayak expedition along the length of the river in Namibia and Botswana.





This report presents a selection of the photographs kindly made available by Mr Alheit, and provides a useful and informative description of some of the Cubango and Cuito catchments within Angola.





A full report on the entire expedition, covering all three countries, entitled "Source to Sand", has been written by Dawid Alheit, and is available from Conservation International.





2. The Rivers and their Catchments





<p>3.</p>		<p>Typical of the catchment west of the Cubango River, near Kuvango.</p> <p>Moving further east the area became less populated.</p> <p>Small "traditional" villages scattered over gently undulating hills of lush grassland, interspersed with fairly dense forest.</p>
<p>4.</p>		<p>Very few signs of cultivation or livestock.</p> <p>No signs of wildlife at all.</p>
<p>5.</p>		<p>The Cubango River at Kuvango.</p> <p>This colonial settlement, like all others passed through, was abandoned and derelict.</p> <p>Apart from a similar sized herd at Cuito-Cuanavale, these were the only cattle seen on the entire trip.</p>
<p>6.</p>		<p>The road bridge, like all others encountered, was blown up.</p> <p>The river was crossed via the railway bridge.</p>





<p>8.</p>		<p>The North-South watershed between the Cubango and Cutato Rivers.</p> <p>East of Kuvango, the landscape and vegetation remained the same but road conditions deteriorated rapidly.</p> <p>Numerous small streams were crossed on temporary structures.</p>
<p>10.</p>		<p>Cutato River.</p>
<p>11.</p>		<p>Cutato River</p>
<p>24.</p>		<p>Cuelel River.</p> <p>Fast flowing water, 0.6m deep.</p>

<p>14.</p>		
<p>15.</p>		<p>The North-South watershed between Cutato and Cuchi rivers.</p> <p>Very lush grassland with few villages and no signs of cultivation or wildlife</p>
<p>16.</p>		
<p>28.</p>		<p>From Menongue travelling south to Caiundo on a road running just west of the Cueba River.</p> <p>The lushness of the environment and the size of the ruins of colonial farm buildings indicate that this area must have supported a successful farming community.</p>




<p>18.</p>		
<p>19.</p>		<p>Mopani forests between Cuchi and Culei rivers.</p> <p>The total absence of any of the normal night sounds of southern Africa is striking, when sleeping in the forest.</p> <p>Although the area is reminiscent of places like Moremi and Savuti in Botswana, there is no sign of wildlife left in these areas.</p>
<p>20.</p>		
<p>39.</p>		<p>Cuiriri River, tributary of the Cuito.</p> <p>River valleys here typically very wide with rivers quite slow and meandering.</p>

<p>41.</p>		<p>The Cuito River just after the confluence with Cuanavale. Very wide river bed with lush grass.</p> <p>River quite shallow ($\pm 0.5\text{m}$ deep), slow and meandering.</p>
<p>43.</p>		<p>The abandoned gauging station at Cuito-Cuanavale.</p>
<p>44.</p>		<p>Reinstatement would not be a major task.</p>
<p>57.</p>		<p>Typical lush landscape between Dondo and Chitembo.</p>

<p>48.</p>		<p>Returning to Menongue and heading north towards Huambo.</p> <p>The landscape changes with the increase in altitude.</p>
<p>49.</p>		<p>Forest areas, though still numerous, slowly started to give way to open grass plains</p>
<p>58.</p>		<p>This tributary of the Cacuchi, is very typical of the many rivers originating in this area.</p>
<p>59.</p>		

<p>60.</p>		<p>Close to the source of the Cacuchi River.</p> <p>The Cacuchi River is a tributary of the Cuchi River.</p>
<p>61.</p>		<p>Very near the source of the Cuchi River.</p>
<p>62.</p>		<p>A typical "fountain".</p> <p>The start of one of the hundreds of small streams seen in the area along the road between Chinguar and Huambo.</p>
<p>63.</p>		<p>Possibly the source of the Cubango River.</p> <p>Near Bela Vista within extensive, exotic Eucalyptus (bluegum) plantations</p>

3. Agriculture and Food Production

52.		
54.		<p>Pigeon farming is very popular in some areas, and has replaced traditional sources of meat such as cattle, sheep and goats, which were very rarely seen.</p>
40.		<p>Some maize fields close to the Cuito Valley – a very rare sight.</p>

56.











Although agriculture remains small scale, it seems to have developed beyond the merely subsistence level.


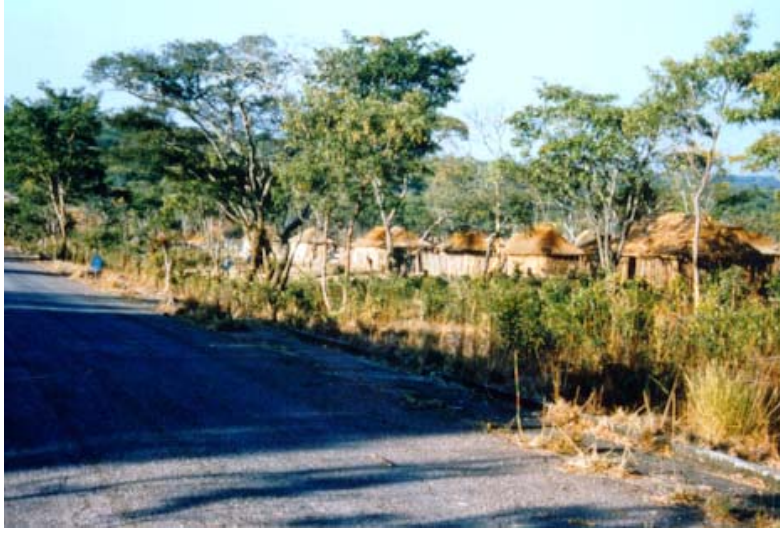

Often seen were gathering places along the road, where people waited with produce to be sent to markets.

All the major centres have big informal markets.




4. Socio-Economics and Development




<p>7.</p>		<p>Rather than making use of old colonial buildings, the local inhabitants are constructing new buildings, using traditional methods and materials.</p> <p>This small school is situated on the banks of the river, less than a kilometre from the empty buildings of Kuvango.</p>
<p>25.</p>		<p>The city of Menongue</p>
<p>26.</p>		<p>The confluence of the Cueba and Luahuca Rivers is in Menongue.</p> <p>The river flows strong over a rocky bed and is used by the local population for washing.</p>
<p>27.</p>		<p>There are two bridges, both in good condition and continually guarded.</p> <p>This is a popular spot for clothes washing.</p>

<p>29.</p>		<p>An abandoned farm house just west of the Cuebe River.</p>
<p>37.</p>		<p>Signs of re-settlement as new buildings are constructed, between Menongue and Cuito-Cuanavale.</p>
<p>46.</p>		<p>A new De Beers exploration camp near Cuito-Cuanavale.</p>
<p>47.</p>		




50.		<p>Various Aid Agencies (e.g. CARE, IOM) are assisting with the resettlement of people displaced during the war.</p>
51.		<p>Many new villages are being built in cleared forest areas.</p>
55.		<p>New construction with traditional materials and methods are very common.</p>



5. The Aftermath of War

30.	 A photograph showing a heavily damaged tank, possibly an M113, lying in a field of tall, dry grass. The tank's turret is partially visible, and its tracks are mangled. The background shows a clear blue sky and distant hills.	
31.	 A photograph of a destroyed tank, possibly an M113, lying on its side on a paved road. A white Toyota pickup truck with a red and blue emergency light bar on its roof is parked next to the tank. The background consists of green trees and a blue sky with white clouds.	<p>On a 100km stretch of this road, 97 wrecks of military hardware were counted.</p> <p>Some still had live ammunition inside.</p>
32.	 A close-up photograph of a red warning sign attached to a metal surface. The sign features a white skull and crossbones symbol and the text "PERIGO MINAS!" in white capital letters. Below the symbol, the words "DANGER" and "MINES" are written in smaller white capital letters. The metal surface is rusted and has some faint markings.	

<p>33.</p>		<p>Live mines (marked with red flags) close to the crossing of the Cubango River at Caiundo.</p>
<p>35.</p>		<p>Mines are a major problem, and will make fieldwork in some parts of the catchment very difficult.</p>
<p>36.</p>		<p>Mines are a major problem, and will make fieldwork in some parts of the catchment very difficult.</p>

6. Transport and Communication

<p>9.</p>		<p>A temporary bridge over a tributary between the Cubango and Cutato Rivers.</p>
<p>12.</p>		
<p>13.</p>		<p>Several temporary bridges are damaged.</p>

17.		Broken bridge over the Cuchi River.
45.		Broken bridge over the Cuito River makes access further to the east extremely difficult.