

Caiundo - Landscape



Fig. 1: Cubango River valley with maize fields (photo: R. Revermann).

Table 1: Landscape characteristics.

Geology		Lithology	
Pleistocene Kalahari sands & Holocene river sediments		Unconsolidated sands & loams	
Mean height (m a.s.l.)		Mean annual precipitation	
1,160 m		732 mm	
Landscape units (LSU)			
	LSU 1 (Recent Floodplains): 5%	LSU 2 (Old Floodplains): 14%	LSU 3 (Kalahari Dune Area): 81%
Related land uses			
	water supply, fishery, grazing, reed collection, washing, hunting	cropping, grazing	hunting, grazing, cropping, firewood collection
Ecosystem goods			
	drinking water, fish, reeds, wildlife	maize, millet, beans, meat	maize, beans, firewood, construction wood, honey, wildlife

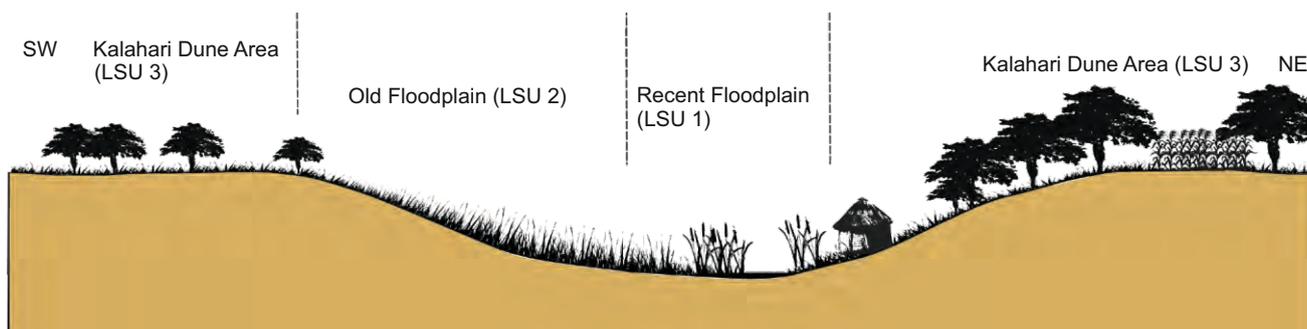


Fig. 2: Landscape catena of the core site Caiundo.

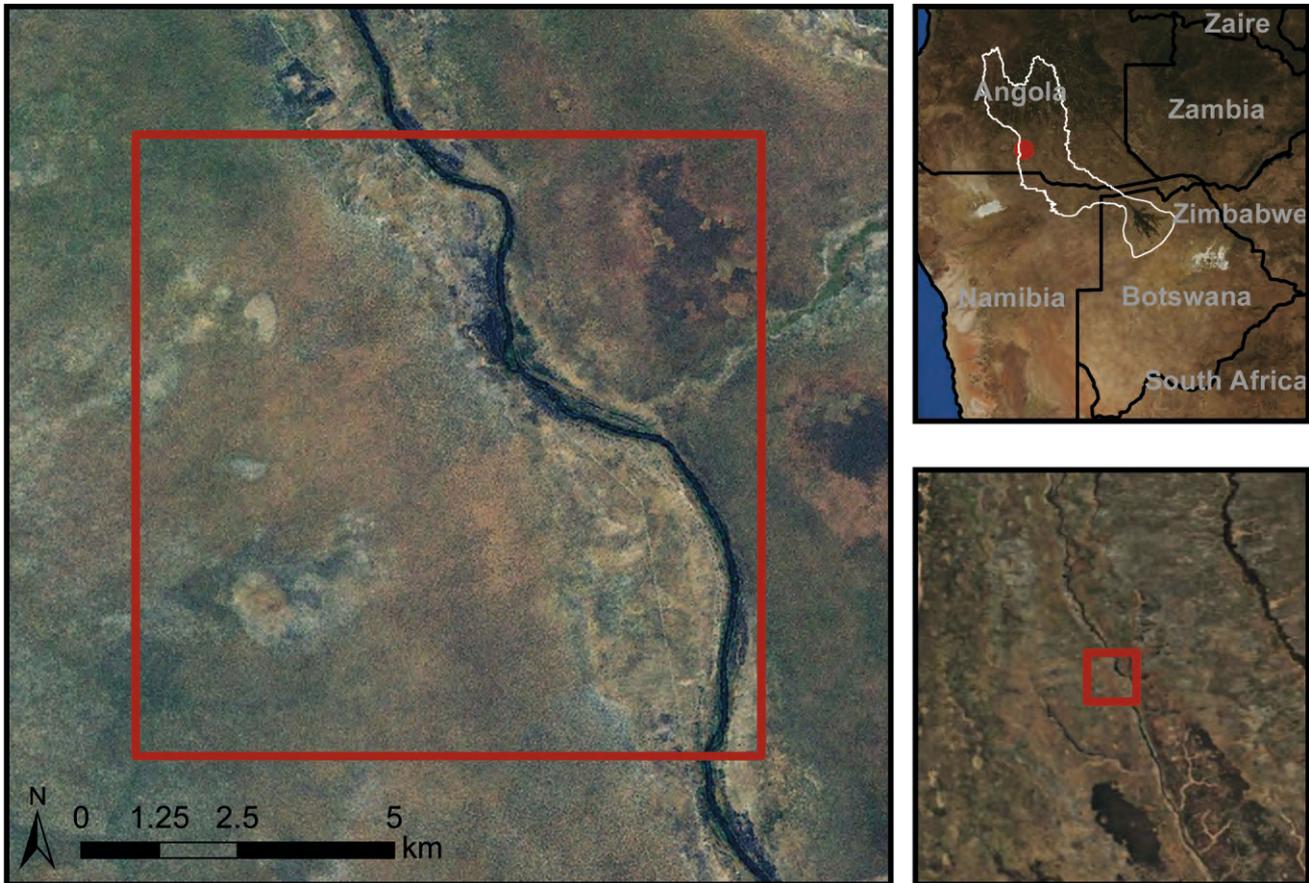


Fig. 3: Caiundo core site at three scales. The white line depicts the Future Okavango Research Area (FORA) (background: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community).

This core site represents the landscape of the middle reaches of the catchment (Fig. 1). Here, the small tributaries of the upper catchment already have merged and form the large Cubango River. A few permanent streams (at the core site the Dindi River) as well as some ephemeral rivers drain the hinterland (Fig. 2 and 3).

The river meanders only slightly and has incised through the surrounding landscape of widespread sands and underlying bedrock for about 80 m, resulting in the typical morphology of slip-off and undercut slope. The lower parts of the valley are episodically flooded (Tab. 1; **Recent Floodplains, LSU 1**) whereas the upper parts of the floodplain with a mean height difference of 6 m originate from times with a higher river level (**Old Floodplains, LSU 2**). These latter areas protrude into the surrounding sandveld of the **Kalahari Dune Area (LSU 3)**.

The river is fringed by remnants of

gallery forest on dry levees. Behind these levees the Recent Floodplain is dominated by tall reeds and grasses and is characterized by heavy alluvial soils. Safe from inundations, the Old Floodplains are one of the preferred areas for cropping. However, large proportions are fallow or in a stage of intermediate shrubland. The Kalahari Sandveld is covered by a dense woodland savannah with a high proportion of Manketti (*Schinziophyton rautanenii*) trees. The woodlands are used for cattle grazing, extraction of firewood, construction material and other non-timber forest products. In conjunction with frequent fires this has led to rather open and partly degraded woodlands in the proximity of settlements.

A chain of hills on the eastern side of the Cubango River forms a distinct subunit within LSU 3 which overlays bedrock structures. It is distinguished by a very dense vegetation hardly affected by fire.

The soils are deep red and sandy and represent the favoured areas for cropping, reducing the need for resting periods. The Caiundo area is only sparsely settled along the river.

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