

ナンコクエ橋 環境チェックシート (上流側)

Environmental and social check worksheet on each bridge

Name of Bridge 3:Nankokwe Bridge **UPSTREAM** (33m Temporary Bailey Bridge , existing bridge was settled by flood)

SURVEY DATE	:29 Dec. 2004, 6 Jan. 2005	LOCATION NAME	NANKOKUWE BRIDGE	LAT:S14°17'28.4"	LNG:E34°31'21.4"	ALT:537m
WEATHER	:SHOWER/CLOUDY	SURVEY AREA	600*200m=12ha (included river area, 300m each side from center of bailey bridge, 100m each side from center of existing road)			
SURVEYOR	:HIGA/MAKWINJA	SKETCH				
SKETCH		:HIGA(No scale)				
<p>Legend   Existing Bridge   Existing Road   Facilities, Inhabit.</p> <p>350m          11 Inhabitants (3houses in Row, 8houses out of Row)          Maize          Cassava          Upstream(Dec.17,2004)          Maize          Cassava          Banana          60m Signboard          30m          Exitig electricity line about 100m          Salima          Balaka</p>		CONDITION OF EACH ENVIRONMENTAL ITEM		UPSTREAM AREA		
AIR POLLUTION		River Dimension		No relation		
WATER POLLUTION		Flow		See Topographic map		
		Turbidity,PH, COD		Q= width 15m*depth 1.0m*1.0m/s=15m <sup>3</sup> /s (23rd Dec. visual survey) Q= width 15m*depth 1.5m*2.0m/s=45m <sup>3</sup> /s (24th Dec., visual survey)		
SOIL POLLUTION		WASTE		No relation		
TRAFFIC ACCIDENT AND SECURITY SITUATION		WATER USAGE		Quarry (Kapiri, +10km distance), Borrow and Gravel Pit (Njolo, +5km distance)		
BIODIVERSITY		Animal Diversity		Interview with Salima traffic police station (see interview result)		
		Vegetation		Irrigation, Washing, Water place for livestock		
		Endangered Species		No relation		
INHABITATION		Vegetation		Maize, Cassava, Banana		
		Endangered Species		Nonexistent		
		In the right of the way		3 (350m Salima side)		
		Out of ROW		8 (350m Salima side)		
LAND USE		Main industry of inhabitant		Small-scale farming (maize, cassava, banana), Carving(sell crafts along M5)		
		NP/Wildlife Reserve & Forest		Farm land, inhabitation, Livestock's grazing area		
SOCIAL INFRASTRUCTURE		VULNERABLE SOCIAL GROUPS		Electricity line, Kiosk & Bus stop (700m Salima side), Hospital and Mua Mission (Mua Mt Salima side)		
		WATER RIGHTS		Nonexistent		
		FISHERIES RIGHTS		Nonexistent		
		LOCAL CONFLICT		Nonexistent		
		CULTURAL HERITAGE		Nonexistent		
INFECTIOUS DISEASES HIV/AIDS		OTHERS(Disaster)		Interview with administration in Salima District Hospital (see interview result)		
				Due to Flood 2001 exiting pier was settled and river edge has been eroded and scoured.		

ナンコクエ橋 環境チェックシート (下流側)

Environmental and social check worksheet on each bridge

Name of Bridge 3:Nankokwe Bridge DOWNSTREAM (33m Temporary Bailey Bridge , existing bridge was settled by flood)

SURVEY DATE	:29 Dec. 2004, 6 Jan. 2005	LOCATION NAME	NANKOKUWE BRIDGE	LAT:S14°17'28.4"	LNG:E34°31'21.4"	ALT:537m
WEATHER	:SHOWER/CLOUDY	SURVEY AREA	600*200m=12ha (included river area, 300m each side from center of bailey bridge, 100m each side from center of existing road)			
SURVEYOR	:HIGA/MAKWINJA					
SKETCH	:HIGA(No scale)	CONDITION OF EACH ENVIRONMENTAL ITEM		DOWNSTREAM AREA		
		AIR POLLUTION		No relation		
		WATER POLLUTION	River Dimension	See Topographic map		
			Flow	Q= width 15m*depth 1.0m*1.0m/s=15m <sup>3</sup> /s (23rd Dec. visual survey)		
				Q= width 15m*depth 1.5m*2.0m/s=45m <sup>3</sup> /s (24th Dec., visual survey)		
		Turbidity,PH, COD		-		
		SOIL POLLUTION		No relation		
		WASTE		Quarry (Kapiri, +10km distance), Borrow and Gravel Pit (Njolo, +5km distance)		
		TRAFFIC ACCIDENT AND SECURITY SITUATION		Interview with Salima traffic police station (see interview result)		
		WATER USAGE		Irrigation, Washing, Water place for livestock		
		BIODIVERSITY	Animal Diversity	No relation		
Vegetation	Maize, Cassava, Plantation (2ha)					
Endangered Species	Nonexistent					
INHABITATION	In the right of the way	0				
	Out of ROW	0				
	Main industry of inhabitant	Small-scale farming (maize, cassava, banana), Carving(sell crafts along M5)				
LAND USE	NP/Wildlife Reserve & Forest		Farm land, inhabitation, Livestock's grazing area			
			Nonexistent			
SOCIAL INFRASTRUCTURE		Telephone line, Drop structure in river, Grave and Bus stop (600m Salima side)				
VULNERABLE SOCIAL GROUPS		Nonexistent				
WATER RIGHTS		Nonexistent				
FISHERIES RIGHTS		Nonexistent				
LOCAL CONFLICT		Nonexistent				
CULTURAL HERITAGE		Nonexistent				
INFECTIOUS DISEASES HIV/AIDS		Interview with administration in Salima District Hospital (see interview result)				
OTHERS(Disaster)		Due to Flood 2001 exiting pier was settled and river edge has been eroded and scoured.				

ナンヤングカルバート 環境チェックシート (上流側)

Environmental and social check worksheet on each bridge

Name of Bridge 2: Nanyangu Culvert UPSTREAM (Temporary pipe culvert, width 7.5\*length 20.5\*height 6.0m)

SURVEY DATE	:29 Dec. 2004, 6 Jan. 2005	LOCATION NAME	NANKOKUWE CULVERT	LAT:S14°36'58.3"	LNG:E34°44'20.9"	ALT:638m
WEATHER	:SHOWER/CLOUDY	SURVEY AREA	600*200m=12ha (included river area, 300m each side from center of bailey bridge, 100m each side from center of existing road)			
SURVEYOR	:HIGA/MAKWINJA					
SKETCH	:HIGA(No scale)					
			CONDITION OF EACH ENVIRONMENTAL ITEM			
			UPSTREAM AREA			
			AIR POLLUTION			
			No relation			
			WATER POLLUTION			
			River Dimension			
			See Topographic map			
			Flow			
			No flow (Dec. 17, 2004)			
			Turbidity, PH, COD			
			SOIL POLLUTION			
			No relation			
			WASTE			
			Quarry (Sharape, +30km distance), Borrow and Gravel Pit (Chingamba, +5km distance)			
			TRAFFIC ACCIDENT AND SECURITY SITUATION			
			Interview with Salima traffic police station (see interview result)			
			WATER USAGE			
			Irrigation			
			BIODIVERSITY			
			Animal Diversity			
			Interview with NRA Environmental Specialist and local inhabitant			
			Vegetation			
			Maize, Cassava, Banana, Tobacco			
			Endangered Species			
			Nonexistent			
			INHABITATION			
			In the right of the way			
			1 (90m Balaka side)			
			Out of ROW			
			8 (90~250m Balaka side)			
			Main industry of inhabitant			
			Small-scale farming (maize, cassava, banana, tobacco)			
			LAND USE			
			NP/Wildlife Reserve & Forest			
			Nonexistent			
			SOCIAL INFRASTRUCTURE			
			Nonexistent			
			VULNERABLE SOCIAL GROUPS			
			Nonexistent			
			WATER RIGHTS			
			Nonexistent			
			FISHERIES RIGHTS			
			Nonexistent			
			LOCAL CONFLICT			
			Nonexistent			
			CULTURAL HERITAGE			
			Nonexistent			
			INFECTIOUS DISEASES HIV/AIDS			
			Interview with administration in Salima District Hospital (see interview result)			
			OTHERS(Disaster)			
			River edge was eroded and scored by flood_2001. River protection by gabion is under construction.			

ナンヤングカルバート 環境チェックシート (下流側)

Environmental and social check worksheet on each bridge

Name of Bridge 2: **Nanyangu Culvert DOWNSTREAM** (Temporary pipe culvert, width 7.5\*length 20.5\*height 6.0m)

SURVEY DATE	:29 Dec. 2004, 6 Jan. 2005	LOCATION NAME	NANKOKUWE CULVERT	LAT:S14°36'58.3"	LNG:E34°44'20.9"	ALT:638m
WEATHER	:SHOWER/CLOUDY	SURVEY AREA	600*200m=12ha (included river area, 300m each side from center of bailey bridge, 100m each side from center of existing road)			
SURVEYOR	:HIGA/MAKWINJA	SKETCH	:HIGA(No scale)			
			CONDITION OF EACH ENVIRONMENTAL ITEM		DOWNSTREAM AREA	
			AIR POLLUTION		No relation	
			WATER POLLUTION	River Dimension	See Topographic map	
				Flow	No flow due to dry	
				Turbidity, PH, COD	---	
			SOIL POLLUTION		No relation	
			WASTE		Quarry (Sharape, +30km distance), Borrow and Gravel Pit (Chingamba, +5km distance)	
			TRAFFIC ACCIDENT AND SECURITY SITUATION		Interview with Salima traffic police station (see interview result)	
			WATER USAGE		Irrigation	
			BIODIVERSITY	Animal Diversity	Interview with NRA Environmental Specialist and local inhabitant	
				Vegetation	Maize, Cassava, Banana, Tobacco	
				Endangered Species	Nonexistent	DELBERIGEA MELANOXYLON under the Malawi list (+200m Balaka side)
			INHABITATION	In the right of the way	0	
				Out of ROW	3(250m Salima side), 1(110m Balaka side)	
				Main industry of inhabitant	Small-scale farming (maize, cassava, banana)	
LAND USE	NP/Wildlife Reserve & Forest	Nonexistent				
	SOCIAL INFRASTRUCTURE		School(+350m Salima side)			
VULNERABLE SOCIAL GROUPS		Nonexistent				
WATER RIGHTS		Nonexistent				
FISHERIES RIGHTS		Nonexistent				
LOCAL CONFLICT		Nonexistent				
CULTURAL HERITAGE		Nonexistent				
INFECTIOUS DISEASES HIV/AIDS		Interview with administration in Salima District Hospital (see interview result)				
OTHERS(Disaster)		River edge was eroded and scored by flood 2001. River protection by gabion is under construction.				

# アンゴニカルバート チェックシート (上流側)

Environmental and social check worksheet on each bridge

Name of Bridge1: **Angoni Culvert UPSTREAM** (Temporary existing pipe culvert (width 16.5\*length 19.3\*height 2.6m))

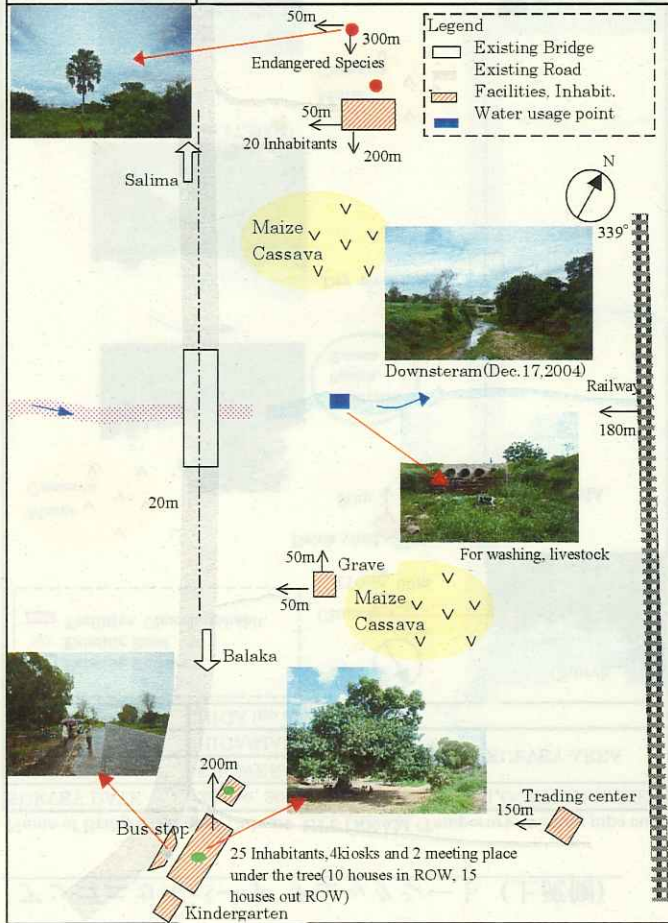
SURVEY DATE	:29 Dec. 2004, 6 Jan. 2005	LOCATION NAME	ANGONI CULVERT	LAT:S14°36'58.3"	LNG:E34°44'20.9"	ALT:638m
WEATHER	:SHOWER/CLOUDY	SURVEY AREA	600*200m=12ha (included river area, 300m each side from center of bailey bridge, 100m each side from center of existing road)			
SURVEYOR	:HIGA/MAKWINJA					
SKETCH	:HIGA (no scale)	CONDITION OF EACH ENVIRONMENTAL ITEM		UPSTREAM AREA		
	AIR POLLUTION		No relation			
	WATER POLLUTION		River Dimension	See Topographic map		
			Flow	No flow (puddles in river, visual survey, Dec.17,2004)		
			Turbidity,PH, COD	-		
	SOIL POLLUTION		No relation			
	WASTE		Quarry (Sharape, +10km distance), Borrow and Gravel Pit (Kalungama, +5km distance)			
	TRAFFIC ACCIDENT AND SECURITY SITUATION		Interview with Salima traffic police station (see interview result)			
	WATER USAGE		Washing, Water place for livestock			
	BIODIVERSITY		Animal Diversity	Interview with NRA Environmental Specialist and local inhabitant		
			Vegetation	Maize, Cassava, Banana, Papaya, Sugar cane		
			Endangered Species	Nonexistent		
	INHABITATION		In the right of the way	2 (200m Balaka side)		
			Out of ROW	13 (200m Balaka side)		
			Main industry of inhabitant	Small-scale farming		
	LAND USE		Farm land, inhabitation, Livestock's grazing area			
NP/Wildlife Reserve & Forest			Nonexistent			
SOCIAL INFRASTRUCTURE		Church(110m Salima side), Brick yard(90m Salima side), Bus stop(200m Balaka side)				
VULNERABLE SOCIAL GROUPS		Nonexistent				
WATER RIGHTS		Nonexistent				
FISHERIES RIGHTS		Nonexistent				
LOCAL CONFLICT		Nonexistent				
CULTURAL HERITAGE		Nonexistent				
INFECTIOUS DISEASES HIV/AIDS		Interview with administration in Salima District Hospital (see interview result)				
OTHERS (Disaster)		Road pavement, road embankment and river edge were eroded and scoured by flood in 2003.				

アンゴニカルバート チェックシート (下流側)

Environmental and social check worksheet on each bridge

Name of Bridge: Angoni Culvert, DOWNSTREAM (Temporary existing pipe culvert (width 16.5\*length 19.3\*height 2.6m))

SURVEY DATE	:29 Dec. 2004, 6 Jan. 2005	LOCATION NAME	ANGONI CULVERT	LAT:S14°36'58.3"	LNG:E34°44'20.9"	ALT:638m
WEATHER	:SHOWER/CLOUDY	SURVEY AREA	600*200m=12ha (included river area, 300m each side from center of bailey bridge, 100m each side from center of existing road)			
SURVEYOR	:HIGA/MAKWINJA					
SKETCH	:HIGA (no scale)	CONDITION OF EACH ENVIRONMENTAL ITEM		DOWN STREAM		



CONDITION OF EACH ENVIRONMENTAL ITEM		DOWN STREAM
AIR POLLUTION		No relation
WATER POLLUTION	River Dimension	See Topographic map
	Flow	No flow (puddles in river, visual survey, Dec.17,2004)
	Turbidity,PH, COD	
SOIL POLLUTION		No relation
WASTE		Quarry (Sharape, +10km distance), Borrow and Gravel Pit (Kalungama, +5km distance)
TRAFFIC ACCIDENT AND SECURITY SITUATION		Interview with Salima traffic police station (see interview result)
WATER USAGE		Washing, Water place for livestock
BIODIVERSITY	Animal Diversity	Interview with NRA Environmental Specialist and local inhabitant
	Vegetation	Maize, Cassava, Banana, Papaya, Sugar cane
	Endangered Species	Nonexistent
INHABITATION	In the right of the way	10 (200m Balaka side)
	Out of ROW	35 (200m Salima and Balaka side)
	Main industry of inhabitant	Small-scale farming, Kiosk, Trading
LAND USE	NP/Wildlife Reserve & Forest	Nonexistent
		Farm land, inhabitation, Livestock's grazing area
SOCIAL INFRASTRUCTURE		Bus stop, Meeting place, Kindergarten (250m Balaka side), Trading center, Kiosk(mini-bar & cafe)
VULNERABLE SOCIAL GROUPS		Nonexistent
WATER RIGHTS		Nonexistent
FISHERIES RIGHTS		Nonexistent
LOCAL CONFLICT		Nonexistent
CULTURAL HERITAGE		Nonexistent
INFECTIOUS DISEASES HIV/AIDS		Interview with administration in Salima District Hospital (see interview result)
OTHERS (Disaster)		Road pavement, road embankment and river edge were eroded and scoured by flood in 2003.