Appendix H: Cumulative Impact Assessment

February 2020

CONTENTS

TABLES

FIGURES

H1 SOURCES OF CUMULATIVE IMPACT

Table H1.1 presents the associated facilities that have been screened in to the cumulative impact assessment, and Table H1.2 shows the third-party developments that have been screened in to the cumulative impact assessment based on the criteria defined in Section 5 of the ESIA.

Table H1.1 Screened-In Associated Facilities

Project	Proponent	Description	Reference[2]
EACOP (East Africa Crude Oil Pipeline) Project	Total East Africa Midstream BV	**Uganda** The EACOP project in Uganda is a 296 km of 24 in.-diameter, insulated, electrically trace heated, buried pipeline from Kabaale to Uganda - Tanzania border. Components of the EACOP system in Uganda include: • 2 pumping stations with power provided from the Tilenga CPF • 15 mainline block valve stations • electrical substations along the route • 6.8 km of new or upgraded permanent access roads to pump stations. For the construction phase, the following will be established: • 2.4 km of new access roads and 5.9 km of upgraded roads • 4 main camp and pipe yards along the pipeline corridor to accommodate workers and store line pipe prior to distribution along the RoW. The Uganda EACOP project will require a total area of approximately 602 ha. **Tanzania** The EACOP project in Tanzania is a 1147-km-long, 24-in.-diameter, insulated, electrically trace heated, buried pipeline from the Uganda–Tanzania border to the marine storage terminal (MST) north of Tanga. Components of the EACOP system in Tanzania include: • four pumping stations • two standalone pressure reduction stations and a pressure reduction system within the MST • the MST • an offshore load out facility (LOF) comprising a 1.9 km trestle and a loading platform for transfer of oil to tankers • 49 standalone main line block valve stations, 3 standalone electric trace heating substations, 11 electric substations combined with main line block valve stations, and 7 electric substations combined with AGIs and MST	East African Crude Oil Pipeline Project: Uganda ESIA, 2018 East African Crude Oil Pipeline Project: Tanzania ESIA, 2018

Table H1.1 Screened-In Associated Facilities

Project	Proponent	Description	Reference[2]
		• roads: o 47 km of new and upgraded permanent access roads o 60 km of new and upgraded construction facility access roads • construction facilities o 12 main camps and pipe yards (MCPY5 through to MCPY16) o pipe coating facility. The Tanzania EACOP project will require a total area of approximately 4035 ha.	

Table H1.2 Screened-in Third Party Developments

ID[1]	Project	Proponent	District	Nearest KP	Approximate Distance from Pipeline (km)	Description	Reference[2]
Kingfisher Oil Project		CNOOC	Hoima	95	0	The Kingfisher oil project is on the southeast shoreline of Lake Albert and will consist of the following components: • the Kingfisher Development Area (KFDA) mainly on the Buhuka Flats: o four onshore well pads with total of 31 wells (20 producer wells and 11 water injection wells) o produced well fluids will be conveyed to the CPF through the buried infield flowlines. o CPF which includes oil separators, water treatment facilities, a water injection unit, a gas processing unit, an LPG	Information supplied by the Kingfisher project, including Scoping Report for the ESIA for Kingfisher Discovery Area, 2014

[1]The ID number is used to identify developments in the cumulative impact assessments in Section 8.

[2] This column lists the sources of information received on the development. This information has been used to identify and assess the impacts of the development in the cumulative impact assessments in Section 8.

Table H1.2 Screened-in Third Party Developments

ID[1]	Project	Proponent	District	Nearest KP	Approximate Distance from Pipeline (km)	Description	Reference[2]
						unit, oil storage tanks and power generation. • feeder pipeline: o 46 km,12 to 14-inch in diameter, insulated, trace heated, buried feeder oil pipeline from the CPF to a delivery point in Kabaale o At the delivery point, there will be metering of the crude oil, which will be piped either to the Kabaale Industrial Park to feed the refinery or, as required, exported through the EACOP line o An MCPY is close to EACOP's PS1 on the feeder pipeline • supporting facilities including construction and permanent camps, material yards, a jetty, an airstrip and roads The permanent right-of-way will be 10 m wide. Grazing of stock over the right of way will be	

Table H1.2 Screened-in Third Party Developments

ID[1]	Project	Proponent	District	Nearest KP	Approximate Distance from Pipeline (km)	Description	Reference[2]
						permitted, but cultivation and settlement will be prohibited.	
UG0A	Electricity transmission line from the Tilenga CPF to Kabaale	Uganda Electricity Transmission Company Limited **(**UETCL)	Hoima	0	0	A 132-kV transmission line from the upstream Tilenga development to the Kabaale Industrial Park. The line will evacuate excess power generated at the Tilenga CPF and import power to the Tilenga CPF when excess gas is reduced or depleted. The line will also be used to provide power to the Kabaale Industrial Park and surrounding areas. The transmission line is likely to be supported by steel towers. Installation of this type of transmission line typically involves: • clearance of the right of way • installation of the towers • installation of power stations • stringing of the overhead transmission line. A preliminary route is available.	Tilenga project shapefiles

Table H1.2 Screened-in Third Party Developments

ID[1]	Project	Proponent	District	Nearest KP	Approximate Distance from Pipeline (km)	Description	Reference[2]
UG 00	Bugungu Airstrip upgrade	Total E&P Uganda BV	Hoima	0	10.2	Airstrip upgrades at Bugungu as part of Tilenga upstream early works. Extension of existing strip by 300 m x 30 m will require site clearance, drainage works and excavation and transportation of murram to the airstrip site. Once operational, the airstrip may receive up to three flights per day, 6 days per week.	Tilenga Early Works Project Brief, 2017
UG 04	Kabaale International Airport	Uganda Civil Aviation Authority (UCAA) and International Civil Aviation Organisation (ICAO)	Hoima	94	1.6	The primary objective of Kabaale International Airport is to provide air access to the Kabaale region and particularly to provide capacity for large cargo aircraft which will bring in equipment and tools for construction of a proposed refinery and petrochemical plants. Subsequently, it is expected that the airport will offer passenger services domestically and internationally. The airport's runway will be 3500 m long and 75 m wide and be constructed within the 29-km^2 area of land already	ESIA for the Proposed Kabaale International Airport, 2016

Table H1.2 Screened-in Third Party Developments

ID[1]	Project	Proponent	District	Nearest KP	Approximate Distance from Pipeline (km)	Description	Reference[2]
						acquired by the government for the Kabaale Industrial Park. Approximately 174 acres of the land will be required for the airport facilities including the runway, air traffic control tower, fuel farm and terminal buildings. Between 50 and 4000 workers will be hired over a 3-year construction period. A workers' camp site will be established within the site boundary for the construction phase.	
UG 05	Transmission lines to Kabaale Airport	Uganda Electricity Transmission Company Limited (UETCL)	Hoima	86	3.4	Two 33-kV transmission lines associated with the Kabaale Airport (see UG04). The transmission lines will be constructed within a 10-m corridor (way leave) from the existing road reserve which runs parallel to the proposed transmission line route. The transmission lines require a 5-m RoW. Power transmission line 1 will start from Hydromax dam (Kabalega hydropower station)	ESIA for two 33 kV Power Transmission Lines for the Proposed Kabaale International Airport, 2016

Table H1.2 Screened-in Third Party Developments

ID[1]	Project	Proponent	District	Nearest KP	Approximate Distance from Pipeline (km)	Description	Reference[2]
						through Kaiso-Tonya road to the airport site. The total distance of this line along the existing road network is 24 km. Power transmission line 2 will start in Kiziranfumbi and follow the Kiziranfumbi-Kabaale road to the airport site for approximately 18 km. The two power transmission lines will be 33 kV bare conductor overhead lines to be connected on wooden poles. Construction involves clearance of the 10 m corridor, installation of the poles and conductor stringing. The project is expected to have a construction workforce of about 20 people, of which half will be casual labourers.	

Table H1.2 Screened-in Third Party Developments

ID[1]	Project	Proponent	District	Nearest KP	Approximate Distance from Pipeline (km)	Description	Reference[2]
UG 07	Refinery	Government of Uganda	Hoima	94	0	60,000-barrels-per-stream-day hydrocracker and coker refinery at Kabaale within the 29-km^2 area of land already acquired by the government for the Kabaale Industrial Park. Key project components will include a tankage area, process units, utilities, buildings, flare area and expansion area.	Environmental Baseline Report for the Proposed Oil Refinery
UG 08	Hoima–Buloba Pipeline	Government of Uganda	Hoima	95	0	210-km pipeline for transporting refined petroleum products from the refinery in Hoima (see UG07) to the distribution terminal in Buloba, Kampala.	Ramboll Group website
UG 15	169 km of road upgrades	Uganda National Roads Agency (UNRA)	Buliisa and Hoima	0 and 7.5	Crosses the feeder pipeline	169 km of road upgrades from gravel to bitumen to enable first oil production in Uganda. 122 km of road upgrades fall within Murchison Falls National Park (MFNP) in the districts of Nwoya and Masindi, while 47 km traverse community areas in Buliisa and Masindi districts. Includes the following road sections:	ESIS for the Upgrading of; Paraa-Pakwach; Kisanja - Park Junction; Sambiya-Murchison Falls; Buliisa-Paraa; Wanseko-Kasenyi-Kirango-Bugungu camp Roads and associated Bridges (169km), 2017

Table H1.2 Screened-in Third Party Developments

ID[1]	Project	Proponent	District	Nearest KP	Approximate Distance from Pipeline (km)	Description	Reference[2]
						• Buliisa–Paraa road, which starts in Buliisa town and traverses to the Bugungu gate of MFNP to the Victoria Nile ferry crossing at Paraa (38 km) • Wanseko–Kasenyi–Kirango–Bugungu camp road (23 km) • Kisanja Park junction road (72 km) • Sambiya–Murchison Falls road from the northern bank of Sambiya River to the southern bank view of the Murchison Falls (12 km) • Paraa–Pakwach road from the northern bank of Paraa (ferry crossing) to the Karuma River Pakwach road near to Pakwach Bridge (24 km). It is proposed that the existing roads will be widened and have a maximum 50-m RoW inclusive of a maximum 7-m two-lane carriageway and shoulder width of 1–2 m.	

Table H1.2 Screened-in Third Party Developments

ID[1]	Project	Proponent	District	Nearest KP	Approximate Distance from Pipeline (km)	Description	Reference[2]
UG 19	Lot 4 critical oil road upgrades	UNRA	Hoima	95	3	The proposed upgrade of three of the critical oil roads in lot 4: • R4 (Kabaale–Kiziranfumbi, 26 km) • R5 (Kaseeta Lwera via Bugoma Forest, 16 km) • R7 (Hohwa-Kyarushesha-Karokarungi, 25 km). The roads will be upgraded from gravel to paved standard covering a total distance of 67 km. The carriageway will be increased from 4.5 m to a maximum of 12 m. The roads will have a maximum RoW of 50 m.	ESIA for the Proposed Upgrade of Lot 4 Critical Oil Roads, 2017
UG 23	Waki Hydropower plant	Hydromax (Nkusi) Limited	Hoima	47.5	2.7	5 MW (6,700 hp) mini hydroelectric power station on the Waki River near Lake Albert	Project Brief for the Proposed Batching Plant at Waki Site
UG 24	Concrete batching plant	Hydromax (Nkusi) Limited	Hoima	47.5	1.9	Concrete batching plant to supply Waki hydropower project (see UG23)	Project Brief for the Proposed Batching Plant at Waki Site

NOTES: [1] The ID number is used to identify developments in the cumulative impact assessments in Section 8.

[2] This column lists the sources of information received on the development. This information has been used to identify and assess the impacts of the development in the cumulative impact assessments in Section 8.

H2 LOCATION OF SCREENED-IN THIRD-PARTY DEVELOPMENTS

Figure H2.1 presents the location of the screened-in associated facility and third-party developments along the Tilenga feeder pipeline.

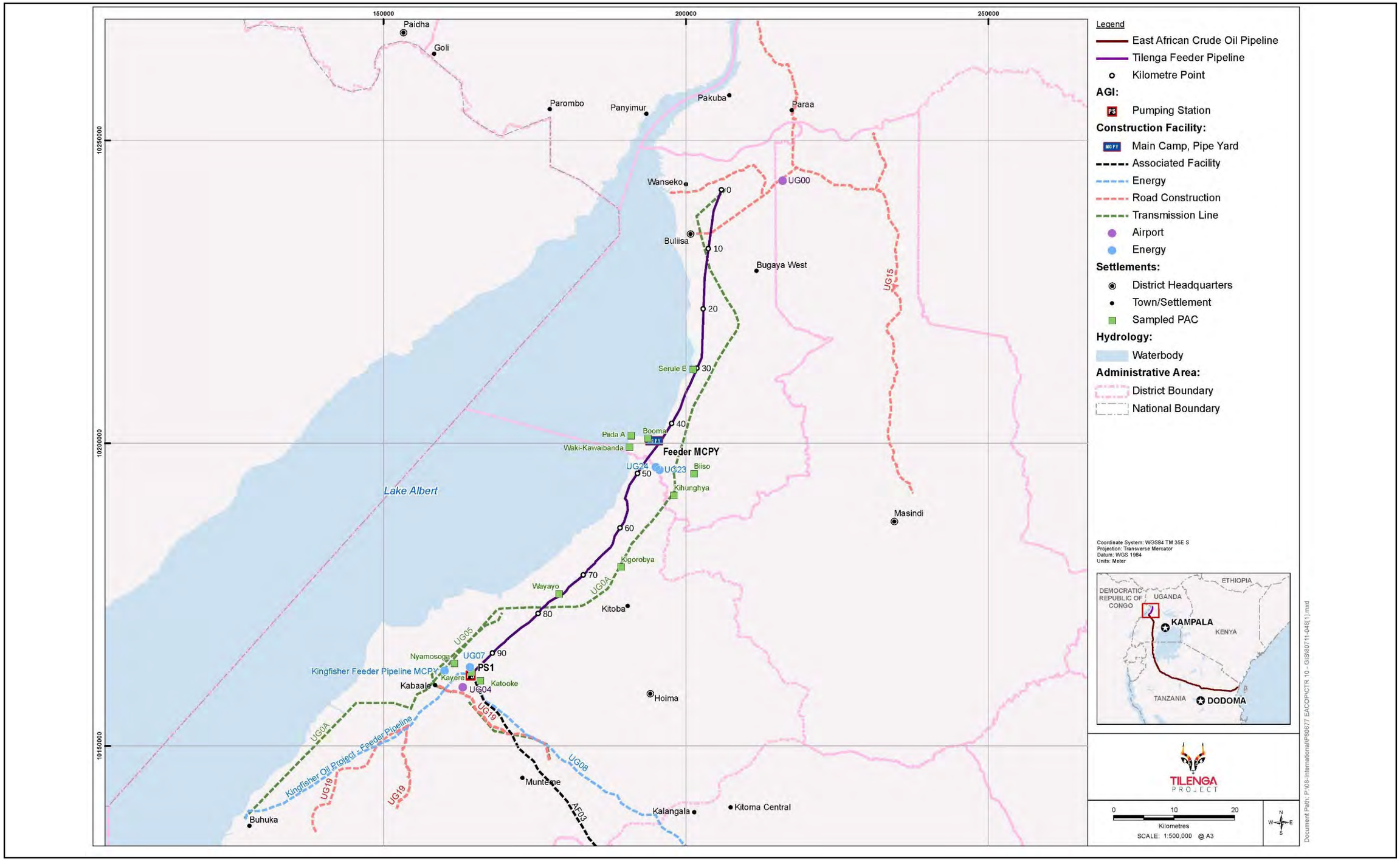

Figure H2.1 Screened-In Associated Facility and Third-Party Developments along the Tilenga Feeder Pipeline

H3 CUMULATIVE IMPACTS ASSESSMENT SCREENING MATRICES

Table H3.1 present the cumulative impacts and assessment screening matrix for associated facilities and the Tilenga feeder pipeline, and Table H3.2 presents the matrix for third-party developments and the Tilenga feeder pipeline.

The assessment screening categories are described in Sections 5.6.2.5 and 8.1.2 and presented below in Table H3.1 and Table H3.2.

Table H3.1 Cumulative Impacts Assessment Screening Matrix: Associated Facility Interactions

Source of Potential Cumulative Impact	EACOP Project	Rationale for Screening in to the CIA[2]
Biodiversity		
Habitats of conservation importance		No interactions identified, therefore no cumulative impact.
Flora and fauna species of conservation importance		No interactions identified, therefore no cumulative impact.
Legally protected, internationally or nationally recognised onshore areas		There are no cumulative impacts identified that are likely to affect the integrity or ecological function of a protected area.
Physical Environment		
Soils	Category 3	Potential cumulative impact on soil around KP95, where the Tilenga feeder pipeline and the EACOP project converge at the manifold at EACOP's pumping station (PS1). The overlapping AOI is limited in extent and therefore the Tilenga feeder contribution to residual cumulative impacts is negligible.
Surface water: watercourses, wetlands and waterbodies (ephemeral and permanent)		
Wambabya River watercourse crossing	Category 3	Potential cumulative impact on an ephemeral tributary of the Wambabya River from the Tilenga feeder pipeline and the permanent access road to EACOP's PS1 resulting in reduced water quality owing to increased suspended sediment concentrations and the accidental release of oil and chemicals. Both projects have committed to reinstatement and therefore the contribution to a residual cumulative impact is negligible.
Abstraction		No interactions identified, therefore no cumulative impact.
Groundwater: Abstraction		No interactions identified, therefore no cumulative impact.
Groundwater: Discharge	Category 3	Potential cumulative impact on groundwater around KP95, where the Tilenga feeder pipeline and the export pipeline converge at the manifold at EACOP's PS1. Potential cumulative impacts are from accidental releases of contaminants which may migrate to the groundwater during the construction and operation of the projects where activities are undertaken above the same aquifer. This will lead to localised short-term deterioration of groundwater quality. Any potential releases of contaminants are likely to be small in volume, localised to the working area or plant being used and readily visually observable, allowing immediate emergency spill response actions. The projects will implement pollution prevention measures and therefore the contribution to a residual cumulative impact is negligible.
Landscape		No interactions identified, therefore no cumulative impact
Air quality	Category 1	Potential cumulative impact on air quality around KP95, where the Tilenga feeder pipeline and the export pipeline converge at the manifold at EACOP's PS1. Construction of the projects will generate dust resulting in cumulative temporary deterioration of local air quality. See Section 8.8.6
Climate	Category 1	The climate VEC has a global AOI and in effect, every source of GHG emissions is a source of cumulative impact. See Section 8.21.5
Acoustic environment	Category 1	Construction activities may incrementally temporarily affect the local acoustic environment where the Tilenga feeder pipeline and the EACOP project AOIs overlap. See Section 8.9.6

[2]Category definitions:

- Category 1: High risk of potential cumulative impacts and the Tilenga feeder pipeline is an important contributor to the cumulative impacts on a VEC.
- Category 2: High risk of potential cumulative impacts but the Tilenga feeder pipeline is a small contributor to the cumulative impacts on a VEC.
- Category 3: The residual Tilenga feeder pipeline impacts have a limited contribution to cumulative impacts.

Table H3.1 Cumulative Impacts Assessment Screening Matrix: Associated Facility Interactions

Source of Potential Cumulative Impact	EACOP Project	Rationale for Screening in to the CIA[2]
Socio-Economic and Health		
Local economy	Category 1	Cumulative impacts are predicted on employment and economic development. See Section 8.11.6.
Land-based livelihoods	Category 1	Cumulative impacts are predicted from the loss of land. See Section 8.12.6.
Lake and river-based livelihoods		No interactions identified, therefore no cumulative impact.
Land and property	Category 1	Cumulative impacts are predicted from land speculation and conflicts. See Section 8.14.6.
Workers' health, safety and welfare		No interactions identified, therefore no cumulative impact.
Social infrastructure and services	Category 1	Cumulative impacts are predicted from increased traffic congestion on common transport routes. See Section 8.16.6.
Community health	Category 1	The combined use of transport routes by the Tilenga feeder pipeline and EACOP increases the potential spread of communicable diseases as main transport route rest stops are known for being areas of potentially increased risk of sexually transmitted diseases. See Section 8.17.6.
Community safety, security and welfare	Category 1	Cumulative impacts are predicted from PIIM from the Tilenga pipeline and EACOP projects and impacts on community dynamics from changes in social climate in the PACs. See Section 8.18.6.
Cultural heritage: Tangible		No interactions identified, therefore no cumulative impact.
Cultural heritage: Intangible		No interactions identified, therefore no cumulative impact.

NOTES: Blue shading = Interaction. White shading = No interaction. Yellow shading = Transboundary VEC

Table H3.2 Cumulative Impacts Assessment Matrix: Third-Party Interactions

VEC	Source of Potential Cumulative Impact											Rationale for Screening in to the CIA[3]
		UG0A	UG00	UG04	UG05	UG07	UG08	UG15	UG19	UG23	UG24	
	Kingfisher Oil Project	Transmission Line Tilenga CPF to Kabaale	Bugungu Airstrip	Kabaale Airport	Transmission Line to Kabaale Airport	Refinery, Hoima	Hoima Buloba Refined Product Pipeline	169 km Road Upgrades	Lot 4 Critical Oil Road Upgrades	Waki Hydro Power Project	Waki Concrete Batching Plant	
Biodiversity												
Habitats of conservation importance												No interactions identified, therefore no cumulative impact.
Flora and fauna species of conservation importance												
Bugungu Wildlife Reserve		Cat 2										Construction activities for the Tilenga feeder pipeline and the overhead transmission line may lead to disturbance to species in the Bugungu Wildlife Reserve. See Section 8.3.6.
Legally protected, internationally or nationally recognised onshore areas												Potential cumulative impacts on habitats and species of conservation importance within protected areas are described in Sections 8.2.6 and 8.3.6. There are no cumulative impacts identified that are likely to affect the integrity or ecological function of a protected area.

[2]Category definitions:

- Category 1: High risk of potential cumulative impacts and the Tilenga feeder pipeline is an important contributor to the cumulative impacts on a VEC.
- Category 2: High risk of potential cumulative impacts but the Tilenga feeder pipeline is a small contributor to the cumulative impacts on a VEC.
- Category 3: The residual Tilenga feeder pipeline impacts have a limited contribution to cumulative impacts.

Table H3.2 Cumulative Impacts Assessment Matrix: Third-Party Interactions

VEC	Source of Potential Cumulative Impact											Rationale for Screening in to the CIA[3]
		UG0A	UG00	UG04	UG05	UG07	UG08	UG15	UG19	UG23	UG24	
	Kingfisher Oil Project	Transmission Line Tilenga CPF to Kabaale	Bugungu Airstrip	Kabaale Airport	Transmission Line to Kabaale Airport	Refinery, Hoima	Hoima Buloba Refined Product Pipeline	169 km Road Upgrades	Lot 4 Critical Oil Road Upgrades	Waki Hydro Power Project	Waki Concrete Batching Plant	
Physical Environment												
Soil						Cat 3		Cat 3	Cat 3			The Tilenga feeder pipeline and the SCIs are dispersed over a large area, across a variety of soil types and have relatively small footprints. Overlapping AOIs are limited in extent and therefore contribution to cumulative impacts are negligible.
Surface Water												
Sambiye River crossing								Cat 3				The Buliisa–Paraa road crosses the Sambiye River approx. 0.2 km upstream of the Tilenga feeder crossing. Construction of the feeder pipeline and the road upgrade are potential sources of sediment and accidental releases of oil and chemicals, which may impact water quality in the Sambiye River. With mitigation the contribution to cumulative impacts are negligible.
Waki River crossing										Cat 3	Cat 3	The Waki hydropower plant and concrete batching plant are situated 2.8 km upstream of the Tilenga pipeline crossing (KP46.9). Construction of the feeder pipeline, the hydropower and concrete batching plants are potential sources of sediment and accidental releases of oil and

Table H3.2 Cumulative Impacts Assessment Matrix: Third-Party Interactions

VEC	Source of Potential Cumulative Impact											Rationale for Screening in to the CIA[3]
		UG0A	UG00	UG04	UG05	UG07	UG08	UG15	UG19	UG23	UG24	
	Kingfisher Oil Project	Transmission Line Tilenga CPF to Kabaale	Bugungu Airstrip	Kabaale Airport	Transmission Line to Kabaale Airport	Refinery, Hoima	Hoima Buloba Refined Product Pipeline	169 km Road Upgrades	Lot 4 Critical Oil Road Upgrades	Waki Hydro Power Project	Waki Concrete Batching Plant	
												chemicals, which may impact water quality in the Waki River. The projects have committed to good construction practices and site management measures to ensure sediment and contaminates do not enter the Waki River therefore the contribution to a residual cumulative impact is negligible.
Wambabya River crossing			Cat 3	Cat 3	Cat 3							Potential cumulative impact on an ephemeral tributary of the Wambabya River which flows to the Wambabya River 4.4 km downstream of the Tilenga feeder pipeline. Construction of the feeder pipeline and the SCIs are potential sources of sediment and accidental releases of oil and chemicals, which may impact water quality in the Wambabya River. Soil management practices and pollution control measures will be implemented and therefore the contribution to a residual cumulative impact is negligible.
Surface Water: Abstraction												No interactions identified, therefore no cumulative impact.
Groundwater: Abstraction												No interactions identified, therefore no cumulative impact.

Table H3.2 Cumulative Impacts Assessment Matrix: Third-Party Interactions

VEC	Source of Potential Cumulative Impact											Rationale for Screening in to the CIA[3]
		UG0A	UG00	UG04	UG05	UG07	UG08	UG15	UG19	UG23	UG24	
	Kingfisher Oil Project	Transmission Line Tilenga CPF to Kabaale	Bugungu Airstrip	Kabaale Airport	Transmission Line to Kabaale Airport	Refinery, Hoima	Hoima Buloba Refined Product Pipeline	169 km Road Upgrades	Lot 4 Critical Oil Road Upgrades	Waki Hydro Power Project	Waki Concrete Batching Plant	
Groundwater: Discharge	Cat 3					Cat 3		Cat 3	Cat 3		Cat 3	Any potential releases of contaminants from the Tilenga feeder pipeline and the SCIs are likely to be small in volume, localised to the working area or plant being used and readily visually observable, allowing immediate emergency spill response actions. There will not be a reduction in groundwater quality and potential cumulative impacts to groundwater are negligible.
Landscape												No interactions identified, therefore no cumulative impact
Air quality		Cat 1						Cat 1				Construction of the Tilenga feeder pipeline and the SCIs will generate dust resulting in cumulative deterioration of local air quality. See Section 8.8.6
Acoustic environment		Cat 1						Cat 1				Construction activities may incrementally temporarily affect the local acoustic environment where the Tilenga feeder pipeline project and the SCI AOIs overlap. See Section 8.9.6
Climate												The climate VEC has a global AOI and in effect, every source of GHG emissions is a source of cumulative impact. See Section 8.21.5.

Table H3.2 Cumulative Impacts Assessment Matrix: Third-Party Interactions

VEC	Source of Potential Cumulative Impact											Rationale for Screening in to the CIA[3]
		UG0A	UG00	UG04	UG05	UG07	UG08	UG15	UG19	UG23	UG24	
	Kingfisher Oil Project	Transmission Line Tilenga CPF to Kabaale	Bugungu Airstrip	Kabaale Airport	Transmission Line to Kabaale Airport	Refinery, Hoima	Hoima Buloba Refined Product Pipeline	169 km Road Upgrades	Lot 4 Critical Oil Road Upgrades	Waki Hydro Power Project	Waki Concrete Batching Plant	
Socio-economic and Health												
Local economy	Cat 1	Cat 1		Cat 2	Cat 1	Cat 2	Cat 1					Cumulative impacts are predicted on employment and economic development. See Section 8.11.6.2
Land-based livelihoods	Cat 1	Cat 1		Cat 2	Cat 1	Cat 2	Cat 1					Cumulative impacts are predicted from the loss of land. See Section 8.12.6.2
Lake and river-based livelihoods												No interactions identified, therefore no cumulative impact.
Land and property	Cat 1	Cat 1		Cat 2	Cat 1	Cat 2	Cat 1	Cat 1				Cumulative impacts are predicted from land speculation and conflicts. See Section 8.14.6.2
Workers' health, safety and welfare												No interactions identified, therefore no cumulative impact.
Social infrastructure and services	Cat 1	Cat 1		Cat 2	Cat 1	Cat 2	Cat 1	Cat 1				Cumulative impacts are predicted from increased traffic congestion on common transport routes See Section 8.16.6.2
Community health	Cat 1	Cat 1		Cat 2	Cat 1	Cat 2	Cat 1	Cat 1				The combined use of transport routes by both EACOP and SCIs increases the potential spread of communicable diseases as main transport route rest stops are known for being areas of potentially increased risk of sexually transmitted diseases (STDs). See Section 8.17.6.2

Table H3.2 Cumulative Impacts Assessment Matrix: Third-Party Interactions

VEC	Source of Potential Cumulative Impact											Rationale for Screening in to the CIA[3]
		UG0A	UG00	UG04	UG05	UG07	UG08	UG15	UG19	UG23	UG24	
	Kingfisher Oil Project	Transmission Line Tilenga CPF to Kabaale	Bugungu Airstrip	Kabaale Airport	Transmission Line to Kabaale Airport	Refinery, Hoima	Hoima Buloba Refined Product Pipeline	169 km Road Upgrades	Lot 4 Critical Oil Road Upgrades	Waki Hydro Power Project	Waki Concrete Batching Plant	
Community safety, security and welfare	Cat 1	Cat 1		Cat 2	Cat 1	Cat 2	Cat 1	Cat 1				Cumulative impacts are predicted from PIIM from the EACOP project and the SCIs and impacts on community dynamics from changes in social climate in the PACs. See Section 8.18.6.2
Cultural heritage: Tangible												No interactions identified, therefore no cumulative impact.
Cultural heritage Intangible												No interactions identified, therefore no cumulative impact.

NOTES: Blue shading = Interaction. White shading = No interaction. Yellow shading = Transboundary VEC

H4 SCREENED-OUT SOURCES OF CUMULATIVE IMPACT

Table H4.1 presents the associated facilities for the Tilenga feeder pipeline that have been screened out of the cumulative impact assessment, and Table H4.2 shows the third-party developments that have been screened out of the cumulative impact assessment based on the criteria defined in Section 5 of the ESIA.

Table H4.1 Screened-Out Associated Facilities

ID	Project	Proponent (Where Available)	Description
AF05	Waste management facilities, concrete batch plants and borrow pits	Total E&P Uganda BV	These facilities are considered associated facilities where they meet all of the following criteria: • facility was not in existence before the project or expanded because of the project • facility is not viable as a business after the project. Locations are not currently defined and therefore screened out of CIA.

Table H4.2 Screened-Out Third-Party Developments

ID	Project	Proponent (Where Available)	Description	Reason for Screening Out[4]
UG01	Piped water systems	Not available	Construction of piped water systems described in the subcounty development plans	Subcounty chiefs and districts confirmed that, other than the administrative boundaries for the proposed projects presented in the development plans, specific locations are only determined at the implementation phase, i.e., when the budget has been approved and money allocated. Coordinates and detailed information therefore not available.
UG02	Latrine construction and borehole drilling	Not available	Latrine construction and borehole drilling	Subcounty chiefs and districts confirmed that, other than the administrative boundaries for the proposed projects presented in the development plans, specific locations are only determined at the implementation phase, i.e. when the budget has been approved and money allocated. Coordinates and detailed information therefore not available.
UG03	Large-scale farming developments	Oola Loilm Farm and Amatheon AGRI Uganda Limited	Large-scale farming developments Oola Lolim Farm and Amatheon AGRI Uganda Limited, which together cover over 4000 acres of land located in Wii Anaka.	No further information available. It was therefore not reasonably defined and thus screened out.

[4] Screened-out developments did not meet the following criteria (as described in Section 5 Methodology):

1. Is the development reasonably defined, as described in IFC Performance Standard 1?
2. Is the development reasonably predictable or a foreseeable future development, as defined in the IFC CIA Handbook?
3. What is the nature of development?
4. Do the Tilenga feeder pipeline VEC AOIs overlap with the third-party development AOIs?

Table H4.2 Screened-Out Third-Party Developments

ID	Project	Proponent (Where Available)	Description	Reason for Screening Out[4]
UG09	Sugar processing plant	Bwendero Dairy Farm Limited (BDF)	Sugar cane factory on an area of approximately 7.9 acres. The project will include clearing of land, construction of the building facilities and associated infrastructure, and installation of machinery for the sugar cane milling process. The facility will process 500 t of sugar cane per day.	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs
UG10	Biogas power plant	Bwendero Dairy Farm Limited (BDF)	Construction and operation of a biogas plant that utilises spent wash feedstock for steam and power generation for use at the sugar processing plant (see UG09). The land requirement for the biogas plant is 1.24 acres within the Bwendero Farm (UG09) boundary.	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs
UG11	Ecotourism lodge	Uganda Jungle Lodge	Construction, installation and operation of Bugoma Jungle Lodge for the development of an ecotourism site in Kabwoya	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs
UG13	Boma Ground upgrade	Ministry of Land, Housing and Urban Development, Government of Uganda	Hoima Boma Grounds is a public open space used for entertainment and ceremonial functions. This project involves the renovation and upgrade of Boma Grounds, located within Hoima Municipality	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs

Table H4.2 Screened-Out Third-Party Developments

ID	Project	Proponent (Where Available)	Description	Reason for Screening Out[4]
UG14	Abattoir	Ministry of Land, Housing and Urban Development, Government of Uganda	Construction of a modern abattoir within Hoima municipality funded by World Bank	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs
UG18	Masindi–Biiso road upgrade	UNRA	The Masindi-Biiso road (43 km) is one of the critical oil roads that require upgrade and will be developed into a paved road with a right of way 50 m and carriage way of 7min a 50-m right-of-way (RoW). The road is currently an earth road.	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs
UG27	Thermal power plant	Albatross Energy and Uganda Electricity Transmission Company Limited (UETCL)	230-MW oil and gas fired power station at Itara, Kibingo Ward, Busisi, Hoima using crude oil and natural gas from the Albertine Graben.	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs
UG28	Electricity transmission line upgrade	Umeme Limited	Construction of 132/33-kV substations and overhead lines and poles in Hoima district. The project will involve the installation of the following lines: 1. 4 × 33-kV, AAAC 150, 25.6-km integration lines from Hoima-UETCL substation. 2. 4 × 33-kV, 185-mm^2 1C, 2.4-km cables to be laid from the feeder bays to the overhead termination points	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs

Table H4.2 Screened-Out Third-Party Developments

ID	Project	Proponent (Where Available)	Description	Reason for Screening Out[4]
			3. 1 × 33-kV, 185-mm^2 3C, 1.9-km cable to be laid where overhead power line installation is not possible due to wayleave issues 4. 4 × 11-kV, 185-mm^2 3C, 1-km cables to be laid where both 33-kV and 11-kV overhead lines intersect 5. 4 × 33-kV bays at Hoima-UETCL substation The RoW will be 5 m either side of the power lines. Construction will involve 60 workers and will include: • land clearance • pole pit excavation, pole installation and backfill • cable installation.	
UG29	Solar photo-voltaic (PV) plant	Cambridge Clean Energy (CCC)	Construction of a 30-kW mini off-grid solar-PV power generation plant and 3 km distribution network in Sebagoro Village, Kabwoya Subcounty. Footprint required is 30 m × 30 m. Proposed site is greenfield land with an existing access road. There will be no deforestation, relocation of facilities or resettlement required. Construction will involve: • vegetation clearance • installation of the PV panels on piled supports	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs

Table H4.2 Screened-Out Third-Party Developments

ID	Project	Proponent (Where Available)	Description	Reason for Screening Out[4]
			• trenching for buried AC/DC cables • installation of a 40-ft modified shipping container on concrete foundations to house battery and inverter • pole installation and cable stringing. Project design life is minimum 10 years.	
UG30	Hoimo hydropower plant	Uganda Energy Credit Capitalisation (UECC)	The Hoimo hydroelectricity power project is a 3312-kW mini hydropower plant on the River Hoimo, in Buseruka, Hoima. The weir will be located in the village of Kasenyi and the powerhouse and generation unit will be located in Hoimo Village. Part of the Western Uganda Mini-Hydropower & Rural Electrification Project (the ORIO Project). Construction activities will include: • vegetation clearance • earthworks including ground levelling, excavations and blasting • installation of transmission lines. Construction labour force of 100, with majority comprised of local labourers. Project design life is 50 years. Thirty workers will be employed during operation which includes maintenance of equipment and keeping the waterworks clear of sediment and debris.	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs

Table H4.2 Screened-Out Third-Party Developments

ID	Project	Proponent (Where Available)	Description	Reason for Screening Out[4]
UG31	Access road construction	PA Technical Services	A 4.4-km access road to the Nkusi Hydropower plant	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs
UG32	Sewage waste disposal lagoon	Hoima Regional Referral Hospital	A proposed lagoon to treat and handle sewage generated from the hospital under aerobic conditions	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs
UG33	Hoima-Kinyara transmission line	Uganda Electricity Transmission Company Limited (UETCL)	50-km-long Hoima–Kinyara 220-kV electricity transmission line. The segment of the Hoima-Kinyara transmission line (HK 301-HK 306) is situated mainly in Hoima District (approximately 30 km) and partly in Masindi district (approximately 6 km). The transmission line will be constructed using 33-m-high lattice towers at intervals of approximately 5 km. Construction activities will entail: • clearance of the right of way (5 m wide) • installation of the towers • stringing of the overhead transmission line. • estimated construction workforce of 100 people. The project is part of the World Bank financed Electricity Sector Development Project.	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs

Table H4.2 Screened-Out Third-Party Developments

ID	Project	Proponent (Where Available)	Description	Reason for Screening Out[4]
UG37	Ayago power station	Uganda Electricity Generation Company Limited (UEGCL)	A proposed 840-MW power station along the Victoria Nile at Ayago, upstream of Murchison Falls National Park. UEGCL was appointed by the Ministry of Energy and Mineral Development as the implementing agency working on behalf of the Government of Uganda.	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs
UG40	Solar-powered boreholes for water supply	Not available	Three solar-powered boreholes have been planned for Lwengo Town. 50,000-litre storage facilities are to be set up for communal use, mainly on the grounds of clinics, churches and schools and 50 boreholes will be rehabilitated.	No further information available therefore considered not reasonably defined or predictable
UG42	Piped water system	National Water and Sewerage Corporation	Infrastructure service delivery plans and performance improvement programmes.	No further information available therefore considered not reasonably defined or predictable
UG44	ICT infrastructure	Government of Uganda (GoU)	1536.39 km of buried optical fibre cable to be laid across the country to build the National Data Transmission Backbone.	Tilenga feeder pipeline VEC AOIs unlikely to overlap with the SCI AOIs