





**WATER RESOURCES DEVELOPMENT PROJECT
SAFEGUARDS ACTION PLAN (CHIBALASHI AND KATEMBULA)
March 2019**


CHIBALASHI DAM, LUAPULA PROVINCE

Safeguards Aspect	Risks	Action Required	Responsibility	Time Frame	Status of Compliance
<p>Flora</p>	<p>Unstable embankments due to loss of vegetation</p>	<p>The embankment at Chibalashi Dam should be revegetated with native grass to help stabilise the dam and minimize soil erosion.</p>  <p>Figure 1: Revegetation of Embankment in Chibalashi, Luapula Province</p>	<p>Ministry of Water Development Sanitation and Environmental Protection.</p>	<p>This action should be confirmed by 15th March 2019</p>	<p>This action was followed up with a site visit on 25th February 2019 and the embankment has shown extensive revegetation.</p>


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		 <p data-bbox="680 716 1213 769">Figure 2: Extent of Revegetation of embankment in Chibalashi</p>			
	<p data-bbox="436 805 653 927">Increased levels of soil erosion after demobilization by the contractor</p>	<p data-bbox="680 805 1297 927">A post demobilization site walk should be undertaken to ensure all areas that experienced vegetation loss during the construction of the dam are identified and revegetated.</p>		<p data-bbox="1558 805 1749 1089">A post construction survey of vegetation cover at Chibalashi should be undertaken by 15th March 2019</p>	<p data-bbox="1774 805 2024 1219">This action was followed up with a site visit on 25th February 2019 and the embankment the contractor has demobilized. Most of the post construction areas have regenerated with vegetation cover after the recent rainy season.</p>


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Fauna	Increased human - animal conflict after dam completion due to increased reptile population such as crocodiles.	<ul style="list-style-type: none"> Engage the Dam Committee members that will operate the dam in the sensitization of the communities. The dam committee should record all incidences of human – animal conflict and share the records with the National Parks and Wildlife Department 	Ministry of Water Development Sanitation and Environmental Protection. Ministry of Water with the support National Parks and Wildlife Department	Engage members of the Dam committee by 15 th March 2019	A letter was sent by the Department of Water Resources and Development on 14 th March 2019 to the Departments of Agriculture, Livestock and Fisheries.
	Incidents of poaching around the inundated area for animals trying to access water.	Engage the Dam Committee in Chibalashi and the local National Parks and Wildlife Department on protecting wildlife		This action should be undertaken by 15 th March 2019	A letter was sent by the Department of Water Resources and Development on 14 th March 2019 to the Departments of Agriculture, Livestock and Fisheries.
Community Safety and Access to Services	Increased incidences of drowning and accidents due inundation and lack of access	<ul style="list-style-type: none"> Ensuring the boat currently ferrying affected communities are reliable and available Expedite the Construction of an access bridge (the construction of an access bridge was not part of the dam contract) 	Ministry of Water Development Sanitation and Environmental Protection	Current condition of the boats and operations should be documented by 15 th March 2019	This action was followed up with a site visit on 25 th February 2019 and revealed that the boat to ferry affected communities is still operational. However, the long-term solution is the construction of an access foot bridge.


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		 <p data-bbox="680 711 1192 737">Figure 3: The Boat at ferry residents in Chibalashi</p>  <p data-bbox="680 1214 1205 1240">Figure 4: Boat Docking on the Banks of the River.</p>			
Water and Sanitation	Increased incidences of	Engage Rural Health Centers (RHC) and the Local Dam Committee in establishing a reporting system	Ministry of Water Development Sanitation and	The Ministry of Water will formally send a	A letter was sent by the Department of Water Resources and

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	waterborne diseases.	should they be reported increased incidents of waterborne diseases.	Environmental Protection and the Ministry of Health	letter to the Ministry of Health by 15 th March 2019	Development on 14 th March 2019 to the Departments of Agriculture, Livestock and Fisheries
Health	Increased incidence of vector-borne diseases such as Malaria	Engage Rural Health Centers (RHC) and the Local Dam Committee in establishing a reporting system should they be reported increased incidents of vector-borne diseases such as malaria.			
Fisheries	Introduction of invasive species during fish restocking in the over fished Chibalashi River.	Engage with the Department of Fisheries and Dam Committee to ensure any aquaculture activities or the introduction of nonnative fish species is done in consultation with the fisheries department.	Ministry of Water Development Sanitation and Environmental Protection and the Fisheries Department	The Ministry of Water will formally send a letter to the Fisheries Department by 15 th March 2019	A letter was sent by the Department of Water Resources and Development on 14 th March 2019 to the Departments of Agriculture, Livestock and Fisheries
Decommissioning & Demobilization	Abandoned structures at the construction site and polluted soils	 <p>Figure 5: Handover/Demolition of Structure left by the Contractor</p>	Ministry of Water Development Sanitation and Environmental Protection	This action should be confirmed before 15 th March 2019	<p>The housing unit built by the contractor in Chibalashi was demolished and all the rubble waste was removed from the site by the contractor as of November 2018.</p> <p>This Action was confirmed on 25th February 2019 during site visits.</p>


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		 <p data-bbox="680 1040 1270 1101">Figure 6. The Structure has been demolished and valuable materials salvaged</p>			


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	Abandoned Machinery and Waste.	 <p>Figure 7: Grader Abandoned by the Contractor at Chibalashi dam</p> <p>All rubble - inclusive of vehicles and machinery parts should be transported for disposal at a ZEMA/Council certified dump site</p>	Ministry of Water Development Sanitation and Environmental Protection	This action should be confirmed before 15 th March 2019	<p>The Abandoned grader was removed by the contractor from the site in Chinbalashi as of November 2018.</p> <p>This action was confirmed on 25th February 2019 during site visits. The contractors Machinery has been removed from site and valuable construction material salvaged.</p>
	Demolition and capping of all pit latrines	A site walk should be undertaken to document any existing latrines recorded and capped. Members of the Dam Committee should be engaged to cap abandoned pit latrines.	Ministry of Water Development Sanitation and Environmental Protection and Members of the Dam Committee	This action should be confirmed before 15 th March 2019	<p>The capping of any existing latrines to be confirmed before 15th March 2019</p> <p>This action was confirmed on 25th February 2019 during site visits. Pit latrines have been demolished and capped, while the existing facilities will be handed over to the Dam Committee.</p>

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		 <p data-bbox="680 1040 1220 1097">Figure 10: Pit Latrine to be handed over to the Dam Committee</p>			
Borrow pits and Soil excavated soil	Abandoned borrow pits Excavated Soil heaps	Document the status of the borrow pits and excavated Soil Heaps in Chibalashi after demobilization of the contractor.	Ministry of Water Development Sanitation and Environmental Protection	This action should be confirmed before 15 th March 2019	Status to be confirmed after site visit before the agreed timeframe. This action was confirmed on 25 th


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		 <p data-bbox="680 732 1129 760">Figure 11: Parts of the Emergency spill way</p>			<p data-bbox="1772 261 2024 326">February 2019 during site visits.</p> <p data-bbox="1772 363 2024 553">Most of the borrow pit areas have been stabilized, but work is still pending on the emergency spill way that was not finalized.</p>



KATEMBULA DAM, COPPERBELT PROVINCE


Safeguards Aspect	Risks	Action Required	Responsibility	Time Frame	Status of Compliance
Flora	Unstable embankments due to loss of vegetation	<p>The embankment at Katembula Dam should be revegetated with native grass to help stabilize the dam and minimize soil erosion.</p>  <p>Figure 12: Revegetation of Embankment in Katembula</p>	Ministry of Water Development Sanitation and Environmental Protection.	This action should be confirmed by 15 th March 2019	This action was followed up with a site visit on 13 th February 2019 and the embankment has shown signs of revegetation.
	Increased levels of soil erosion after demobilization by the contractor	A post demobilization site walk should be undertaken to ensure all areas that experienced vegetation loss during the construction of the dam are identified and revegetated.		A post construction survey of vegetation cover at Chibalashi should be undertaken by 15 th March 2019	<p>Status to be confirmed after site visit before the agreed timeframe.</p> <p>This action was followed up with a site visit on 13th February 2019 and some open</p>

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		 <p data-bbox="674 821 1304 849">Figure 13; Erosion around Katembula dam after heavy rains</p>			<p data-bbox="1856 261 2003 326">areas need revegetation.</p>
<p data-bbox="203 878 285 906">Fauna</p>	<p data-bbox="459 878 646 1138">Increased human -animal conflict after dam completion due to increased reptile population such as crocodiles.</p>	<ul data-bbox="695 878 1423 1052" style="list-style-type: none"> • Engage the Dam Committees members that will operate the dam in the sensitization of the communities. • The dam committee should record all incidences of human – animal conflict and share the records with the National Parks and Wildlife Department 	<p data-bbox="1478 878 1654 1268">Ministry of Water Development Sanitation and Environmental Protection. Ministry of Water with the support National Parks and Wildlife Department</p>	<p data-bbox="1684 878 1831 1068">Engage members of the Dam committee by 15th March 2019</p>	<p data-bbox="1856 878 2032 1268">A letter was sent by the Department of Water Resources and Development on 14th March 2019 to the Departments of Agriculture, Livestock and Fisheries</p>
	<p data-bbox="459 1276 632 1399">Incidents of poaching around the inundated area</p>	<p data-bbox="674 1276 1423 1341">Engage the Dam Committee in Katembula and the local National Parks and Wildlife Department on protecting wildlife</p>		<p data-bbox="1684 1276 1818 1373">This action should be undertaken</p>	<p data-bbox="1856 1276 2032 1399">A letter was sent by the Department of Water</p>


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	for animals trying to access water.			by 15 th March 2019	Resources and Development on 14 th March 2019 to the Departments of Agriculture, Livestock and Fisheries
Community Safety and Access to Services	Increased risks of drowning and accidents due inundation and lack of access	Document current recreational use of the dam and establish when the Water Utility Company in Lufwanyama will initiate the abstraction to supply the residents	Ministry of Water Development Sanitation and Environmental Protection with Lufwanyama Town Council	These actions should be verified by 15 th March 2019	The action was confirmed by Lufwanyama District Council on 13 th February 2019
Water and Sanitation	Increased incidences of waterborne diseases.	Engage Rural Health Centers (RHC) and the Local Dam Committee in establishing a reporting system should they be reported increased incidents of waterborne diseases.	Ministry of Water Development Sanitation and Environmental Protection and the Ministry of Health	The Ministry of Water will formally send a letter to the Ministry of Health by 15 th March 2019	A letter was sent by the Department of Water Resources and Development on 14 th March 2019 to the Departments of Agriculture, Livestock and Fisheries
Health	Increased incidence of vector-borne diseases such as Malaria	Engage Rural Health Centers (RHC) and the Local Dam Committee in establishing a reporting system should they be reported increased incidents of vector-borne diseases such as malaria.			
Fisheries	Pressure on fish stock due to fishing and recreational activities	Engage with the Lufwanyama Town Council, Department of Fisheries and Dam Committee to ensure dam use is regulated	Ministry of Water Development Sanitation and Environmental Protection and	The Ministry of Water will formally send a letter to the	A letter was sent by the Department of Water Resources and Development

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			the Fisheries Department with the local Council and Dam Committee	Fisheries Department by 15 th March 2019	on 14 th March 2019 to the Departments of Agriculture, Livestock and Fisheries.
Decommissioning & Demobilization	Abandoned structures at the construction site and polluted soils	 <p data-bbox="674 951 1052 979">Figure 14; Contractor Cooking Hut</p> <p data-bbox="674 1011 1335 1071">Handing over of existing Structures to the Government or Community</p>	Ministry of Water Development Sanitation and Environmental Protection	This action should be confirmed before 15 th March 2019	<p data-bbox="1854 493 2032 914">The structures built by the contractor in Katembula was handed over to the local authority and dam Committee. They are currently a security guard on site.</p> <p data-bbox="1854 959 2032 1052">This action was verified on 13th February 2019</p>

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		 <p data-bbox="667 667 1031 695">Figure 15: Contractors Brick House</p>  <p data-bbox="667 1081 1115 1109">Figure 16: Iron Sheet Structures at the site.</p>			

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	Demolition and capping of all pit latrines	 <p data-bbox="674 846 1073 870">Figure 17: A Pit Latrine at the dam site</p> <p data-bbox="674 902 1430 1000">A site walk should be undertaken to document any existing latrines recorded and capped. Members of the Dam Committee should be engaged to cap abandoned pit latrines.</p>	Ministry of Water Development Sanitation and Environmental Protection and Members of the Dam Committee	This action should be confirmed before 15 th March 2019	<p data-bbox="1854 261 2032 456">The capping of any existing latrines to be confirmed before 15th March 2019</p> <p data-bbox="1854 488 2032 586">This action was verified on 13th February 2019</p>
	Abandoned Machinery and waste.	All rubble - inclusive of vehicles and machinery parts should be transported for disposal at a ZEMA/Council certified dump site	Ministry of Water Development Sanitation and Environmental Protection	This action should be confirmed before 15 th March 2019	This action was verified on 13 th February 2019 and all the machinery and rubble on site have been removed.

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	<p>Borrow Pits Stock- pills and Preservation of cut trees</p>	<div data-bbox="680 261 1325 656" data-label="Image"> </div> <p data-bbox="674 670 1125 699">Figure 18: Steep Borrow pit slopes in Katembula</p> <div data-bbox="680 727 1381 1118" data-label="Image"> </div> <p data-bbox="674 1133 932 1162">Figure 19: Wood Stock pills</p>	<p>Ministry of Water Development Sanitation and Environmental Protection</p>	<p>This action should be confirmed before 15th March 2019</p>	<p>This action was verified on 13th February 2019. The stockpiles of wood where given to the communities and the borrow pits still require rehabilitation.</p>

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		 <p data-bbox="667 662 1054 691">Figure 22: Soil Heaps around Katembula</p> <p data-bbox="667 717 1451 779">Document the status of the borrow pits and excavated Soil Heaps in Katembula after demobilization of the contractor.</p>			

INVOLUNTARY RESETTLEMENT KATEMBULA AND CHIBALASHI

Project Site	Action Required	Responsibility	Timeframe
Chibalashi	<ul style="list-style-type: none"> - Land for land compensation for 72 PAPs - Facilitate engagement of local chiefs in securing alternative land - Construction of access bridge 	<ul style="list-style-type: none"> - PMT 	<ul style="list-style-type: none"> - 31 March 2019
Katembula	<ul style="list-style-type: none"> - Cash compensation for 30 PAPs - Engage local and traditional authority in securing land compensation for 30 PAPs - Restoration of access point 	<ul style="list-style-type: none"> - PMT 	<ul style="list-style-type: none"> - 31 March 2019