

PART 1

ENVIRONMENTAL SAFEGUARDS MEASURES TO BE INCLUDED IN THE CONTRACTUAL DOCUMENTS OF THE CONSTRUCTION CONTRACTOR

This Matrix presents measures for the “Environmental and Social Clauses (ESC) for Contractors”.

Before the start of construction works, contractors will have to prepare and submit to PMT and Project Engineers their Construction Environmental and Social Management Plan (CESMP), based on final design and locations of different activities, including disposal sites, borrow pits, quarry areas, construction camps, etc. The CESMP will have to be approved by the PIU before the contractor can commence the works. These requirements will be specified in the specifications of the bidding documents.

Measures to be included in the contractual documents of the construction contractor(s)				
this part summarises impacts related to construction as spelt out in the ESMP		Significance		
		Planned	MoV	Responsibility
Impact 1	Impacts from water works: canals and water intake construction will necessitate crossing rivers and will involve water works such as building small dams and weirs, culverts, siphons and installing gabions to stabilize rivers. These will affect the geomorphology of rivers	Terms of Reference for the contractor; Contract	M&E Reports	Contractor, Supervising Engineer, PMT
Impact 3	Impacts from earthwork and land leveling : canal construction will necessitate important excavation of earth and rocks and the command area will be levelled	Terms of Reference for the contractor; Contract	M&E Reports	Contractor, Supervising Engineer, PMT
Impact 4	Workers influx: the project will require important workforce consisting of foreign workers. Land will also be required for machinery storage and workers’ camps. There is a risk that buildings and amenities do not respect quality standards	C_ESMP; Design Reports		Contractor, Supervising Engineer, PMT

Measures to be included in the contractual documents of the construction contractor(s)				
Impact 5	Job opportunities: work will require unskilled and skilled labour for construction	Terms of Reference for the contractor; C-ESMP	M&E Reports	Contractor
Impact 6	Permanent loss of buildings and other infrastructures: canals could necessitate destroying buildings and other infrastructures	Terms of Reference for the contractor; Contract	RAP Implementation and compensation reports	Contractor, Chikwawa District Council, PMT
Impact 7	Construction risk and nuisances: communities and workers are at risk from important works along canals and quarries	Terms of Reference for the contractor; Contract; C_ESMP	M&E Reports	Contractor, Engineer, PMT
Impact 8	Loss of physical cultural heritage: the canal alignment route and borrow pits will affect some known and unknown cultural heritage sites (mainly pottery)	Terms of Reference for the contractor; Contract; CESMP	M&E Reports	Contractor, PMT, Engineer, Department of Antiquities
Impact 12	Disturbance to fish migration to spawning sites: works in temporary rivers could lead to disturbances of fish migration	Terms of Reference for the contractor; Contract; C_ESMP	M&E Reports	Contractor, Engineer, PMT
Mitigations to be included in Environmental and Social Clauses (ESC) for Contractors				
Impacts	Measures	Inclusion in Contractual Documents	MoV	Responsibility
Impact 1	Avoid building temporary crossing in a tributary river in a meander but rather where the river is flowing in a straight line.	Terms of references Contract	M&E Reports; Site meetings	Contractor, Engineer, PMT
	Avoid work close to tributary rivers shall be carried out during the dry season (when rivers are dry)	Terms of references Contract	M&E Reports; Site meetings	Contractor, Engineer, PMT

Impacts	Measures	Inclusion in Contractual Documents	MoV	Responsibility
	Conduct refueling activities away from any waterbody (at least 100 m)	Contract: CESMP	M&E Reports; Site meetings	Contractor, Engineer, PMT
	Avoid spillage of concrete wash water in waterbodies	Contract; CESMP	M&E Reports; Site meetings	Contractor, Engineer, PMT
	Ensure emergency spills containment kit in all vehicles and machinery is mandatory	Terms of references Contract; CESMP Bills of quantities CESMP	M&E Reports; Site meetings	Contractor, Engineer, PMT
	Develop a method for environmentally friendly water work (reservoir and river) and spill containment in its technical proposal	Terms of References Technical proposal Contract CESMP	M&E Reports; Site meetings	Contractor, Engineer
Impact 3	Consult communities on use of top soil for agriculture.	Terms of references Contract CESMP	M&E Reports; site meetings	Contractor, Engineer
	Undertake borrow pits and quarries restoration	Terms of references Contract Bills of quantities CESMP	M&E Reports; Site meetings	Contractor, Engineer, EAD, PMT
Impact 4	Formulate and promulgate code of conduct in line with the ESMP for workers (and related visitors), including local workers, workers from other region or countries, and expats. Carry out induction training that includes a cultural induction, delivered with the help of Traditional Authorities.	Terms of references Contract CESMP; Code of Conduct	M&E Reports; Site meetings; Grievance Redress Mechanism (GRM)	Contractor, Engineer,

Measures to be included in the contractual documents of the construction contractor(s)				
	Develop and implement a grievance redress mechanism to allow community to communicate with the construction contractor about their concerns and grievances (and behavior of workers).	Terms of references Technical proposal Contract	GRM Monitoring reports	Contractor, GBV Service Provider
Impact 5	Assess risk to infrastructures by doing a ground-truthing survey of wells, houses, churches, buildings, before conducting rock blasting.	Terms of references Contract CESMP	M&E reports; Accident and incident reports	Contractor

Measures to be included in the contractual documents of the construction contractor(s)				
Impact 6	Formulate a recruitment policy that maximise local employment.	Terms of references Technical proposal Contract CESMP	Employment records	Contractor, District Labour Office
Impact 7	<u>Dust and pedestrians on construction roads</u> Ensure all gravel roads used by trucks must be sprayed on a regular basis.	Terms of references Technical Proposal Contract Bills of quantities for the molasses and for transportation CESMP	M&E Reports; Site reports	Contractor, Engineer, PMT
	<u>Risk of workers not wearing any PPE</u> Promote use of personal protection equipment among construction workforce. pment, etc.	Terms of references Technical proposal Contract Bills of quantities CESMP	M&E reports; Minutes of site visits; Engineer's monthly reports	Contractor, Engineer, PMT
	<u>Minimise risk due to poor hygiene and general state of workers camps</u>	Terms of references Technical proposal	Site visits	Contractor, Engineer

	Develop measures in for the safe evacuation of wastewater and wastes from the various camps, to prevent the spillage of wastewater in watercourses and prevent burning wastes.	Contract Bills of quantities CESMP		
	Engage the services of a Health and Safety specialist on full time basis. Develop a Code of Practice to manage health and safety risks associated with excavation work Formulate an H&S program and training plan	Terms of references Technical proposal Contract Bills of quantities CESMP	Employment reports; M&E visits	Contractor
	Install speed breakers in all created access roads. These shall be made of soil spoils and shall be compacted to last in line with the provisions of the ESMP.	Terms of references Technical proposal Contract Bills of quantities CESMP	M&E reports	Contractor; Engineer
Impact 8	Develop and apply Chance Find Procedures in case of discoveries of cultural heritage sites during excavation.	Terms of references Contract CESMP Department of Antiquities	M&E reports; site visits	Contractor; Engineer; Department of Antiquities
	Ensure the construction contractor has several experiences in effectively applying strict environmental management requirements in large, complex civil works projects.	Terms of references	Contract	Government of Malawi; Contractor; Engineer
	Engage services of an environmental specialist in its staff full time (in addition to a health and safety specialist)	Terms of references Contract Bills of quantities CESMP	Employment records	Contractor;
Impact 9	Ensure compliance with terms of reference of the contract	Terms of references Contract; Code of Conduct; GBV Service Provider Contractor	M&E reports	Contractor; Engineer; Government of Malawi

Measures to be included in the contractual documents of the construction contractor(s)				
Impact 12	Ensure river banks stabilization where riprap and the ford crossing and ramp shall be made of concrete. Ensure installation of temporary dike to cross river (for machinery and construction vehicles), incorporates culverts to allow for fish passages as laid down in the ESMP	Terms of references Contract CESMP	M&E reports; minutes of site visits; Engineer's reports	Contractor; Engineer
	All work in temporary rivers are prohibited from November to March and shall be concentrated between July and October to minimize impacts on migrating fishes.	Terms of references Contract CESMP	M&E reports; minutes of site visits; Engineer's reports	Contractor; Engineer

MONITORING OF ENVIRONMENTAL AND SOCIAL CLAUSES (ESC) FOR CONTRACTORS

In case the Project is designed by a separate firm than the construction contractor

All contractual measures related to the ESMP, described in the CESMP, shall be monitored on a monthly basis by the Supervising Engineer. He shall have in its team an environmental specialist (experienced in wildlife-related issues).

The Supervising Engineer's Environmental Specialist shall meet with the Health and Safety Specialist (from the CC), the Environmental Specialist from the CC, and law enforcement on a monthly basis. The Supervising Engineer shall report to the MoAIWD (Ministry of Agriculture, Irrigation and Water Development) all environmental, social, and health and safety issues related to the construction contractor.

Law enforcement will be expected to participate to these monthly meetings to ensure that cases of gender based violence are minimised.

Delays in payment or reduction of payment shall be applied for non-compliances for all ESMP measures. Therefore, the CC contract must include a mechanism for withholding payments.

Site visits by the Supervising Engineer will focus particularly on the following sites:

- Canal route and access roads

- Quarries and borrow pits
- Contractor’s campsite
- Canal construction

The Health and Safety Specialist (from the CC) and the Environmental Specialist (from the CC) will have to produce monthly reports dealing with the progression of works and compliance with required environmental, social, and health and safety of measures. They are in charge of the grievance mechanism (and its documentation). In addition, the Environmental Affairs Department (EAD) is empowered to follow up on construction activities as well. In order to ensure that the EAD follows up on the Project, it is recommended to mobilize an EAD expert full time to follow up on the ESMP and environmental compliance of the construction contractor. The following figure summarizes monitoring of the construction contractor.

In case if the Project is an Engineering, Procurement and Construction Project (EPC)

The same experts are recommended during construction (Health and Safety Specialist and an Environmentalist) with an EPC, however an external audit for environmental, social and health and safety would be required. Therefore, in the EPC scenario, an independent Environmentalist shall be hired. He would carry out monthly missions for the time of the construction activities. His work shall be budgeted for a 4 expert/month per year of construction.

This independent Environmentalist shall meet with the Health and Safety Specialist (from the EPC firm), the Environmentalist (from the EPC firm), law enforcement, the DNPW and African Parks on a monthly basis. The independent Environmentalist shall report to the MoAIWD all environmental, social and health and safety issues related to the construction phase. The following figure summarizes monitoring of construction in the EPC scenario.

PERFORMANCE INDICATOR(S)

The number of non-compliance on contractual measures are performance indicators. Measures of the ESMP are straightforward and do not leave room for much interpretation.

RESPONSIBILITIES FOR MONITORING

Actors	Roles	Frequency	Outcome
Government of Malawi (MoIWD & EAD)	Compliance review with all ESMP and contractual measures related to, social impacts and environment.	Monthly site meetings; Quarterly meetings	Contractual obligations complied with; Terms of ESIA Certificates followed
Supervision engineer or an Independent environmentalist (EPC)	Compliance review with all ESMP and contractual measures related to, social impacts and environment.	Monthly monitoring	Monthly Report to Project financiers and the MoAIWD

Health and Safety Specialist (from the CC or the EPC firm)	Internal monitoring of H&S and social measures related to the CC or the EPC firm	Full time on site	Weekly report for the CC/EPC firm and the Supervising Engineer/Independent Environmental Specialist
Environmental Specialist (from the CC or the EPC firm)	Internal monitoring of environmental measures related to the CC or the EPC firm	Full time on-site	Weekly report for the CC/EPC firm and the Supervising Engineer/Independent Environmental Specialist
Environmental Affairs Department (EAD)	Governmental monitoring of compliance with national regulations regarding health and safety, worker conditions, and environmental protection	To be decided at governmental level	After all visits, the EAD shall produce a report for the MoAIWD

PART 2

ACTION PLAN FOR SOCIOECONOMIC IMPACTS

Action and Monitoring plan for health and safety					
This part relates to mitigation measures as put in the health and safety (H&S) component of Vol.2 of the ESMP		Significance	Measures for ensuring compliance	MoV	Responsibility
Impact 1	Schistosomiasis. An increase of schistosomiasis in the command area is expected	Moderate			
Impact 2	Drownings. The presence of main canals may lead to drownings	Major			
Mitigation					
Mitigation 1: In other to fight schistosomiasis, several measures must be implemented at time of Project implementation including sensitization, treatment, acquisition of equipment and production of IEC materials.			Terms of references Technical proposal Contract Bills of quantities CESMP	Site meetings, M&E reports ; health surveillance reports	Ministry of Health, Contractor
Mitigation 2: Key actions shall include sensitisations, construction of large concrete stairs at each village crossed by a main canal (Feeder, Bangula and Supini). To reduce the incidence of drowning in the canal			Terms of references Technical proposal Contract Bills of quantities CESMP	Site meetings, M&E reports ;	Supervising engineer, contractor, Environmental and social Safeguard Specialists from PMT, Bulk Water operator

Action plan for socioeconomic impacts				
Reminder of impacts (as presented in Vol.2)		Significance		
Impact 1	<p>Village reorganization and resettlement: the project will lead to major changes in terms of land occupation and will necessitate physical and economic displacement</p>	Major		
Impact 2	<p>Workers influx: the project will require important workforce consisting of foreign workers. Land will also be required for machinery storage and workers camps. There is a risk that buildings and amenities do not respect quality standards</p>	Moderate		
Impact 3	<p>Permanent loss of buildings and other infrastructures: canals could necessitate destroying buildings and other infrastructures</p>	Minor		

Action plan for socioeconomic impacts					
Impact 4	Disruption of access : canals will cross roads, trails, path disrupting access for communities and cattle to grazing sites or to urban centers	Moderate			
Impact 5	Disturbance to existing agriculture: work will disturb cropping practices since some households will control physically different areas of land	Minor			
Impact 6	Job opportunities: work will require unskilled and skilled labour for construction	Minor (positive)			
Impact 7	Rapid social changes: there is a risk that people do not change their lifestyle and develop skills rapidly enough to adapt to the new irrigated environment	Minor			

Action plan for socioeconomic impacts				
Impact 8	Hinterland effect: the development of irrigation may be associated with an increase in human activity and local economy, which may lead to additional pressure on resources (wood for charcoal, fish, etc.)	Moderate		
Impact 9	Potential delays in irrigated agriculture development: any delays in the project completion or skills acquisition could delay the benefits	Minor		
Impact 10	Over supply of crops: increase in production could reduce prices and affect rain fed producers	Major		
Impact 11	Benefits of irrigated agriculture: the project overall goal is to benefit local communities	Major (positive)		
Impact 12	Reduction of fisheries: with slightly reduced water in the Elephant Marsh, fisheries could be affected.	Minor		

Action plan for socioeconomic impacts				
Impact 13	Impacts on livestock rearing: the Project will require adaptation of this livelihood strategy	Moderate		
Impact 14	Wildlife-human conflict: Elephant Marsh is the main site for wildlife-human conflict in the SVTP area. Hippopotamus and crocodiles are the current most conflictual animals and the situation could worsen with intensified agriculture in the vicinity of the Elephant Marsh.	Moderate		
Mitigation measures		Measures for ensuring compliance	MoV	Responsibility
Mitigation 1	Develop and implement the RAP.	Terms of references of Technical proposal Contract Bills of quantities CESMP	Site meetings, M&E reports ; health surveillance reports	Ministry of Lands ; District Council ; PMT ; Contractor
Mitigation 2 and 6	Promote local employment especially the PAPs. Discourage sprouting of squatters around campsite	Terms of references of Technical proposal Contract Bills of quantities CESMP	Site meetings, M&E reports ; Employment reports	Contractor ; District Council ; Traditional authorities

Action plan for socioeconomic impacts			
<p>Mitigation 3</p> <p>Ensure minimum disruption to human settlements and population</p>	<p>Terms references of Technical proposal Contract Bills of quantities CESMP</p>	<p>Site meetings, M&E reports ; RAP reports</p>	<p>Contractor ; Engineer</p> <p>District Council ; Traditional authorities</p>
<p>Mitigation 4</p> <p>Ensure access across canal is provided to people, animals and vehicles</p> <p>Provide footpaths in the scheme command area to allow people to cross secondary canals,</p>	<p>Terms references of Technical proposal Contract Bills of quantities CESMP</p>	<p>Site meetings, M&E reports ; Design reports</p>	<p>Contractor ; Engineer</p> <p>PMT</p>
<p>Mitigation 5</p> <p>Minimise disruption to crops</p>	<p>Terms references of Technical proposal Contract Bills of quantities CESMP</p>	<p>Site meetings, M&E reports ; District Councilreports</p>	<p>Contractor ; Supervising engineer</p> <p>District Council ; Traditional authorities</p>
<p>Mitigation 7</p> <p>Develop and implement GRM</p>	<p>Terms references of Technical proposal Contract CESMP</p>	<p>Site meetings, M&E reports ;</p>	<p>Contractor ; GBV Service Provider District Council ; Traditional authorities</p>
<p>Mitigation 8</p> <p>Promote afforestation activities to address wood fuel deman</p>	<p>Terms references of Technical proposal Contract Bills of quantities CESMP</p>	<p>Site meetings, M&E reports ; DFO reports</p>	<p>Contractor ; Engineer</p> <p>District Council ; Traditional authorities</p>
<p>Mitigation 9</p> <p>Support the delivery of advisory services, adaptive research and development, the strengthening of research-extension-farmer linkages, the improvement of market linkages, and increased pluralism in market delivery. These resources could be provided by the Ministry of Agriculture, Irrigation and Water Development and the Proposed organizational setup presented in the Agricultural Development Planning Strategy study (PWC, 2016).</p>	<p>Terms references of Technical proposal Contract Bills of quantities CESMP</p>	<p>Site meetings, M&E reports ;</p>	<p>Contractor ; MoIWD District Council ; Traditional authorities</p>

Action plan for socioeconomic impacts			
<p>Mitigation 10</p> <p>Support production of export crops.</p>	<p>Terms of references for Agriculture Commercialisation TA ; Technical proposal for TA ; Contract for TA</p>	<p>Site meetings, M&E reports ; Trade reports</p>	<p>MITC ; TA ; MoIWD ; SOCFEs, MTI</p>
<p>Mitigation 11</p> <p>Enhance community livelihoods</p>	<p>Terms of references for Agriculture Commercialisation TA ; Technical proposal for TA ; Contract for TA</p>	<p>Site meetings, M&E reports ; Trade reports ; mid and end of term evaluation reports</p>	<p>MoIWD; World Bank</p>
<p>Mitigation 12</p> <p>Promote fish farming</p>	<p>Sub-Component 2.2 will address this area</p>	<p>Site meetings, M&E reports ; Trade reports ; mid and end of term evaluation reports</p>	<p>MoIWD, Fisheries Dept</p>
<p>Mitigation 13</p> <ul style="list-style-type: none"> • Increase access to water to humans and livestock • Conduct soil suitability study 	<p>Terms of references for operator ; Technical proposal for TA ; Contract for TA</p>	<p>Site meetings, M&E reports ; SRWB reports ; mid and end of term evaluation reports</p>	<p>MoIWD; SRWB; MoIWD</p>

PART 3

Action Plan for Cultural Heritage

This Action Plan aims at two situations:

Salvage archeology to safeguard high priority artifacts prior to construction

Chance find procedure in case of discoveries during excavation work

Action plan for cultural heritage		Compliance Measures	MoV	Responsibility
This part relates to impacts on cultural heritage as presented in Vol.2 of the ESMP		Significance		
Impact 1	Loss of physical cultural heritage	Minor		
Mitigation				
<p>Employ hand excavation in high priority sites using trowels, hand mattocks, shovels, etc. by natural and/or arbitrary levels. Preserve would be the faunal analysis of bone material, pollen and/or soil analysis and specialized ceramic studies.</p> <p>Use heritage experts and relevant community members to assess the significance of the discovery, and report it as required by law.</p> <p>Decide on the right way to manage the discovery in consultation with the relevant community groups and/or archaeologists.</p>		<p>Terms of reference ; Contract</p>	<p>M&E reports ; site visits ; Engineer's report</p>	<p>Contractor ; Engineer ; Dept of Antiquities ; Traditional leaders and communities</p>

PART 4

Action Plan for gender and youth

Main issues	Mitigation measures to be implemented (or that were implemented)	Actual	Means Of Verification	Responsible Institution
Recruitment and capacity of consulting / project teams/ missions	Ensure that all terms of reference for consultants and staff have a gender aspect/expert in them	Terms of References in the Technical Proposal	Report	SVIP Management
	Train/orient all project staff and consultants on gender and youth issues, including orienting them on SVIP	Terms of References in the Technical Proposal	Training Reports	SVIP Management and Consulting companies
	Where possible, ensure that the composition of staff at all levels is at least 50% women, to be in line with the 50:50 policies	Terms of References in the Technical Proposal	Employment Reports, M&E Reports.	Consulting companies Project Team, Contractor
Implementation of stakeholder consultation process, community mobilisation and engagement for the SVIP	Implement communication activities at all levels in the project area (ADC and VDC levels)	Terms of References in the Technical Proposal	M&E Reports, Activity Reports	CCPLTRPF Consulting Team
	Develop community mobilisation guidelines that incorporate gender issues.	Terms of References in the Technical Proposal	Availability of reports and the guidelines, M&E Reports.	Consultants and District Council
	Ensure information education and communication materials are accessible to the illiterate, especially women.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consulting companies Project Team
	Ensure women, youth and the poor are included in all field level activities, meetings and capacity building processes.	Terms of References in the Technical Proposal	Activity Report, M&E Reports	Consultants and District Council
	Orient all enumerators on gender and youth issues related to Chikwawa and Nsanje	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants

Main issues	Mitigation measures to be implemented (or that were implemented)	Actual	Means Of Verification	Responsible Institution
Preparatory studies, baselines data collection, analysis and reporting	Ensure that all data collection instruments are able to collect gender and youth disaggregated data.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants
	Ensure that all data collection tools are gender/youth-audited by the CCPLTRPF Gender and Youth Expert	Terms of References in the Technical Proposal		Consultants
	Ensure that data is analysed and disaggregated by sex and age to capture gender and youth issues.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants
Institutional development and formation of irrigation options, farmer management entities, SVIP governance and management committees	Ensure that gender and youth issues are used as criteria for choosing the SVIP irrigation institutional model.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure that women, youth and poor people are represented and actively participate in irrigation management entities	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Train all irrigation management entities on gender and youth issues	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure women, youths and poor are included in the management, governance, implementation and technical teams of SVIP	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Build capacity of individual farmers on gender and youth issues, including decision making at household level	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, District Council, Technical Teams, National Youth Council and Farmer Organisations
	Ensure no discriminatory practices are being used to limit participation of women and youth.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams

Main issues	Mitigation measures to be implemented (or that were implemented)	Actual	Means Of Verification	Responsible Institution
	Ensure that voices of women, youths and poor are heard by management of the water management entity	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Implement positive discrimination, if the irrigation or farmer management entities do not have representation from women, youths and the poor	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
Land redistribution, resettlement policy framework and grievance mechanism	Ensure that PAPs are gender, age and poverty defined, so that it is known who is most affected by resettlement	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure that women, youths and poor are also provided with land in the schemes. Government can lease off land and reallocate equitably amongst beneficiaries.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure that women and youths and poor who lose land are appropriately compensated. During compensation, ensure that all household members have access and control of the compensation by adopting a household livelihood and planning approach.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure that District Council teams, Committees and experts that value lost assets during compensation, value land as well, not just structures on it.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams

Main issues	Mitigation measures to be implemented (or that were implemented)	Actual	Means Of Verification	Responsible Institution
	Ensure that District Council teams, Committees and experts that value lost assets during resettlement planning do not sexually abuse women or girls (or any form of gender based violence)	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure that land assessment teams include women and youths and ensure that land losses of female headed households are assessed by female officials/experts. Whoever does the valuation should be gender trained.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure that gender and youths sensitive spaces are created for women to lodge their grievances on unfair practices.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure that grievances by women are handled by women. Traditional leaders should ensure that women are included in any primary justice structures that they have in place or are to be created.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Encourage land being registered jointly in the name of the woman and the man.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
Monitoring and evaluation of gender and youth activities.	Ensure that the intervention logic of any project being designed has SMART and gender and youth sensitive indicators and take into account poverty	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams

Main issues	Mitigation measures to be implemented (or that were implemented)	Actual	Means Of Verification	Responsible Institution
	Ensure that monitoring the progress made in applying gender and youth approaches in irrigation projects is regularly undertaken.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure that all indicators at input, output, outcome and impact level are disaggregated by gender, age, household headship, location and marital status, where necessary. Indicators that can be used are included in the annexes.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure that programme targets are gender and youth disaggregated	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams
	Ensure that monitoring and evaluation terms of reference and teams have gender and youth expertise.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams

PROJECT CONSTRUCTION AND OPERATION PHASE

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	Promote SVIP as multiple-use (irrigation, domestic and livestock uses) irrigation and water programme.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
Policy level commitment to mainstream gender and youth issues in the SVIP				in collaboration with other line ministries and government departments
	Ensure that women enjoy de jure and de facto equality in access to land and other property, including inheritance and purchase.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD in collaboration with other line ministries and government departments
	When water management institutions do not have any or few women and youth, introduce appropriate institutional measures, such as minimum quotas for women and youth to increase participation of women and youths	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams, Water management Institutions
	Provide improved coordination among concerned water management institution to facilitate the implementation of multiple-use water projects.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams, Water management Institutions

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	Support equal employment opportunities in water management institution for both genders and for youth and older people.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams, Water management Institutions
	Provide and support capacity building around gender and youth issues in water management entities with particular attention to extension staff.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams, Water management Institutions
	Ensure effective linkages with gender and youth ministries and CSOs	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams, Water management Institutions
Land administration, allocation and tenure arrangements for women, youth and poor people	Conduct participatory assessments to understand the social organization of agricultural production and the specific gender and youth division of labour in the project area.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	Implement mechanisms to ensure that the landless are also provided land and participate in irrigation activities	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams, Water management Institutions
	If irrigation schemes involve land titling or retitling, new land titles should be granted to women or to husbands and wives jointly. Youths should also be included.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams, Water management Institutions
	Disaggregate land ownership data by gender and age to understand land ownership issues amongst women and youth.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants
	Conduct local/grassroots advocacy work with traditional leaders to improve land ownership by women and jointly by woman and man	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	NGOs, MoAIWD, National Youth Council, District Council and Technical Teams, Water management Institutions

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	Ensure that irrigation schemes have both commercial as well food security objectives by adopting integrated farming systems, nor just commercial mono-cropping	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Scheme management
Construction of various irrigation infrastructure and installation of equipment	Ensure that women and youth are involved so that they also benefit from the employment created, where feasible.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Contractors
	Ensure gender sensitive resettlement in terms of targeting, compensation and provision of services to new locations.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams, Water Management Institutions
	Provide social safeguards to protect women and girls from being sexually abused	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams, Water Management Institutions
Gender and youth division of labour	The irrigation scheme should provide labour for irrigation activities in the farm. The irrigation model should not allow farmers to work using their own labour in the blocks.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD, National Youth Council, District Council and Technical Teams, Water Management Institutions

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	Ensure that planners involved in the projects are aware of women's and youth contributions to farm and household production to enable them design plans that are appropriate for women.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Planners, DEC members, irrigation officials
	Irrigation designs should carefully evaluate the availability of women's and men's work in the family and expected impacts of intervention on women's and men's income, time use, and social power.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions, DEC members, community
	Community labour contribution to irrigation projects should take into consideration the contribution of women and men at household level. Where possible, this labour should be for to compensate for time lost.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions, DEC members, community
	Provide appropriate labour and time saving technologies to those beneficiaries, especially those who are already overburdened with labour at household level.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions, DEC members, community
Access and control over economic and social benefits from participation irrigation services	Income from irrigation at household level should be transparently used by adopting a participatory expenditure management at household level	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Irrigation Scheme Management
	Provide equal access to training, finance/credit and related irrigations services for men, women and youths.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions, DEC members, community leaders

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	Provide training opportunities for the youth and women in advocacy and engagement and inclusion	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions, DEC members, community leaders
	Provision and promotion of (agriculture-related) vocational skills for youths which will enhance the growth of the sector	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions, DEC members, community leaders
	Monitor use of irrigation income/earnings at household level	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions, DEC members, community leaders
Farmer management entities and other institutional arrangements.	Ensure that by-laws of irrigation schemes/WUAs or its constitution provide equal opportunities for all members. Ensure that it has some affirmative actions that favour the disadvantaged groups.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions, DEC members, community leaders
	Ensure that there are no discriminatory practices that are being used to limit participation of women and youth, even when bylaws provide for equal opportunity. These may include high membership fees, landlessness, access to water etc.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions, DEC members, community leaders

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	Implement positive discrimination, if the criteria for irrigation scheme or WUA membership is discriminatory	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions, DEC members, community leaders
Socio-economic empowerment of women and youths in and around irrigation schemes	Improving access to finance to enable women and youths participate in irrigation technology and value addition	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions s, DEC members, community leaders
	Integrate/promote village loans and savings and income generating activities in irrigation schemes	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions s, DEC members, community leaders
	Training women and men on human rights and the importance of women's participation in decision making at all level	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions s, DEC members, community leaders
	Introducing functional literacy classes in water management institutions to improve women's and illiterate men's ability to read and write so that they can effectively participate in agricultural decision making processes	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Water Management Institutions s, DEC members, community leaders

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
Designing and implementing multiple use irrigation services.	Implement a strong consultation process during the planning and implementation stages to understand gender dynamics	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
	During implementation, conduct training programs addressed to women to help them manage and maintain the points of supply will also be necessary. Ensure that planners understand women's and girls' water needs as women and girls will be the main users of those watering points	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
	Translate multiple water needs into affordable small- and medium-scale technical irrigation designs	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
	Ensure that water points are created for domestic and other social uses, especially livestock.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	Introduce community water points because tap water may not be feasible as houses are not mostly permanent.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
Irrigation scheme management and farmer management	Ensure that all farmers aggregate their land so that no single farmers are identified by or works on their own land.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
	When forming groups, ensure that membership fees are affordable and those that cannot afford are supported with cash transfers to be able to pay	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and District Council
	Adopt management arrangements that have been used for the Phata Irrigation Schemes where possible	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
	Ensure that farmers are organised in a way that ensure women and youth participate in the activities of the scheme and benefit from it	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Irrigation Scheme Management
	Implement gender training programmes for staff and communities around the schemes	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Irrigation Scheme Management

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	Implement gender sensitive transparent and accountable irrigation revenue management	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Irrigation Scheme Management
	Adopt agronomic principles that use technology other manual labour and ensure that farmers are paid when they provide labour.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Irrigation Scheme Management
Reaching the poorest and most vulnerable groups.	Ensure that the vulnerable and often-overlooked groups such as women, youths, PLHIV, elderly, landless workers and poor women farmers are included in all stages, including during consultation, resettlement and land reallocation, during implementation and monitoring and evaluation.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
	In order to know who vulnerable rapid vulnerability assessments should be included in the consultation processes.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
Monitoring and evaluation of gender and youth activities.	Ensure that the intervention logic of any project being designed has SMART and gender and youth sensitive indicators	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	Ensure that monitoring the progress made in applying gender and youth approaches in irrigation projects is regularly undertaken.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
	Ensure that all indicators at input, output, outcome and impact level are disaggregated by gender, age, household headship, location and marital status, where necessary. Indicators that can be used are included in the annexes.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
	Ensure that programme targets are gender and youth disaggregated	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
	Ensure that monitoring and evaluation terms of reference and teams have gender expertise.	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs
Gender and youth capacity at various level	<u>Cabinet level:</u> Presidential directives Gender and youth briefings and awareness sessions Policy briefs on gender and youth	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	<u>Ministries and departments</u> Establish focal points in ministries Train planning and monitoring and evaluation officers on gender and youth Joint planning and monitoring teams Technical support on gender and youth	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD
	<u>District Executive Committees Members</u> Allocate resources for gender and youth analysis, gender and youth training and mainstreaming Train of the District Executive Committee on gender and youth Establish focal points in sectors Joint planning and monitoring teams Technical support on gender and youth	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	MoAIWD
	<u>Community structures</u> Orient local leaders (such as Councillors, Traditional Leaders, Religious Leaders on gender and youth issues and women's and youth' rights Train of the ADCs, VDC and AECs on gender and youth	Terms of References in the Technical Proposal	Activity Reports, M&E Reports	Consultants and DEC members, Water management institutions, local leaders and gender CSOs

Main issues	Mitigation measures to be implemented	Actual	Means of Verification	Responsible Institution
	<p>Conduct gender and youth analysis together with District and Community Teams</p> <p>Train community-based volunteers in gender and youth issues such as gender and youth participation in decision making</p> <p>Conduct participatory gender and youth analysis, planning and monitoring at community level</p> <p>Establish local gender and youth forums or advocacy groups</p>			
	<p><u>Household level</u></p> <p>Sensitization of men, women and youth on the roles and importance of women and youth and women's and youth' rights</p>	<p>Terms of References in the Technical Proposal</p>	<p>Activity Reports, M&E Reports</p>	<p>Consultants and DEC members, Water management institutions, local leaders and gender CSOs</p>

STAKEHOLDER ROLES

National level

At the national level, the Ministry of Agriculture, Water and Irrigation Development and Irrigation (MoAIWD), will ensure that guidance incorporates gender issues that have been identified and included in the Gender and Youth strategy. The Ministry will ensure that planners involved in the project have requisite gender analysis skills and utilise gender lens in designing the scheme. The Ministry will work closely with the Ministry of Gender, Community Development and Children Affairs and the National Youth Council to ensure that gender issues are implemented and reported in a coordinated way.

District level

At district level, the District Executive Committee will appoint a SVIP committee which will oversee implementation of the gender and youth interventions as prioritised in the Gender and Youth strategy. The DEC will monitor gender mainstreaming and affirmative actions at implementation level. It will ensure that the programme is implemented in a participatory and consultative way to ensure that vulnerable groups such as women, youths, poor men and people living with HIV are engaged, participate and benefit from the programme.

Community level

At community level, water management entities created through the SVIP, will ensure that a certain minimum percentage of women and youths are involved and benefit from the programme equally with men. They will implement affirmative actions on areas where gender gaps are identified. Contractors and consultants will ensure that women, youth and other vulnerable groups are consulted regularly through systematic processes and their views reflected in irrigation designs and specifications. They will create gender capacities within their staff and experts and ensure that all gender and youth issues identified through this guideline are understood and addressed by their teams. This requirement will also be included in their contracts, and the contracts are not engendered, MoAIWD will negotiate for an additional MoU to ensure that gender issues are included. The CCPLTRF Consultant (COWI) will also monitor adherence to the gender strategy, at the feasibility phase.

PERFORMANCE INDICATORS

COWI (2016) has developed performance indicators to monitor gender and youth aspects. At time of monitoring, an independent consultant will be hired to carry out the monitoring as presented hereunder as well as the National Youth Council and the District Council.

Indicators	Type	Method of data collection
Number and frequency of women, men, youths, and other disadvantaged persons consulted during detailed design and implementation	Output	Meetings or process records/registers
Percentage of women and men, boys and girls actively participating in planning sessions for water allocation program for drinking water and agricultural irrigation	Output	Meetings or process records/registers
Percentage of women and men, boys and girls actively participating in water entities	Output	Meetings or process records/registers
Percentage of women and men, boys and girls members of operations and management committees of irrigation projects	Output	Meetings or process records/registers
Women, men, boys and girls and other vulnerable groups in positions of management or leadership in farmer management entities	Output	Meetings or process records/registers
Community satisfaction (disaggregated by gender and age) regarding water distribution schedules and access	Outcome	Household surveys
Access of women and men, boys and girls to support services, such as credit and extension (such as percentage of women in agricultural training and of women clients of credit institutions)	Outcome	Household surveys
Percentage of women and men, boys and girls among total trainees receiving training in the appropriate use of irrigation for high-value crop production	Output	Training reports

Indicators	Type	Method of data collection
Access of landless/vulnerable women and men, boys and girls to water from irrigation schemes	Outcome	Household surveys
Among surveyed women and youths, in target group, percentage rate their access to water for agricultural and domestic use as having improved during the period covered by the program or project	Outcome	Household surveys
Changes in relevant dimensions of well-being, disaggregated by gender, age and wealth group: food and other products, household income, labour and other costs for water conveyance, water quality for drinking, and water quantity for hygiene	Impact	Household surveys