

# COWASH

## TOT ON SOCIAL, ENVIRONMENTAL AND CLIMATE RISK SCREENING AND MANAGEMENT MUSSIE HAILEGEORGIS, CERWSS

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BISHOFTU**



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# 1. OBJECTIVE OF THE TRAINING

**The objectives of the training are to acquaint trainees:**

- with the basic concepts of environment and its implication for sustainable WASH service provision,*
- with the social, environmental and climate risks related to COWASH activities,*
- with the basic skill on how to screen COWASH project activities for social, environmental and climate risks, and*
- With the skill to prepare risk management and monitoring plan*

## 2. INTRODUCTION

### 2.1. What is environment?- Components of environment

- ✓ Physical environment (land, water, air, climate,..)
- ✓ Biological environment (Fauna, flora)
- ✓ Social/human environment (social, cultural, economic, spiritual)

## 2.2. WHY WE WORRY FOR THE ENVIRONMENT ?

**Because it provides the following functions without which we can not live.**

### 1. Supporting services - Overarching service

- ✓ *Nutrient cycling*
- ✓ *Soil formation*
- ✓ *Primary production/biomass production,*
- ✓ *water cycling*
- ✓ *Carbon sequestration*

### 2. Provisioning services (ecosystem goods)

- Food*
- Fresh water***
- Wood and fiber*
- Fuel*
- Genetic resources*
- Medicines*

# WHY WE WORRY FOR THE ENVIRONMENT ....

## 3. Regulating services

- *Climate regulation*
- *Flood regulation*
- *Disease regulation*
- *Water purification*
- *Erosion control*

## 4. Cultural services

- ❖ *Aesthetic*
- ❖ *Spiritual*
- ❖ *Educational*
- ❖ *Recreational*

### Box 1

Well-managed ecosystems can reduce the impacts of many natural hazards such as flooding, landslides, storm surges

### Box 2

**Degraded ecosystem/environment reduce the resilience of the water supply system in providing sustainable services.**

# WHY WE WORRY FOR THE ENVIRONMENT ....

**Ecosystem degradation and loss have led to serious impacts on human well-being:**

- *Reduced availability of goods and services to local communities,*
- *Increased spread of diseases, and*
- *Reduced economic opportunities.*



**Loss of livelihoods, and reduced food security**

## **Causes for environmental degradation:**

- ✓ *Over exploitation of resources,*
- ✓ *Land use and land cover changes*
- ✓ *Climate change impacts – aggravate environmental degradation*
- ✓ *Pollution (chemical waste and agricultural inputs)*

## 2.3. RISKS FOR COWASH PROJECT ACTIVITIES

### Social Risks

- *Land acquisition & property losses*
- *Occupational safety & health*
- *Cultural and religious*

### Environmental risks

- ✓ ***Risk to the environment:*** *cause land degradation, depletion of water resources,*
- ✓ ***Risk to the project:*** *land slide, gully, degraded watershed causing water shortage, flood to cause infrastructure damage and pollution of water source, water quality problem from pollution sources,...*
- ✓ ***Hydro-geological environment:*** *storage & release, digability and stability,...*

### Climate risks

- ***Flooding*** *to cause infrastructure damage and pollution*
- ***Drought*** – *water shortage*
- ***Water quality*** *problem due to concentration of certain chemicals like fluoride*

## 2.4. WHAT HAS BEEN DONE

### Government

Different policies and legal frameworks

Establishing institutions/regulatory body  
at all level

### COWASH

**Field Appraisal checklist**

**Climate and environmental risk screening  
tool and training**

**CR-WSP training and piloting**

Gap:

**Not sufficient and moniterable**

# POLICIES AND LEGAL FRAMEWORKS

- *The constitution of Ethiopia,*
- *Environmental policy of Ethiopia,*
- *Environmental impact assessment proclamation, and guideline,*
- *Water resources management policy and water sector strategy,*
- *Land expropriation and payment of compensation: proclamation and regulation,*
- *National Climate Resilient Green Economy (CRGE) strategy of Ethiopia,*
- *Climate Resilient (CR) strategy: water and energy sector developed by Ministry of Water, Irrigation and Electricity (MoWIE) etc...*

## **POLICIES AND LEGAL FRAMEWORKS: AIMS**

- ✓ *Ensure right to live in a clean and healthy environment*
- ✓ *Ensure right to full consultation and to the expression of views*
- ✓ *Ensure right for compensation*
- ✓ *Improve and enhance the health and quality of life of all Ethiopians and to promote sustainable development*
- ✓ *Ensure efficient, equitable, and optimum utilisation of the available water resources*
- ✓ *To protect water resources and sources from degradation*
- ✓ *Ensure the integration of environmental considerations in development planning processes*
- ✓ *Ensure the implementation of appropriate watershed management practices to promote water conservation, maximise water yields, improve water quality, and reduce reservoir siltation and flooding.*
- ✓ *Protect the country from the adverse effects of climate change and build a green economy.*

### 3. SECR ANALYSIS PROCESSES

- Risk assessment/analysis is the formal process of evaluating the **consequences** of an impact and **probabilities** of impact occurring.

#### Information required for the risk analysis:

✓ *Description of the project (nature & scale of the project, and the vulnerability of the project)*

✓ *Description of the environment*

✓ *Description of policies and legal frameworks*

#### Impact is an interaction between:

- ❑ *The project activities, and*
- ❑ *The environment*

*Without describing the activities and the environment, we can not analyse the impact.*

# SECR ANALYSIS PROCESSES....

## SECR analysis addresses

- ✓ *what can go wrong (what impacts to the environment may occur)*
- ✓ *what the consequences are (how harmful are these impact to the environment and/or the project), and*
- ✓ *how likely the consequences are (how likely is it these impacts will occur)*



## It involves four stages:

- *Identifying the impacts*
- *Assessing the potential consequences of the impacts*
- *Assessing the probability of the impact occurring*
- *Evaluating the risk level*

# SECR ANALYSIS PROCESSES...

## Step 1: Identifying impact

- ✓ *It is determining which impacts will result from:*
  - *the implementation of each project activities, and*
  - *as a result of climate change & variability, and environmental degradation*

## Examples:

1. *Livelihood loss due to land acquisition*
2. *Land degradation due to excavation activities*
3. *WASH facilities damaged due to flood, land slide, gully*
4. *Water pollution due to flood, agro-chemicals, and toilet near by the water point*
5. *Shortage of water due to drought, small catchment size, hydro-geological problem/site selection*
6. ...

# SECR ANALYSIS PROCESSES...

## Step 2: Assessing the potential consequences of the impacts.

### Consequence:

- *adverse effect to health, property, the environment, or other things of value.*
- *extent to which:*
  - ✓ *a project might affect the environment, and*
  - ✓ *the environmental degradation and climate change & variability affect the project sustainability.*

### Consequence: a function of:

- *intensity/severity,*
- ***extent/scale,***
- *the duration of the impact.*

### **Intensity:**

- ❖ *Magnitude*
- ❖ *Vulnerability (Sensitivity, exposure)*
- ❖ *Adaptive capacity*
- ❖ *Mitigatory potential*
- ❖ *Reversibility*

**Consequence** is rated as **low**, medium, **high** and very high.

# SECR ANALYSIS PROCESSES...

## Step 3: Assessing the probability of the impact occurring

✓ *description of likelihood that the impact is occurring.*

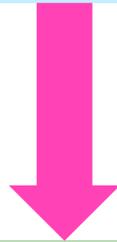
Rating	Definition of rating	Score
<b>Improbable</b>	The possibility of the impact to occur is very low. Could occur at some time but has not been observed; may occur only in exceptional circumstances.	1
<b>Possible</b>	There is a distinct possibility that the impact will occur.	2
<b>Probable</b>	It is most likely that the impact will occur.	3
<b>Definite</b>	Almost certain to occur or may have already occurred. The impact will occur regardless of any prevention or corrective action.	4

# SECR ANALYSIS PROCESSES...

## Step 4: Evaluating the risk level

It is rated as:

- ✓ *the chance of the impact happening – ‘**probability**’*
- ✓ *the amount of loss or damage if the impact happened – **consequence**.*



**Risk of an impact = Consequence X Probability of impact**

## Risk analysis requires:

- **Team of experts**
- **Experience**
- **Local knowledge**
- **Scientific information**

# SECR ANALYSIS PROCESSES...

		Probability (p)			
		Improbable (1)	Possible (2)	Probable (3)	Definite (4)
Consequence (C)	Low (1)	Low (1)	Low (2)	Medium (3)	Medium (4)
	Medium (2)	Low (2)	Medium (4)	High (6)	High (8)
	High (3)	Medium (3)	High (6)	Very high (9)	Very high (12)
	Very high (4)	Medium (4)	High (8)	Very high (12)	Very high (16)
	Risk score	≤2	3-4	6-8	≥9
	Risk level	Low	Medium	High	Very high

**Low:** The potential impact **may not** have any meaningful influence on the decision regarding the proposed activity/development. It is not a priority but need monitoring of the impact.

**Medium:** Medium to long term priority and needs attentions. Risk is of marked concern that will necessitate action for mitigation that need to be demonstrated as effective. Social, environmental and climate risk management plan (SECRMP) including monitoring plan should

**High:** The risks under this category are perceived as unacceptable and a strategy is required to manage the risk like SECRMP including monitoring plan.

**Very high:** The proposed activity should only be approved under special circumstances. It may need further assessment and need preparation of the SECRMP including monitoring plan.

# 4. SECRSMP PREPARATION

## SECRSM links between:

- ✓ *the impacts predicted and mitigation measures specified, and*
- ✓ *the implementation and operational activities of the project*

### **SECRSM plan:**

- **It needs to be done for every water point**
- **Is not a one time activity**
- **It is regularly & continuously updated, implemented and monitored:**
  - **construction,**
  - **operation to decommissioning.**

# SECRSMP PREPARATION...

## Template for the SECRSM

Region:; Zone:\_\_; Woreda:\_\_\_\_; Kebele:\_\_\_\_; Site:\_\_\_\_; WP:\_\_\_\_\_

S. N	Risk Screening					Risk Management			
	Project activity (1)	Impact (2)	Risk			(MMs) (6)	Responsible body (7)	When (8)	Cost for MMs (9)
			C (3)	P (4)	RL (5)				
I	<b><i>Impact of the project on the biophysical environment</i></b>								
II	<b><i>Impact of the project on the Social Environment</i></b>								
III	<b><i>Impact of Environmental Degradation on the Project Sustainability</i></b>								
IV	<b><i>Impact of Climate Change on the Project Sustainability</i></b>								

# PREPARE SECRM MONITORING PLAN

## **It is required to:**

- ✓ *assess whether the various mitigation measures planned in the SECRMP are implemented,*
- ✓ *mitigation measures are effective, and*
- ✓ *to take action to manage un-anticipated impacts or other unforeseen changes.*

# PREPARE SECRM MONITORING PLAN...

## Template for the monitoring plan

Region:; Zone:\_\_\_\_; Woreda:\_\_\_\_; Kebele:\_\_\_\_; Site:\_\_\_\_; WP:\_\_\_\_\_

No	Potential Impacts that need mitigation	Description of mitigation (elements to be monitored)	Responsible body	Indicators to be monitored	Monitoring method	When to monitor	Monitoring Cost
I	<b>Impact of the <i>project</i> on the <i>Biophysical Environment</i></b>						
II	<b>Impact of the project on the Social Environment</b>						
III	<b>Impact of Environmental Degradation on the Project Sustainability</b>						
IV	<b>Impact of Climate Change on the Project Sustainability</b>						

## DATA COLLECTION FOR LAND ACQUISITION

**If COWASH project involves land acquisition and property losses:**

- ✓ *land holder/s should be **consulted meaningfully**, and **legally binding** documents should be documented*
- ✓ *the **minutes** of consultation, and the **table below** filled*
- ✓ *These documents should be **signed** by the land owner/s, the community*
- ✓ *Should be documented at Woreda Water Office, Kebele administration, WASHCO and the land owner/s.*

# DATA COLLECTION FOR LAND ACQUISITION

Land acquisition and property lose risk management information data collection form

Region: \_\_\_\_\_ Zone: \_\_\_\_\_, Woreda: \_\_\_\_\_; Kebele: \_\_\_\_\_; Site: \_\_\_\_\_, WP: \_\_\_\_\_

<b>1. Is land taken for the WASH Facility construction private or communal?</b> <b>2. If private farmer/s land is taken, fill the information below.</b>	Private	<input type="checkbox"/>	Communal	<input type="checkbox"/>

Name of the farmer/s (MHH/FHH)	# of HHs	Amount expropriated/taken (m <sup>2</sup> ) including the ROWs for footpath, fencing...		% of land expropriated from what the farmer/s has/have in total	Risk level (from table 4)	Risk management			
		Crop land	Grazing land			Voluntarily given	Compensated		
							In kind/land (m <sup>2</sup> )	Cash (birr)	Both (m <sup>2</sup> , & birr)
1.									
2.									
Total									

## Name and signature of parties

Parties	Name	Signature	Date	Remarks
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# INSTITUTIONAL ARRANGEMENT

**Who should do the risk analysis, SECR management and monitoring plan, implementation and monitoring?**

- *Woreda water office*
- *Woreda education office*
- *Woreda health office.*

Woreda office of Agriculture & NR give technical support

**Risk assessment and management should be done by the team of experts, mainly:**

- ✓ *water supply engineer,*
- ✓ *Geologists/hydrogeologist (or technical experts that do these jobs)*
- ✓ *NRM expert from Agriculture and Natural Resources office),*
- ✓ *Environmental health expert from Health Office*

**Kebele level:**

- *HEW*
- *NRM DA*
- *The community*

**Regional & Zone level**

- *RSU & BoW*
- *Zone WASH sector dep'ts*

**MoU BoA!!! & bringing in board**

# INSTITUTIONAL ARRANGEMENT

## **Reporting**

- ✓ # of COWASH project activities screened
- ✓ # of SECRM plan
- ✓ # of plan implementation started

- ❑ **CMP supervisor**
- ❑ **Part of the COWASH report**
- ❑ **Under output 1.5**
- ❑ **CMP to RSU and then to FTAT**

# TRAINING

## 1. Region to zone and woreda experts: when they are giving CMP/appraisal training

- ✓ *Zone water supply engineer*
- ✓ ***Zone NRM expert***
- ✓ ***Zone Environmental health expert***
- ✓ *Water supply expert and CMP supervisor*
- ✓ *Hydrogeologist/geologist*
- ✓ *NRM expert*
- ✓ *COWASH Focal Persons (Education & Health)*

## 2. Woreda will orient:

- ***NRM DAS and HEWs when they are giving KWT training on CMP management.***
- ***Thde community during promotion***

# TEMPLATE FOR MINUTES OF CONSULTATION

1. Date:\_\_\_\_\_; 2: Time:\_\_\_\_\_

3. Place:Region\_\_\_\_\_; Zone:\_\_\_\_\_; Woreda\_\_\_\_\_; Kebele\_\_\_\_\_; Village\_\_\_\_; WP\_\_\_\_\_

4. Participants (their names and signatures):

*4.1. Land owner:*

*4.2. Kebele administrator:*

4.3. Community (name and signature of of the beneficiary community should be registered and attached with this minutes)

5. Agendas: To discuss with the land owner/s on land to be taken from him/her for the purpose of water point construction.

6. Issues discussed and agreement reached.

**THANK YOU**