CEDRIG Light

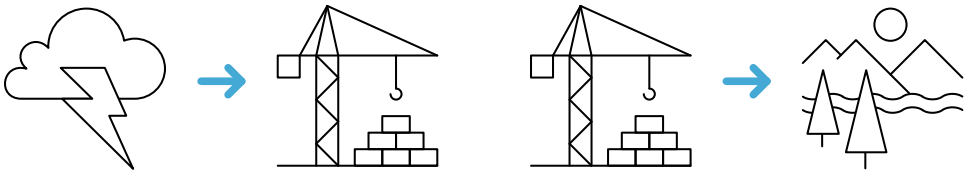
RAPID SCREENING

Climate, Environment and Disaster Risk Reduction Integration Guidance (CEDRIG)

Introduction

Aim: The Rapid Risk and Impact Screening (CEDRIG Light) serves as an initial filter to assess whether a strategy, programme or project (hereafter called activity) is potentially at risk due to climate change, environmental degradation or natural hazards; it also aims to determine whether an activity may have a negative impact on greenhouse gas (GHG) emissions or the environment, or whether it creates new or exacerbates existing risks.

It helps to decide whether or not a detailed assessment (CEDRIG Strategic or CEDRIG Operational) is recommended.



Risk Perspective

Impact Perspective

How: CEDRIG Light is designed to be completed in a straight forward and quick manner; it can be conducted with only minimal knowledge of climate change, environmental degradation and natural hazards.

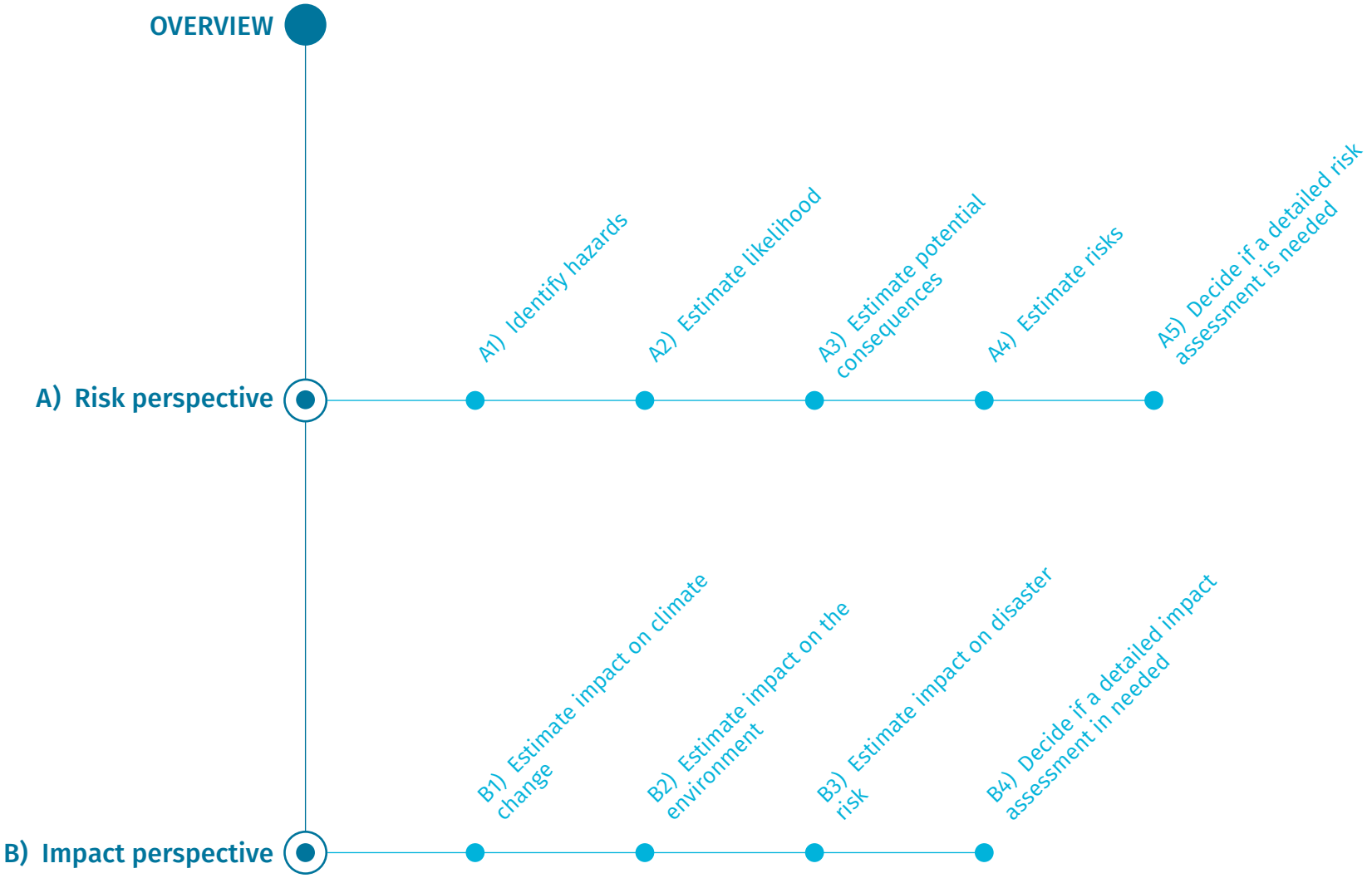
What is needed: CEDRIG Light can be done without access to detailed data or information. A document describing the main components of the activity or a draft should be available, ideally a logical framework.

Who: CEDRIG Light is proposed to be conducted individually (e.g. by the project manager or project officer) or in a small group.

When: Ideally, CEDRIG Light is applied at the very beginning of the planning process of a new activity. It can also be used while implementing an activity to check its sensitivity with regard to climate change, environmental degradation and natural hazards.

Duration: Maximum one hour.

Result: CEDRIG Light provides an overview that helps to decide whether or not to conduct a detailed assessment. If so, you will be guided either to CEDRIG Strategic (programme/strategic level) or CEDRIG Operational (project level).


OVERVIEW
A) Risk perspective
A1) Identify hazards
A2) Estimate likelihood
A3) Estimate potential consequences
A4) Estimate risks
A5) Decide if a detailed risk assessment is needed
B) Impact perspective
B1) Estimate impact on climate change
B2) Estimate impact on the environment
B3) Estimate impact on disaster risk
B4) Decide if a detailed impact assessment in needed

Overview

General Information

Strategy, programme or project title

Overall goal

Country/Region

Budget

Please specify the amount of resources allocated to fund this project or strategy/ programme. Please specify also the currency used.

Duration of the strategy, program or project

Description and Keywords

Description (maximum 5 lines)

Please, give a brief description of the activity here. Specify the main components according to the logical framework if available (objectives, outcomes, outputs, activities)

Keywords (maximum 10)

Please provide some keywords to describe the activity such as sectors of intervention (agriculture and food security, health, water and sanitation, education, natural resources management, forestry, biodiversity conservation, rural development, urban development, tourism, energy, construction, transport, infrastructure) or /and ecological zones (arid/ semi-arid zones, tundra, mountain ecosystems, tropical/sub-tropical forests, primary forests, small islands, coastal regions, lake/lagoon zones, deltaic areas, flood plains, alluvial fans, peatlands).

This will help other members of the CEDRIG community to learn from similar applications.

A) CEDRIG Light - Risk perspective

The first part of CEDRIG Light is done by completing Steps A1 to A5. This assessment is based on a quick scan of hazards and their consequences as important disaster risk components.

Step A1 – Identify hazards

Task: For each hazard in the list, check if it is present in area(s) where your activity is taking place (yes, no, not sure).

You can refer to the following links, among others:

- *Think Hazard for a quick overview of natural hazards: http://thinkhazard.org/*
- *GFDRR Country Profiles for an overview of natural and climatic hazards: http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile*
- *National reports on the environment and national communications submitted to environmental conventions, e.g.*
  - *For the Convention on Biological Diversity: https://www.cbd.int/countries/*
  - *For the UN Framework Convention on Climate Change: http://unfccc.int/national_reports/non-annex_i_natcom/submitted_natcom/items/653.php*

Step A2 – Estimate likelihood (or extent)

Task: Estimate the likelihood of occurrence of the identified hazards based on the past and future trends: unlikely, likely, very likely. Likelihood (=probability) can be categorised as “unlikely” (once in a life time i.e in 80-100 years), “likely” (once in a generation i.e.in 20-30 years), “very likely” (very few years i.e. in less than 10 years).

In cases of potentially gradual degradation such as soil pollution, deforestation, desertification, likelihood refers to the extent: limited extent = unlikely, moderate extent = likely, large extent =very likely.

Step A3– Estimate potential consequences

Task: Explain briefly how the components of the activity could be affected by the identified hazards (Step 1) and specify the severity of the consequences for the activity (slightly harmful, harmful, or extremely harmful).

The same hazard can affect different components of the activity. The potential consequences could be houses little damaged (slightly harmful), substantially damaged (harmful), destroyed (extremely harmful); harvest little affected (slightly harmful), substantially affected (harmful), destroyed (extremely harmful); road connection interrupted for a few hours (slightly harmful), few days (harmful), several weeks or longer (extremely harmful).

Step A4 – Estimate risks

Task: Risk is a combination of likelihood (Step A2) and consequences for the activity (Step A3). Estimate the significance of the risks that could compromise the achievement of the activity (high/medium/low) with the help of the matrix provided below.

Please note that in CEDRIG Operational or CEDRIG Strategic, an in depth analysis of risk components will be conducted including hazard, exposure, vulnerability and coping capacity.

	Slightly harmful	Harmful	Extremely harmful
Likely			
Unlikely			
Highly unlikely			

Low risk Medium risk High risk

Step A5 – Decide if a detailed risk assessment is needed

Task: Based on the estimation of risks (Step A4), decide if a detailed risk assessment should be carried out.

No detailed risk assessment is necessary if all risks are low (green); a detailed risk assessment is necessary if at least one risk is high (red) or at least two risks are medium (yellow).

Note that in cases where the effects are not clearly perceived (i.e. if you marked “not sure” several times when identifying hazards in Step A1 or if you found it difficult to identify consequences in Step A3), it might still be advisable to conduct a detailed assessment.

Fill in the following table by completing steps A1 to A4.

NATURAL HAZARDS (HYDRO-METEOROLOGICAL AND GEOLOGICAL)						
Step A1				**Step A2**	**Step A3**	**Step A4**
Hazards	**Yes**	**Not sure**	**No**	**Likelihood**	**Consequences**	**Risk Significance**
Heat waves						
Extreme cold						
Heavy snowfall						
Hail storms						
Droughts						
Storms, tornadoes, hurricanes, strong winds, sandstorms						
Volcanic eruptions						

Step A1				Step A2	Step A3	Step A4
Hazards	**Yes**	**Not sure**	**No**	**Likelihood**	**Consequences**	**Risk Significance**
Earthquakes						
Tsunamis						
Mudslides, landslide						
Rock-, snow-, ice-avalanches						
Flash floods, floods						
Debris flows (mix of water and debris)						
Wildfires						
Other: please specify						

HAZARDS ARISING FROM ENVIRONMENTAL DEGRADATION						
Step A1				**Step A2**	**Step A3**	**Step A4**
Hazards	**Yes**	**Don't Know**	**No**	**Likelihood**	**Consequences**	**Risk Significance**
Desertification						
Deforestation						
Degradation (land, soil, ecosystems, biodiversity)						
Soil pollution						
Salinization						
Water pollution (surface and subterranean)						
Air pollution						

Step A1				Step A2	Step A3	Step A4
Hazards	**Yes**	**Don't Know**	**No**	**Likelihood**	**Consequences**	**Risk Significance**
Pest and epidemics						
Chemical hazards (pesticides, chemicals)						
Other: please specify						

HAZARDS ARISING FROM CLIMATE CHANGE (AND CLIMATE VARIABILITY)						
Step A1				**Step A2**	**Step A3**	**Step A4**
Hazards	**Yes**	**Don't Know**	**No**	**Likelihood**	**Consequences**	**Risk Significance**
General trends towards higher or lower mean annual temperatures						
General trend towards an increase or decrease in average rainfall						

Step A1				Step A2	Step A3	Step A4
Hazards	**Yes**	**Don't Know**	**No**	**Likelihood**	**Consequences**	**Risk Significance**
Changes in frequency and intensity of climatic extreme events and associated disasters (e.g. cold and heat waves, flood, drought, storms, hurricanes, cyclones)						
Shifts in season						
Raised sea level and increased coastal erosion						
Acceleration of desertification and soil erosion processes						
Other: please specify						

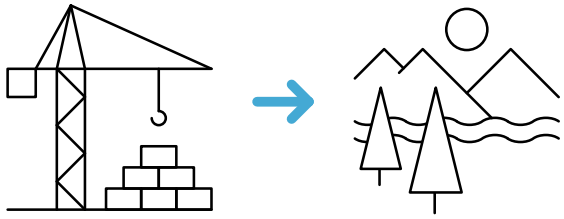
Step A5 – Decide if a detailed risk assessment is needed

◯ YES ◯ NO

B) CEDRIG Light - Impact perspective

The second part of CEDRIG Light is done by completing Steps B1 to B4. This assessment is based on a quick scan of potential negative impacts triggered by the implementation of the components. It is important to keep in mind the potential negative impact beyond the timeframe of the activity and to consider the entire life cycles of the components.

The final result from the quick impact screening is a gross overall estimate of the potential negative impact of the activity on GHG emissions, the environment, and the creation or exacerbation of disaster risks. This estimate is used to decide whether or not a detailed assessment should be carried out by applying CEDRIG Strategic or CEDRIG Operational.



Impact Perspective

Step B1 – Estimate impact on climate change

Task: Identify the components of the activity (during the activity's timeframe and beyond) which might have a negative impact on climate change by increasing GHG emissions or decreasing carbon sinks.

Examples of increased GHG emissions: *transportation, energy generation and consumption (e.g. for heating, cooling or construction) or methane production (e.g. via digestion processes of cattle and other ruminants or manure).*

Examples of decreased carbon sinks: *deforestation or changes in land-use and vegetation cover.*

Step B2 – Estimate impact on the environment

Task: For each of the environmental areas, identify which components of the activity (during the activity's timeframe and beyond) might have a negative impact and explain how.

Examples of negative impacts on water: *Impacts of infrastructure on natural water regimes; contamination of water through pesticides, chemicals; reservoir sedimentation; water pollution, changes in groundwater resources; depletion of water resources.*

Examples of negative impacts on air: *Release of air pollutants by operation of buses, cars, airplanes, ships, trains, etc.; release of air pollutants by generation and distribution of energy (e.g. a diesel generator); release of air pollutants from heating and construction of buildings.*

Examples of negative impacts on ecosystems: *Impacts of infrastructure on ecosystems etc. (e.g. new access roads) cutting wild life migration/movement; selection of highly productive varieties/ species leading to a loss of biodiversity;*

Examples of negative impacts on soils: *Impacts of infrastructure on soil; contamination of soils through pesticides, chemicals; soil degradation, desertification, erosion and acidification; microbial transformation of nitrogen fertilizers in the soil.*

Step B3 – Estimate impact on disaster risks

Task: Identify components of the activity (during the activity's timeframe and beyond) that could create new risks or exacerbate existing ones. The creation of new risks or exacerbation of existing ones by the activity can be due to the displacement to a hazardous area (increased exposure to hazards) or/and to the modification of the hazards' characteristics (more intense, more frequent) or/and to an increased vulnerability to a hazard.

Example of negative impact on exposure: *The construction of transport infrastructure in hazardous zones might lead to maladaptation; new roads might be weather-proof, even taking future climate into account, but they might trigger new human settlements in areas at high risk for particular climate impacts (e.g. coastal zones vulnerable to sea-level rise.*

Example of negative impact on hazard characteristics: *Part of rural development, the construction of a canal to prevent the risk of upstream floods, limiting its role of a buffer, can trigger downstream floods; Economic growth can be improved through more productive agriculture, better urban manufacturing and customized services based on improved water supply. However, groundwater extraction exceeding the rate of recharge could exacerbated the risk of future droughts; the development of new irrigated zones above or in landslide area might increase landslide risk.*

Example of impact on vulnerability: *When increasing agricultural productivity to raise the income of the rural poor and generate rural jobs, some crops may be highly productive but have limited resistance to droughts or other unexpected events.*

Step B4 – Decide if a detailed impact assessment is needed

Task: Based on the estimation of impacts (Steps B1, B2, B3), decide if a detailed impact assessment is needed in order to better estimate the significance of the impacts and to identify corrective measures when necessary.

No detailed impact assessment is necessary if no component of the activity having a negative impact could be identified. A detailed impact assessment is necessary if at least one component of the activity could have a significant negative impact.

Note that in cases where you have doubts about the effects, it might still be advisable to conduct a detailed assessment.

Step B1 — Estimate impact on climate change

Component of the activity *(e.g. construction of roads)*	**Impact on climate change** *(e.g. More GHG emissions due to an increase in operation of cars)*

Step B2 — Estimate impact on the environment

Environmental area	**Component of the activity**	**Impact on environment**
Water		
Air		
Ecosystems		
Soil		

Step B3 — Estimate impact on disaster risks

Component of the activity	Exacerbated or newly created risk

Step B4 — Decide if a detailed impact assessment is needed

◯ YES ◯ NO