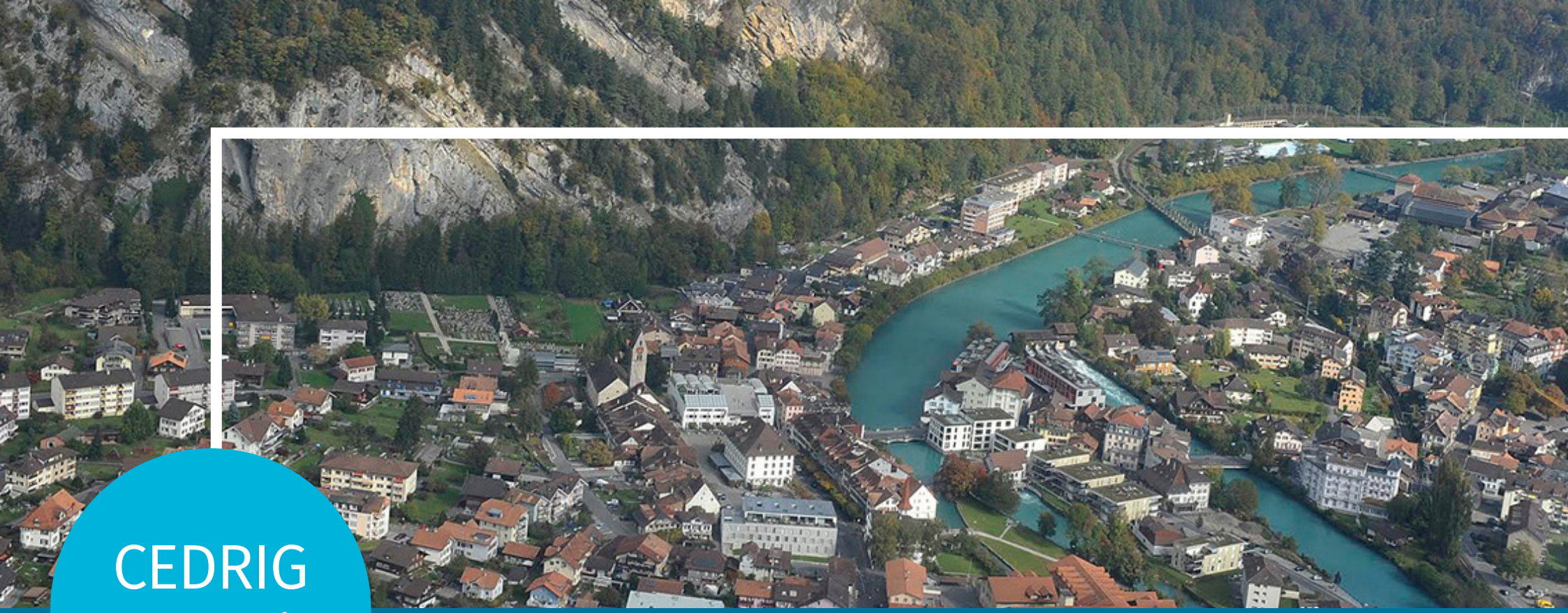


CEDRIG
Strategic

DETAILED ASSESSMENT AND INTEGRATION

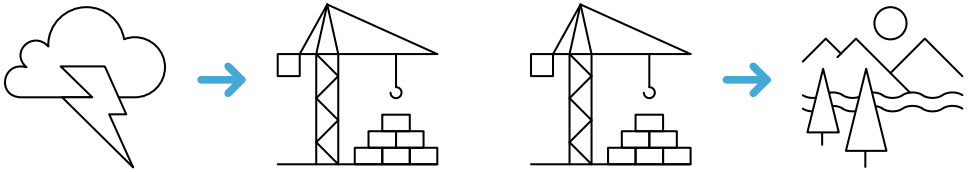
Climate, Environment And Disaster Risk Reduction Integration Guidance (CEDRIG)

Introduction

Aim: The aim of CEDRIG Strategic is to systematically integrate climate change, disaster risk reduction and environment at the strategic or programme level. CEDRIG Strategic helps to determine whether or not the strategic goals, aims or priorities are at risk of effects of climate change, at risk of disasters or at risk of the environmental degradation. It also aims at determining whether a strategy or programme may have a negative impact on climate or the environment, or whether it creates new or exacerbates existing risks ("do-no-harm" approach).

Integrating the three aspects in strategies or programmes increases the resilience of systems and communities towards climate change, disaster risks and environmental degradation.

The starting point is an in-depth context analysis followed by a detailed assessment from a risk and from an impact perspective.



Risk Perspective Impact Perspective

How: CEDRIG Strategic is proposed to be conducted as a multi stakeholder workshop. It requires a thorough preparation. A choice needs to be made about a full (risk and impact perspective) or only a partial (risk or impact perspective) detailed assessment.

What is needed: CEDRIG Strategic requires an in-depth context analysis in the area of the strategy or programme, describing the climate change, disaster risk and environmental conditions. This analysis needs to be done prior to the workshop and can be carried out by external experts. The results shall be presented to the participants at the beginning in order to provide a common ground for the subsequent detailed assessment.

Furthermore, a document describing the main components of the strategy/programme or a draft of it should be available, possibly a logical framework.

Who: CEDRIG Strategic involves key responsible staff and selected partners. It is recommended to benefit from an external facilitator familiar with the CEDRIG tool.

When: Ideally, CEDRIG Strategic is applied at the very beginning of the planning process of a strategy/programme or at the mid-term review.

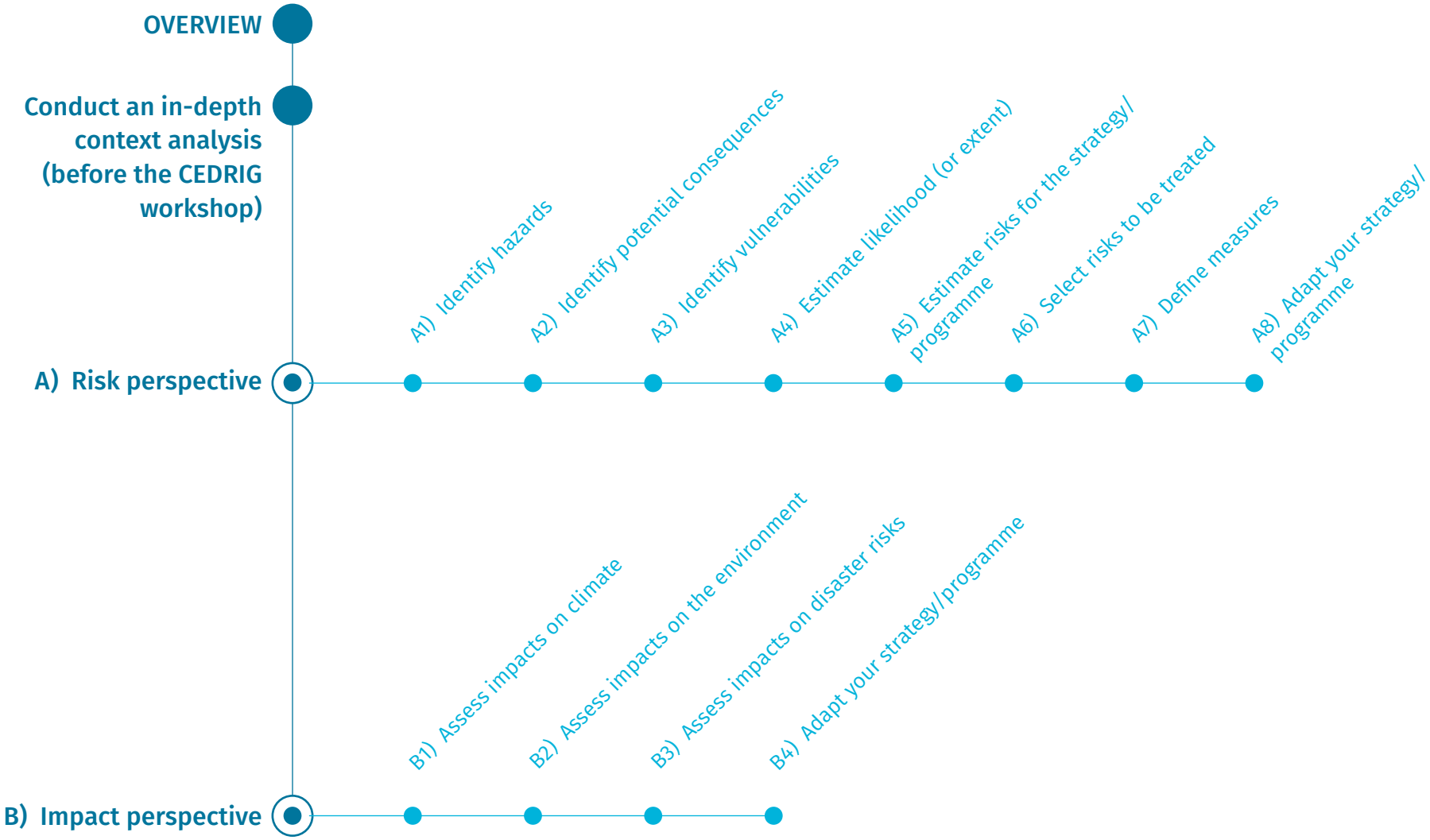
Duration: Approximately one day.

Result: Applying CEDRIG Strategic helps to achieve three complementary goals:

1) Creation of a shared understanding on the relevance of climate change, disaster risk and environmental aspects;

2) Identification of possible risks which may affect the targeted achievements of the strategy/programme as well as potential negative impacts by the intervention;

3) Integration of necessary measures and/or risk reduction options into the strategy/programme (possibly in the results framework).


OVERVIEW
Conduct an in-depth context analysis (before the CEDRIG workshop)
A) Risk perspective
A1) Identify hazards
A2) Identify potential consequences
A3) Identify vulnerabilities
A4) Estimate likelihood (or extent)
A5) Estimate risks for the strategy/ programme
A6) Select risks to be treated
A7) Define measures
A8) Adapt your strategy/ programme
B) Impact perspective
B1) Assess impacts on climate
B2) Assess impacts on the environment
B3) Assess impacts on disaster risks
B4) Adapt your strategy/programme

Overview

General Information

Strategy or programme 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 or programme

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.

In-depth context analysis (information to be collected prior to the workshop)

Based on the rapid screening of CEDRIG Light, it was concluded that a detailed assessment needs to be carried out. This requires more research, including the collection and analysis of primary and secondary information from different sources about climate change, disaster risks, environment, and economic and political factors. The result of the in-depth context analysis should be presented to the participants at the beginning of the workshop.

Prior to the workshop, collect information and analyse the context of climate change, disaster risks and environment with a particular focus on the area of the strategy/progamme. You may:

Task 1: Identify the most important climate change related, natural and environmental hazards (past, present and future).

To do this, consider local perceptions and take into account primary and secondary information; if needed consult experts. Remember that the main characteristics of hazards are likelihood (one or more times a year, every 2-4 years, every 10 years or less frequently) and intensity (low, medium, high, very high). In cases of potentially gradual degradation such as soil erosion, deforestation, desertification, hazards are rather characterized by their extent.

Links:

Past disasters:

- *DESINVENTAR : more detailed, covers 82+ countries (hosted by UNISDR) http://www.desinventar.net*
- *EM-dat is an international database on past disasters. You can find core data on occurrence and effects of disasters from 1900 to present per country http://emdat.be*
- *Munich RE NatCatSERVICE: http://www.munichre.com/en/reinsurance/business/non-life/natcatservice/annual-statistics/index.html (requires registration for datasets older than the last year)*
- *Germanwatch Global Climate Risk Index: The annually published Global Climate Risk Index analyses to what extent countries have been affected by the impacts of weather-related loss events (storms, floods, heat waves etc.). http://germanwatch.org/en/cri*

Risk by country:

- *INFORM is a global, open-source risk assessment for humanitarian crises and disasters. You can find information per country on hazards, vulnerabilities and risks http://www.inform-index.org/*
- *Global Assessment Reports (UNISDR), produced every 2 years, by country http://www.preventionweb.net/english/countries/*
- *GFDRR Climate Risk and Adaptation Country Profiles (88 countries). http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile*

Task 2: Compile the official policies, strategies, and plans related to climate change, disaster risk reduction and environment both at national and sub-national level; map the involved/concerned actor groups at all levels; extract the key elements relevant for the strategy/programme.

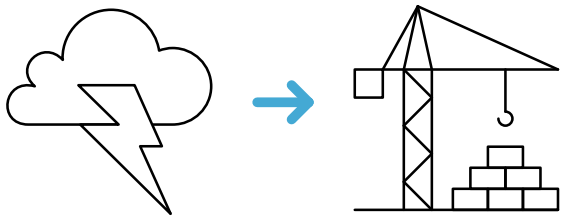
Consult the following available national information sources as appropriate:

- *National Communications to the United Nations Framework Convention on Climate Change (UNFCCC); National Adaptation Programmes of Action (NAPAs, for LDCs11); in future National Adaptation Plans (NAPs);*
- *National implementation reports (e.g. midterm review, HFA Monitor) of the UN ISDR's HFA 2005–2015 and Sendai Framework for Disaster Risk Reduction 2015-2030; National disaster risk management strategies (e.g. preparedness strategies), GFDRR's Country Programmes;*
- *National Environment Action Plan of the respective country or other links outlined in the "Recommended links and supporting material";*
- *Common Country Assessment (CCA) of the United Nations Development Assistance Framework, World Bank Country Assistance Strategies (CAS); World Bank's Country Environmental Analysis (CEA);*

Task 3: Review relevant development interventions and extract the main lessons learned (good and bad practices , for example); identify eventual gaps and needs for further studies.

Analyze to what extent development efforts have considered the integration of these aspects in their priorities. Assess the effectiveness, impact and pertinence of development efforts targeting climate change, disaster risks and environment related challenges.

A) CEDRIG Strategic - Risk perspective



Risk Perspective

Step A1 – Identify hazards

Task: Select the hazards arising from climate change, natural hazards and environmental degradation that will or could affect the strategy/programme.

Review and adjust the hazards presented during the in-depth context analysis. Keep in mind the observed and expected future changes in climate and environmental degradation identified in the detailed context analysis.

Step A2 – Identify potential consequences

Task: By reviewing the document describing the main components of the strategy/programme or a draft of it, specify which goals, objectives, or priorities could be at risk from the respective identified hazards and explain what the consequences would be. Specify the severity of the consequences for the component (slightly harmful, harmful, or extremely harmful).

The potential consequences that the hazards may cause can vary substantially depending on the strategic goals and/or outcomes, outputs, activities of the strategy/programme.

The same hazard can affect different components of the strategy/programme. The potential consequences of drought could be a light increase in wheat price (slightly harmful), substantial increase (harmful), major increase (extremely harmful).

Step A3– Identify vulnerabilities

Task: For each potential consequence on the strategy/programme (Step A2), identify the vulnerabilities explaining the root causes of the consequence. It is a crucial step that will allow identifying measures in later steps to reduce the risks for the cooperation/programme.

The consequences of a hazard, such as a hydrological drought could be explained by a strong vulnerability to this hazard, for example if there isn't a strong drought monitoring and early system in place, lack of saving opportunities.

The various types of vulnerabilities could be classified as follow:

- *Social vulnerabilities: poor social resources, including lack of informal networks, weak relationships of trust that facilitate cooperation and inclusion of vulnerable groups*
- *Natural vulnerabilities: over exploitation of natural resources such as land, soil, water and forests*
- *Financial vulnerabilities: resources including lack of savings, credit, insurance opportunities and low income from employment, trade and remittances*
- *Political vulnerabilities: poor opportunities to influence political decision-making, weak*

formal and informal participation, lack of access to political processes, restriction on freedom and capacity to collectively organize and declare rights

- *Physical vulnerabilities: poor basic infrastructure (roads, water and sanitation, schools, information and communication technology (ICT) and manufactured goods – tools, equipment)*
- *Human vulnerabilities: poor knowledge of risks, poor health condition of the population and low ability to work.*

Step A4 – Estimate likelihood (or extent)

Task: Estimate the likelihood of occurrence of each 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" (every 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 of the phenomenon: limited extent = unlikely, moderate extent = likely, large extent =very likely.

Step A5 – Estimate risks for the strategy/programme

Task: Risk is a combination of consequences for the strategy/programme (Step A2) and likelihood (Step A4). Estimate the significance of the risks for the strategy/programme (high/medium/low) with the help of the matrix provided below.

	Slightly harmful	Harmful	Extremely harmful
Likely	🟠	🔴	🔴
Unlikely	🟢	🟠	🔴
Highly unlikely	🟢	🟢	🟠

🟢 Low risk 🟠 Medium risk 🔴 High risk

Step A6 – Select risks to be treated

Task: Analyze for all the risks identified in the previous step if they have been adequately addressed in the process of strategy/programme development. Define which ones still need to be treated, taking into account appreciation and level of acceptable risk.

This is a very important decision, as the selection is a process of subjective negotiation in which aims, institutional interests and elements of internal and external context are involved.

Step A7 – Identify measures

Task 1: Discuss and identify possible measures to reduce the risks selected in Step A6. Reducing the vulnerabilities identified under Step A3 helps in identifying measures. Furthermore, take into account the coping strategies that have been adopted in the past or that are currently being adopted by the community or local authorities as an important element of the measures to be taken.

You may think of new component or adjusting existing components of the strategy/programme. Furthermore, you may think of very specific measures or general measures referring to the whole strategy/programme. It is important to emphasize that the society normally has plenty of experience in managing the risks. It is therefore important to consider local knowledge and coping strategies, which are often an important entry point for defining measures.

Step A8 – Adapt your strategy / programme

Task: Include the measures identified under step A7 in the strategy/programme and upload the adapted document.

Step A1	Step A2	Step A3	Step A4	Step A5	Step A6	Step A7
Hazards	**Consequences**	**Vulnerabilities**	**Likelihood**	**Risk significance**	**Adequately addressed or to be treated**	**Measures**

Step A8 – Adapt your strategy / programme

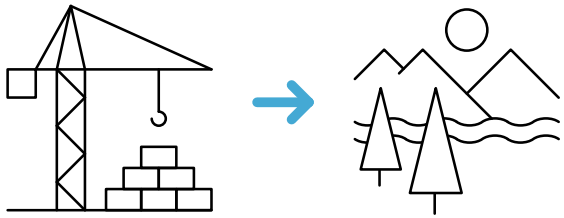
B) CEDRIG Strategic - Impact perspective

The impact perspective will help you to become more aware of significant negative impacts that a strategy/programme can have on climate or on the environment, or whether it creates or exacerbates existing risks.

There can also be potential opportunities arising from the components of the strategy/programme associated with the reduction of negative impacts on climate, on the environment and on disaster risk. For instance, component at community level that modify the energy sources, from coal to renewable energy, would have the double effect of reducing greenhouse gas (GHG) emissions and providing opportunities related to the independence of the energy supply (e.g. use of local biomass).

While the CEDRIG approach is not as comprehensive as a regular Environmental Impact Assessment (EIA) it still helps to raise awareness and flag potential unintended negative impacts.

The workshop participants shall collectively follow the subsequent steps B1 to B4, complete the respective tasks and capture the results in the table further down.



Impact Perspective

Step B1 – Assess impacts on climate

Fill up the table by accomplishing the following taks:

Task 1: Define the most relevant components of the strategy/programme that could have a negative impact on the climate. Specify these potential negative impacts (e.g.GHG emissions). Furthermore, think about components that could lead to maladaptation.

Maladaptation is a business-as-usual development which by overlooking climate change impacts, inadvertently increases exposure and /or vulnerability to climate change. Maladaptation could also include actions undertaken to adapt to climate impacts that do not succeed in reducing vulnerability but increase it instead.

Some components of your strategy/programme could have negative impacts, for example rural energy development, acceptable from a development perspective but potentially leading to increased GHG - eventually also air pollutants.

Task 2: Estimate the significance of the potential negative impacts identified in the previous step (significant or not significant).

CEDRIG recognizes the subjectivity of the term "significance".

*The two key characteristics of negative impacts that should be considered in determining significance are "**magnitude**" and "**importance**". **Magnitude** assesses quantifiable factors such as the size or the extent of an impact e.g. the quantity of GHG produced by an agriculture development project. **Importance** relates to the subjective degree of disturbance according to the sensitivity or vulnerability of the system. Other factors such as the duration of the impact, its frequency, probability, or degree of reversibility, can help in estimating the significance.*

Task 3: For each significant impact, brainstorm about possible climate change mitigation measures by adding new components or by adjusting the existing ones of your strategy/programme and select the most suitable ones.

Mitigation (of climate change) refers to human interventions aimed at reducing the emission of GHG at the source or at enhancing carbon sinks (IPCC 2007).

Adaptation (to climate change) refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities (IPCC 2007).

Please note that several climate change mitigation measures may also serve as adaptation measures.

Step B2 – Assess impacts on the environment

Fill up the table by accomplishing the following taks:

Task 1: Define the most relevant components of the strategy/programme that could have a negative impact on the environment (on air, soil, water, ecosystems, biodiversity). Specify these potential negative impacts.

Task 2: Estimate the significance of the potential negative impacts identified in the previous step (significant or not significant).

CEDRIG recognizes the subjectivity of the term "significance".

*The two key characteristics of negative impacts that should be considered in determining significance are "**magnitude**" and "**importance**". **Magnitude** assesses quantifiable factors such as the size or the extent of an impact e.g. the area of flooded forest by a dam impoundment. **Importance** relates to the subjective degree of disturbance according to the sensitivity or vulnerability of the system. Other factors such as the duration of the impact, its frequency, probability, or degree of reversibility, can help in estimating the significance.*

Task 3: Brainstorm about possible (new or adjusted) measures and select the most suitable ones for ensuring that the significant negative impact by the strategy/programme will not happen.

Mitigation (environmental impact) is a term that can also be applied for reducing environmental impacts other than GHG.

Step B3 – Assess impacts on disaster risks

Fill up the table by accomplishing the following taks:

Task 1: Define the components of the strategy/programme that could create new risks of disasters or exacerbate the existing ones. Specify the risk (increasing/ creating exposure, vulnerability, increasing frequency/ magnitude of hazards).

Task 2: Estimate the significance of the potential negative impacts identified in the previous step (significant or not significant).

CEDRIG recognizes the subjectivity of the term "significance".

*The two key characteristics of negative impacts that should be considered in determining significance are **"magnitude"** and **"importance"**. **Magnitude** assesses quantifiable factors such as the size or the extent of an impact e.g. the length of a road section damaged by a landslide triggered by a construction site. **Importance** relates to the subjective degree of disturbance according to the sensitivity or vulnerability of the system. Other factors such as the duration of the impact, its frequency, probability, or degree of reversibility, can help in estimating the significance.*

Task 3: For each significant impact, brainstorm possible (new or adjusted) measures and select the most suitable ones for ensuring that the strategy/ programme doesn't contribute to the buildup/exacerbation of existing risks.

Step B4 – Adapt your strategy/programme

Task: Include the measures identified under steps B1, B2 and B3 in the strategy/ programme and upload the adapted document.

Furthermore, a final overall evaluation is recommended to determine whether the measures selected and included in the strategy/programme would have adequately addressed the negative impacts identified.

Step B1 – Assess impacts on climate

Component of the strategy/ programme	Potential negative impact on climate (Task 1)	Significance of the impact (Task 2)	Mitigation measures (Task 3)

Step B2 – Assess impacts on the environment

Component of the strategy/ programme	Potential negative impact on the environment (Task 1)	Significance of the impact (Task 2)	Mitigation measures (Task 3)

Step B3 – Assess impacts on disaster risks

Component of the strategy/ programme	Potential negative impact on disaster risk (Task 1)	Significance of the impact (Task 2)	Measures (Task 3)

Step B4 – Adapt your strategy/programme