

CCRA Methodology

This methodology was prepared which covers all climate related risks and opportunities of the planned project to prepare a complete CCRA report (complies with EP4 and TCFD requirements) for the proposed Mersin-Adana-Gaziantep (MAG) High Standards Train Project.

The methodology to be followed can be summarized as follows.

Determine Reporting Landscape:

The reporting landscape is the collection of organizations, initiatives, requirements and supporting infrastructure.

Core Elements:

Report will be structured around four thematic areas that represent core elements of how organizations operate: governance, strategy, risk management, and metrics and targets.

Risk and Opportunities:

In order to make more informed financial decisions climate-related risks and opportunities will be analyzed as it shown in the following figure.



Scenario Analysis:

The purpose of scenario analysis (Data sources will be IPCC and Ministry of Energy national emission factors) is to consider and better understand how the business might perform under different future states (i.e., its resiliency/robustness). In the case of climate change, climate-related scenarios allow organization to explore and develop an understanding of how the physical and transition risks and opportunities of climate change might plausibly impact the business over time.

The transition risk assessment should include:

-Anticipated business impacts for each scenario across the main impact categories (see your figure above): input costs, operating costs, revenues, supply chain, business interruption, assets & liabilities, capital & finance

-Identification of key sensitivities through review of the current governance structure and Project strategy to address climate risks.

-Risk assessment that identifies risk factors, mitigation actions and opportunities, alongside data gaps

A critical aspect of scenario analysis is the selection of a set of scenarios that cover a reasonable variety of future outcomes, both favorable and unfavorable. While there is an almost infinite number of possible scenarios, at a minimum, a 2°Celsius (2°C) scenario and using other scenarios (RCP 4.5 and RCP 8.5 scenarios were used) most relevant to the organization's circumstances, such as scenarios related to Nationally Determined Contributions (NDCs), business-as-usual (greater than 2°C) scenarios, physical climate risk scenarios, or other challenging scenarios will be used.

The physical risk assessment should include:

- Review of climate model predictions for the region, focusing on evaluating changes that may affect the project in the future, e.g. precipitation, temperature, storms etc. (partially covered above)
- Engagement with design team to identify any embedded mitigation.
- Qualitative physical risk scenario screening. Please provide the proposed risk assessment framework/matrix.
- Recommendations for additional mitigation to improved the resilience of the project.

Water Related Risks and Opportunities:

Water-related financial information, will be described as part of an overall water management approach, supporting the effective implementation of water-related policies and strategies. The process will be used as a tool to support internal decision-making by improving the company's understanding of the water-related impacts, dependencies, risks and opportunities. Water related risks and opportunities will be assessed according to CDSB guidelines.