

APPENDIX B. Sustainability, Social License, & Environmental Justice

The following questionnaire will be available as a fillable form on POP:



XPRIZE
CARBON
REMOVAL

MUSK FOUNDATION

Sustainability, Social License, & Environmental Justice Phase 1 Submission Questionnaire

Overview: Environmental Justice (EJ) is a critical component of climate innovations and solutions. Historically, issues of equity and justice have been considered very late in the lifecycle of a project, if at all. Experience in many industries and communities has shown that this leads to worse outcomes for solution developers and local communities. In an effort to establish a more productive conversation around EJ and carbon dioxide removal, we are introducing equity and justice considerations earlier in the development cycle of new solutions, so that issues can be identified and addressed well before project implementation. We understand that many solution developers are not experts in EJ — that is why we see this process as one of learning and exploration. Judges will have access to these questions and to your responses, but they will not be used for the Phase 1 Milestone Award submissions to either award or eliminate any team from the competition at this stage. XPRIZE will then work with Carbon180 to refine the requirements for EJ considerations in Phase 2.

Over the course of the XPRIZE Carbon Removal, the collective data and experience of the teams competing in the prize will be analyzed by a panel of EJ advocates organized by Carbon180. The learnings from these experiences will be published for the benefit of the carbon dioxide removal community. All data collected on this form will be aggregated and anonymized in any analysis.

Reading Materials

Please familiarize yourself with the resources on the [provided list available here](#), and fill in this questionnaire with these materials in mind.

Submission Questions

Project Description

1. Provide an overview of your demonstration project for the XPRIZE Carbon Removal. (200 words)

Our demonstration involves several ongoing projects around the world. Each demonstrates a technique of land restoration that focuses on holistic management of the specific needs for their unique area. These projects sequester carbon by improving the quality of the soil, restoring the water cycle, and increasing the amount of ground cover, thus leading to a plethora of co-benefits.

In Egypt, the SEKEM Project is working on desert reclamation and have successfully converted over three thousand acres of barren landscape into healthy, productive ecosystem.

**SoilWatch project
Slovakia project**

Project Location

2. Where will your XPRIZE Carbon Removal demonstration project occur? Why did you choose the project location that you did for your carbon dioxide removal Project? Have you already started work at this location, or have your plans for this location been finalized? (100 words)

**Sekem: Egypt, going for 40+ years
SoilWatch:
Slovakia:**

Demographic Information

3. What are the demographics of the populations in the areas local to your demonstration project? What percentage are low income (X% below poverty line)? (100 words)

Need to ask Max, David, and Dusan

4. What existing environmental burdens have been identified in the local region of your proposed project? (100 words)

Environmental burdens are case specific. We have projects being conducted around the world, in a variety of biomes, and each comes with their own set of environmental burdens. Typically, we encounter destructive agricultural practices, deforestation, disruptive water management, and overconsumption of natural resources.

Need to ask Max, David, and Dusan

Legacy Pollution Analysis

5. How have you considered relevant public health data concerning the potential for exposure to human health and environmental hazards? Specific to the region you

identified in question 1, are there any historical patterns of exposure to environmental hazards, to the extent such information is reasonably available? (200 words)

Need to ask Max, David, and Dusan

Environmental Sustainability

6. For your demonstration project, what are the local environmental impacts from your project (including from your sources of energy and materials) on air and water quality, as well as biodiversity or other natural resources? Thinking ahead to the full deployment of your solution up to Gigatonne scale, how do the impacts change or grow as you move to Gigatonne scale?

a) What are the negative environmental impacts? (200 words)

None? Our goal is to improve the environmental conditions of functioning ecosystems.

b) What are the positive environmental impacts (aside from CO2 removal itself)? (200 words)

The positive environmental impacts of our projects are an increase to biodiversity in regenerated regions, which leads to increased soil quality, the restoration of the water cycle, and the active cooling of the Earth's surface.

Incorporating Community Engagement

7. What steps will you take to ensure that voices from the communities in which you are building projects are represented in a way that ensures their concerns are being met? (200 words)

Most, if not all, of our projects require the direct involvement of local communities to properly regenerate the land. This involves interacting with them before the project commences to establish what needs and issues are to be targeted by restoring the land.

Quantitative Assessment

8. Based on the provided EJ reading materials (see link above), discuss what you think are the most important EJ considerations for your project. (200 words)

9. Please rate your level of concern for each of the following issues as they relate to your project. Your selections will be used for research purposes only.

- a. Moral hazard - Moral hazard - the perception that the development of your CDR solution lessens or eliminates the urgency and need to reduce current GHG emissions
- b. Involvement of the oil and gas industry- any investments or ties to companies that participate in oil and gas
- c. Expansion of infrastructure (such as transportation pipelines or truck traffic)

- d. Land use competition (such as growing food, siting renewable energy, preserving biodiversity, and timber harvesting, among others)
- e. Environmental health (such as groundwater contamination or seismic activity)
- f. Workforce development - making sure good-paying, local jobs are readily available for community members
- g. Other (free entry)