

Restore Our Land – Iceland

Restoration and Carbon Sequestration on severely degraded land

SUMMARY

Project Description: HI Iceland joins forces with Landvernd, the Icelandic Environment Association in order to offset the CO2 emissions of staff and guests staying at the HI Iceland Hostels by offering them the chance to take part in restoration and carbon sequestration initiatives.

Project Type: Restoration and Carbon Sequestration on severely degraded land

National Association: Hostelling International Iceland

Project Location: In areas located in the vicinity of several HI Iceland Hostels

Estimation of number of reduced tonnes of CO2: 28 t CO2 per year

Total Funds Requested: £ 7,000

Total Project Cost: £ 25,314

Annual £ saves and ROI (return of investment):

The ROI of the proposed project is not financial, but rather will be directly visible on the restored land and increased commitment from the participants to take an active stance in this national environmental issue

Why this project should be funded ahead of others?

Iceland has long suffered from severe land degradation and desertification. Over 95% of original native birch woodland is lost since human settled the island one thousand years ago and about 40% of the country is now a barren desert or otherwise poorly vegetated. Therefore, Iceland offers extensive opportunities for restoration and carbon sequestration activities, including the off-setting of carbon footprint from HI travelers.

This pilot project forms the first phase of a larger participatory restoration project which HI Iceland plans to start with Landvernd (the Icelandic Environment Association), Iceland's leading environmental NGO. The project aims at restoring degraded land and sequestering carbon in soils and vegetation on severely denuded land, where access of machineries is limited and hand power needed.

The project connects to the interested HI Iceland hostels, their guests and other volunteering organizations, bringing them together towards a common goal.

Joining forces to address a national issue will not only have visible effects on the land but will encourage personal reflections and responsibility among participants.

Moreover, the project has a huge potential to significantly reduce carbon dioxide in the atmosphere and it aims at reaching over 1500 participants in practical events and over 1 mil others through audio and visual means.



DETAILED PROJECT INFORMATION

Purpose/objectives of the project activity

Iceland is seen from outside as one of the 'greenest' countries in the world, a country of wilderness, governed by the rules of nature. In 2012, it was estimated that one million tourists will visit the country by 2020 but this number has been reached already in 2014 (Icelandic Tourist Board, 2015). Despite the general view, the country's wilderness has decreased an overwhelming 68% from 1936 to 2010 (Taylor, 2011), due to anthropogenic activity and modern development, being covered today by only 1% forested area and 25% vegetation (Íslendingabók, 12th century).

The *Restore Our Land - Restoration and Carbon Sequestration in Iceland* project brings together two NGOs, HI Iceland, the Icelandic Hostel Association and Landvernd, the Icelandic Environment Association, in a joint project which addresses a national problem: land degradation and desertification which are considered the most serious environmental problems in the country. Moreover, the process of land recuperation is critical in Iceland, a country where tourism has become the most important field, followed by fisheries and the aluminium smelters.

The project aims at reducing the CO2 emissions caused by travelling by restoring severely degraded land through carbon sequestration initiatives meant to restore the biological diversity of the area.

The staff and guests of HI Iceland will be offered the chance to take part in the proposed initiatives by attending regular organized events. In this way they will have the chance not only to find out more about this issue but also to bring their direct contribution by planting native trees or other vegetation on degraded land.

The Overall Objective of the project is to: Offset the CO2 emissions of guests and staff staying at the HI Iceland Hostels by offering them the chance to take part in restoration and carbon sequestration initiatives developed together with Landvernd – the Icelandic Environment Association.

Specific Objective: Teach participants about the consequences of land degradation and ways to offset CO2 emissions

Through this project the participants will receive the tools needed to shift from a conventional thinking and practices to a sustainable, community based life, in harmony with the Icelandic fragile environment. The project aims at forming its participants as responsible citizens, able to face the current environmental issues and capable to pass the information further to the next generations.

Methodology (How)

The project is composed of the following:

- a) Identifying and creating a network of restoration experts, representatives of environmental NGOs, volunteering organizations and landowners, in addition to HI Iceland staff and national hostel representatives. The network will serve as a support team for the execution of this project, and different members of the network will take on various responsibilities within the project.
- b) Identifying three locations for future restoration activities, one in the East, one in the North and one in the South part of Iceland.
- c) Selecting one of these three locations to run a one year pilot on restoration of severely degraded land, involving all identified network stakeholders. Extent and severity of degradation needs to be analyzed and corresponding methods of restoration (i.e. species, fertilizers, etc.) determined. Then a team of 4 volunteers and project organizers will work for one week on restoration in this location. Also, means of evaluating restoration success and amount of carbon sequestered will be identified and those examine and calculated in due time.

- d) Evaluating the pilot, e.g. by surveying participants and stakeholders. Writing a report on success and/or failure of pilot and give insight into how to implement the project on a larger scale in co-operation with national HI hostels in Iceland and volunteering organizations.
- e) Organize regular events over the summer in which staff, guests and HI Iceland hostel owners can take direct part in the land restoration process.
- f) Work on developing other potential ideas: e.g. encourage customers to name their planted native tree and visit it regularly etc.

This project is a participatory project which strongly relates to increasing the sustainability of Icelandic soils and terrestrial ecosystems.

Outcome:

- A report on the outcome of the pilot, to be used to develop the future project.
- Identified areas to continue the project
- A network with relevant stakeholders, field experts, NGOs, volunteering organizations and landowners to act as a support team for the execution of the project.
- Get an estimation on how much (one unit of) volunteers can contribute per day to CO2 reductions and size of area restored

Practical Details:

Activity indicator: ecological measurements, surveys for participants, photos before and after, calculations of carbon sequestration, final report, participation, project video

Target groups: HI Iceland’ hostels, guests and staff, landowners, restoration experts

Implementation: Responsibility lies with HI Iceland and Landvernd

Success rate: a) ecological success; b) implementation success

Monitoring plan

Staff	Attributions	Indicators of success
<p>Project Coordinator (1 full time employee)</p>	<ul style="list-style-type: none"> • Organizes and coordinates the proposed activities, in collaboration with Landvernd – The Icelandic Environment Association • Promotes and implements the activities, creates final reports • Delegates tasks to the 3 volunteers and assures they are completed accordingly 	<p>Final activity reports, media reviews, participant’s surveys, regular reporting to the HI office</p>
<p>3 EVS (European Voluntary Service) volunteers (project granted by the Erasmus+)</p>	<p>Since 2006, the Reykjavik City Hostel has been hosting EVS volunteers in the Green Hostels programme, meant to raise awareness about sustainability issues among staff, guests and local community in Iceland. Currently there are 2 volunteers helping the Reykjavik Hostels maintain and improve the sustainability policy and practices.</p> <ul style="list-style-type: none"> • During the Restoration and Carbon Sequestration in Iceland project, the 2 volunteers will assist the Project Coordinator in implementing the proposed activities. Their role will be in assisting with the general organization, from creating promotional events and information, collecting and managing the surveys, encouraging staff and guests to take part etc. <p>Starting 2014, HI Iceland is hosting 1 EVS volunteer in the Life at the hostels project, meant to capture in photos and videos the sustainable practices developed at the HI Iceland hostels. The role of the volunteer in this proposed project will be to capture the development of the project and its results in a visual and inspiring way.</p>	<p>The Project Coordinator is responsible for supervising and coordinating the tasks delegated to the volunteers</p>



Contribution of the project activity to sustainable development

As defined by the United Nations' Brundtland Commission, sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Increased tourism plays an important role as the world has become very transparent and facilitates easy access from one country to another.

The proposed project and its activities, *Restoration and Carbon Sequestration*, is highly valuable to the concept of Sustainable Development as it reaches the youth, the travelers and the next generation which will face the consequences of climate change more than we do now. The project is reaching all 5 pillars of learning described by UNESCO – learning to know, to do, to be (ie., to assume one's duties and responsibilities) and to live together with others and touches all pillars of sustainability: environmental, social and economic.

Through the proposed activities, the project seeks not only to restore the land and reduce the carbon footprint of the participants and their actions but it offers an extra social sustainability benefit, as it brings people together in a common cause and facilitates the transfer of information from high minded notions into daily visionary practices.

Despite the visible climate changes worldwide, the tourism sector is more likely to increase in the future years and the project *Restoration and Carbon Sequestration* seeks way to offset part of the CO₂ emissions associated with travelling.

The proposed project aims at creating a viral community of stakeholders formed from landowners, field experts and the HI Iceland hostels which will share further the ideas and practices and moreover, HI Iceland aims at continuing it after the grant period.

Environmental impacts

The *Restore Our Land* project has a huge potential to significantly reduce carbon dioxide in the atmosphere and it can be replicated at other HI Associations worldwide.

Moreover, the project raises awareness not only about land degradation but also about CO₂ emissions caused by travelling, and will offer its participants relevant tools to reduce and even offset their CO₂ emissions by taking part in activities proposed.

In addition to this, restoration of degraded land also increases local biodiversity as the soil becomes richer in nutrients and organic material. As vegetation and soil builds up, soil and aboveground animals, both invertebrates as well as vertebrates will colonize these areas and increase biodiversity and ecosystem functioning.

Estimations of emission reductions (CO₂e tones)

	Seq. App.	Seq t / ha / yr	# ha	Total tones CO ₂ /year
Restoration and Carbon Sequestration on Severely Degraded Land	2,0t CO ₂ / ha /yr	2	14	28
Total Estimation of CO₂ Reduction	28 CO₂ tonnes per year			

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