



The importance of knowledge exchange



The picturesque waterfall Skógafoss. Next to it the stairway and the view-point at the top

SKÓGAHEIÐI

ICELAND

A reactive response to a problem can often cause a different problem at a different and unforeseen place

Just above the picturesque waterfall Skógafoss is a highly eroded footpath which runs along the Skógá river. The path leads to Þórsmörk nature reserve – the 25 km so called Fimmvörðuháls (the Five-cairn neck) hiking trail, often regarded as one of the most scenic trails in the world in international travel magazines. Despite the great popularity of the trail, it is not hikers that cause most of the erosion, but the day travelers who primarily come to view the waterfall.

The site is a textbook case of reactive response to a problem and by fixing a problem at one place you (unintentionally) move the problem to another place deeper in the mountains or change it to a different kind of a problem. “Upland path repair projects can facilitate, even if inadvertently, visitor provision and may open up opportunities to promote increased recreation and tourism use. By making access quicker and easier, a path project may also have major repercussions across the wider mountain area.”¹

Skógafoss has been a tourist site for a long time, attracting foreign visitors

as well as Icelanders. At some point, during the tourism boom in Iceland, the path once solely part of the Fimmvörðuháls hiking trail, attracted visitors who first and foremost came to see the waterfall from below. This resulted in path mitigation and path erosion as the number of guests increased, to more than 1 million in 2017. The response to the problem was to build a stairway to the upper level. By doing so, more and more visitors climbed the 400 steps to see what was up there – the stairway in itself became an attraction. That resulted in the need for a viewpoint and then footpaths as

erosion on the upper level increased. So, the problem moved deeper into the mountains at the same time as it was fixed.

The path repair project at Skógaheiði included 300 m of water management, the structure and surface layer of the footpath and habitat restoration of eroded sites. A qualified contractor with extensive experience of similar work undertook the project. They also consulted with experienced machine workers from Northern Ireland and together they aimed to find a way to control the water.

¹ Upland Path Management – Standards for delivering path projects in Scotland’s mountains. Upland Path Advisory Group. 2nd Edition 2016

Outcome

The interaction between water, gradient and surface layer largely determines how erosion develops. Therefore, water management is one of the greatest challenges of a path repair project site, and Skógaheiði is no exception. To build up margins/edges to keep the surface layer in place, but at the same time making sure water is diverted off the path is also a very important challenge. As well as mitigating habitat loss, for healed land and an intact vegetation coat can carry water without forming a stream causing erosion.

Unfortunately, none of this had been taken into account in previous interventions or repairs on the path. It had simply consisted of dumping gravel on the trail until funding was emptied.

This resulted in the gravel crawling from the footfall and flowing with water down the edges of the canyon and into the Skógá river.

The approach was taken to try and reduce the number of water sources above the path, gather them in fewer channels, and divert them into fewer drains crossing the path. Then to build up the margins of the path with turf but at the same time making water find a way out at the lower edges so that it couldn't form a stream down the path and sweep away the surface layer. Turf was also used for habitat restoration as well as seed cuttings found beside the path. The whole project was based on the local material use and traditional style of handwork.



Key Findings & Learning Points

Knowledge sharing and benchmarking are key factors in upskilling of path workers and successful and sustainable projects of the future. Understanding the nature of a site – the elements at work, and tourist behavior, are vital before the start of a project.

The interaction between water, gradient and surface layer is the same everywhere around the world, but the difference lies in different elements: season changes – long or short summers (growing period), combination of the vegetation and the soil, and available material. So, there is no “one size fits all” solution to a path repair project, but the approach and preparation should be based on the experience and knowledge of others – success as well mistakes, do’s and don’ts.



Knowledge sharing at its best as Icelandic and N. Irish pathwork teams change ideas on water management

FURTHER INFORMATION

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