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Wilderness tourism in Iceland – land use and  
conflicts with power production

Anna Dóra Sæþórsdóttir

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Wilderness tourism in Iceland – land use and conflicts with  
power production

## Candidate's statement

I certify that the research in this thesis entitled '*Wilderness tourism in Iceland – land use and conflicts with power production*' has not been previously submitted for a degree nor has it been submitted as part of requirements to any university or institution other than the University of Oulu. I also certify that the thesis is an original piece of research and that it has been written by me. Any help and assistance that I have received in my research work and the preparation of the thesis itself has been appropriately acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Anna Dóra Sæþórsdóttir

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# Abstract

## Wilderness tourism in Iceland – land use and conflicts with power production

Sæþórsdóttir, Anna Dóra, Department of Geography, University of Oulu, 2011

Keywords: tourism, wilderness, wilderness tourism, nature-based tourism, Highlands, power plants, impact assessment, natural resources, planning, land-use, hydropower, geothermal power, Iceland.

During the last century interest in nature-based and wilderness tourism has increased and attitudes towards wilderness areas changed significantly. Landscapes with mountains and wilderness have become playgrounds for adventure seeking tourists and an important resource for the tourism industry. Visitors travel into the wilderness to experience naturalness, primitiveness and solitude, and it is important to maintain these qualities. This is often difficult when wilderness areas become known as tourist destinations as crowding and environmental damage can reduce these qualities.

Tourism in Iceland has grown rapidly in recent decades and nature and wilderness is the main attraction. But as well as being an important resource for the tourist industry, wilderness and natural areas are also very valuable for hydro-electric and geothermal power production. During the latter half of the last century several glacier-fed rivers in the Highlands have been dammed and hydropower plants built. Now there are plans for further exploitation at many of the major glacial rivers in the Highlands, as well as for more power plants at several of the biggest geothermal areas. However, both power plant development and increased tourism reduces the naturalness of a place and to maintain nature-based and wilderness tourism alongside other developments requires that the development sites be carefully chosen.

The purpose of this thesis is to improve understanding of nature-based and wilderness tourism experience in Iceland and analyse the conflicts that could occur between tourism and the power production industry in natural areas. The thesis introduces a methodological framework to evaluate the effect of proposed power plants on nature-based tourism which was developed in a project called Master plan for geothermal and hydropower development and was carried out for the Icelandic government. Mixed methods were used in the thesis with empirical case studies that combine questionnaire surveys, semi-structured interviews and diaries as well as a system approach, the Delphi method and the Analytic Hierarchy Process.

The results show that in general nature tourists are satisfied with their nature experience in Iceland. However, some warning signals are emerging with respect to visitor satisfaction. For example over 20% of the visitors, in Landmannalaugar, which is the most popular Highland destination and in Skaftafell national park experiencing crowding. Nevertheless, the majority of tourists in the uninhabited Highlands in the centre of Iceland are very satisfied with the primitive conditions there and want less development and service

than guests in the lowlands. They also prefer to travel in as natural an environment as possible. In the minds of tourists, the Highlands are wilderness and even though human influence there has been considerable, most of the visitors still experience the area as unspoilt wilderness. This demonstrates that the visitors in the Highlands see what they want to see and they create and maintain in their minds an image of the Highlands as a wilderness destination. This social construction of the wilderness in Iceland reflects how wilderness is arguably now more a subjective idea than an empirical reality. It is an idea sustained by the tourist industry, as well as by the tourists themselves.

This thesis demonstrates that any power plant developments in the Highlands will have profound implications for the wilderness experience and its social construction with potentially profound implications for the future of nature-based and wilderness tourism in Iceland. The construction of power plants reduces the main qualities of wilderness, primitiveness, naturalness, and remoteness. The effects of power plants reach much further than to the actual construction region of the power plant as improved roads are unavoidable for their construction. Accessibility has a major effects on what kind of tourism develops, what kind of tourists visit the area and to what extent the area is visited. When accessibility increases highly sensitive wilderness areas can become mass tourism destinations. Due to the importance of the Highlands for wilderness tourism, it is desirable to limit power plant constructions there – and limited accessibility is a simple way of preventing crowding and overuse of the resource. The research presented in this thesis on wilderness tourism should, give the tourism industry an important input to the discussions about a long-term sustainable use of land in the Highlands of Iceland.

# Útdráttur

## Ferðamennska á víðernum Íslands – landnýting og hagsmunaaðrekstrar við orkuvinnslu

Sæþórsdóttir, Anna Dóra, Landafræðideild, Háskólinn í Oulu, 2011

Lykilord: ferðamennska, víðerni, náttúruferðamennska, hálendi, orkuver, umhverfismat, náttúruauðlindir, skipulag, landnýting, vatnsorka, jarðvarmaorka, Ísland

Undanfarna áratugi hefur náttúruferðamennska og ferðamennska á víðernum aukist og viðhorf til slíkra svæða breyst mikið. Ferðamenn á víðernum sækjast eftir að upplifa náttúrulegt umhverfi við frumstæðar aðstæður, ásamt því að ferðast einir eða í góðra manna hópi. Víðerni hafa breyst í leikvöll ferðamanna sem þyrstir í ævintýri og eru þar með orðin að mikilvægri auðlind fyrir ferðaþjónustuna sem ýtir á að varðveita eiginleika þeirra. Það getur hins vegar reynst erfitt þegar víðerni verða vinsælir ferðamannastaðir því mannmergd og röskun á umhverfinu geta dregið úr þessum eiginleikum.

Ferðaþjónusta á Íslandi hefur vaxið hratt á undanföllum áratugum og helstu auðlindir hennar eru fjölbreytt náttúra og víðerni. En víðernin og náttúran eru ekki einungis mikilvæg auðlind ferðaþjónustunnar, heldur geta þau nýst til orkuframleiðu. Á seinni hluta síðustu aldar voru nokkrar jökulár á hálendinu virkjaðar og nú eru uppi hugmyndir um að virkja fleiri jökulár auk jarðvarmavirkjanir á helstu jarðhitasvæðum hálendisins. Hvort tveggja, orkuvinnsla og aukin ferðaþjónusta, dregur hins vegar úr náttúrulegum eiginleikum svæðis þannig að ef nýta skal hálendið áfram fyrir náttúruferðamennsku, sem gerir miklar kröfur um lítt raskað umhverfi, þarf að velja framkvæmdasvæði af kostgæfni.

Í þessari ritgerð eru kynntar niðurstöður rannsókna á náttúruferðamennsku og ferðamennsku á hálendi Íslands og greindir þeir árekstrar sem upp geta komið milli ferðamennsku og orkuvinnslu á lítt snortnum náttúrusvæðum. Kynnt er aðferð sem búin var til í Rammaáætlun um vernd og nýtingu náttúrusvæða með áherslu á vatnsafl og jarðhitasvæði og metur áhrif fyrirhugaðra orkuvera á náttúruferðamennsku. Í rannsóknunum er beitt margs konar aðferðum, svo sem spurningalistum, hálf-opnum viðtölum og dagbókarfærslum, auk þess sem notast er við kerfisgreiningu, Delphi-aðferðina og AHP-prepagreiningu.

Niðurstöður rannsóknanna leiða í ljós að ferðamenn eru ánægðir með upplifun sína af náttúru Íslands. Ýmsar blikur eru hins vegar á lofti. Til dæmis upplifa 20% ferðamanna í Landamannalaugum, vinsælasta áfangastað ferðamanna á hálendinu, og í þjóðgarðinum Skaftafelli, að ferðamenn þar séu of margir. Þrátt fyrir það er mikill meirihluti ferðamanna á hálendinu ánægður með þær frumstæðu aðstæður sem þar eru og kys minni uppbyggingu og þjónustu en ferðamenn á láglandinu. Ferðamenn á hálendinu kjósa einnig að ferðast um eins náttúrulegt umhverfi og kostur er. Í hugum ferðamanna er hálendið víðerni og

þrátt fyrir að mannhöndin hafi komið þar víða við upplifa flestir gestanna svæðið sem víðerni. Þetta sýnir að gestir hálendisins sjá það sem þeir vilja sjá og búa til og viðhalda í hugum sér ímyndinni um hálendið sem víðerni. Þessi félagslega smíð um óbyggðir Íslands endurspeglar hvernig víðerni eru að mörgu leyti huglæg nálgun en ekki hlutlægur raunveruleiki. Þetta er hugmynd sem ferðapjónustan viðheldur ásamt ferðamönnum sjálfum.

Ljóst er að orkuver á hálendi Íslands hafa víðtæk áhrif á upplifun ferðamanna og félagslega smíð víðernanna og hugsanlega mikil áhrif á framtíð þeirrar ferðamennsku sem byggir á eiginleikum víðerna. Bygging orkuvera dregur úr náttúrulegum eiginleikum hálendisins og færir það huglægt nær siðmenningunni. Með tilliti til hagsmuna náttúruferðamennsku er æskilegt að ekki séu reist fleiri orkuver á hálendinu, nema þá til að nýta enn betur þau svæði sem virkjað hefur verið á. Áhrif orkuvera eru mun víðfeðmari en sjálft svæðið sem framkvæmdirnar eru á, meðal annars þarf oftast að endurbæta vegi þegar orkuver eru byggð og batnar þá aðgengi að svæðinu. Aðgengi hefur mikil áhrif á hversu margir heimsækja svæði, hvers konar ferðamenn sækja svæði heim og hvers konar ferðamennska þróast þar. Með auknu aðgengi geta viðkvæm svæði fljótt látið á sjá ef þau verða vinsælir áfangastaðir og fjöldaferðamennska hefur innreið sína. Vegna mikilvægis hálendisins fyrir náttúruferðamennsku er æskilegt að takmarka uppbyggingu orkuvera þar – auk þess sem takmarkað aðgengi er einföld leið til að koma í veg fyrir ofnýtingu og of marga ferðamenn. Niðurstöður þessa verkefnis ættu að nýtast ferðapjónustunni sem innlegg í umræðuna um sjálfbæra nýtingu hálendis Íslands.

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## List of publications

This thesis is based on the following five articles:

1. Sæþórsdóttir, A.D., C. M. Hall and J. Saarinen (accepted). Making wilderness: Tourism and the history of the wilderness idea in Iceland. *Polar Geography*.
2. Sæþórsdóttir, A.D. (2010). Planning nature tourism in Iceland based on tourist attitudes. *Tourism Geographies*, 12(1), 25–52.
3. Sæþórsdóttir, A. D. (2010). Tourism struggling as the wilderness is developed. *Scandinavian Journal of Hospitality and Tourism*, 10(3), 334–357.
4. Sæþórsdóttir A.D. and Ólafsson, R. (2010). Nature tourism assessment in the Icelandic Master Plan for geothermal and hydropower development. Part I: rapid evaluation of nature tourism resources. *Journal of Heritage Tourism*, 5(4), 311–332.
5. Sæþórsdóttir, A.D. and Ólafsson, R. (2010). Nature tourism assessment in the Icelandic Master Plan for geothermal and hydropower development. Part II: assessing the impact of proposed power plants on tourism and recreation. *Journal of Heritage Tourism*, 5(4), 333–349.

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