

Preface

The well-being of the soil and what it nurtures is vital for the future, a grim lesson from the past, a lesson we know so well in Iceland. The fate of nature is a subject that has always been close to my heart. I have, therefore, always been ready to encourage, to help, and to challenge our people, who are devoted to the protection of the soil.

During one of my terms of office, a group of people met at the presidential residence, Bessastaðir, to discuss the fate of Icelandic rangelands, – and the rangelands of the world. And thus, the idea was born to organise an international workshop on rangeland desertification. It is therefore with great pleasure that I write a few words at the onset of these proceedings, which is a direct result of the workshop, and this meeting at Bessastaðir.



Ms. Vigdís Finnbogadóttir

Why are there deserts in Iceland? On first impression, Iceland's mid-ocean environment would seem to be an ideal setting for plants to thrive and reproduce, with more than enough rain to water them and secure the soil, and where there is certainly no danger of them withering in the heat.

Maybe, too, the guardian nature spirits that were said to have been here when the first settlers arrived 1100 years ago (and now illustrate our national coat of arms, the dragon, the eagle, the bull, and the giant) could be expected to protect their home from destruction, as they presumably had been doing ever since this island rose from the ocean more than 20 million years ago. But no. The guardian spirits could not overcome the combined destructive powers of man and the hostile environment.

The Icelandic ecology is extremely sensitive, with many natural forces interacting to make its rangelands fragile. The climate is colder than in many other countries, but that does not make deserts, – a cooler climate often helps to preserve the moisture in the soil. Volcanic eruptions are frequent and often cause massive damage, but nature is adapted to heal such wounds to its surface. And the sand from the glaciers, brought down in catastrophic floods when a volcano erupts underneath the ice mass, – yes, this is a destructive force, but certainly not the only one to blame for the crisis that Iceland's vegetation is facing.

Nature is resilient, it can take the blows exerted on it, but only up to a point. And when man, in times of old, not knowing the extreme fragility of the Icelandic rangelands and the volcanic soils, started to cut the shrublands and graze the highlands to make his living from the land, the pressure became too great.

Iceland has deserts. Nearly half of the country is barren wasteland, where nature provides neither food nor shelter from the howling North Atlantic winds. And we know, with certainty, that this has not always been so. Man, in times of hardship, aided by cooler climate and fierce natural forces, has altered the face of the country and its ability to provide for its people.

There is a remarkable passage in the Book of Icelanders written by the historian Ari the Learned, in the early twelfth century, in which he describes the land found by the settlers as being “covered with woods from mountain to shore.” In the Sagas, – our renowned medieval stories written in the vernacular, – there are trees everywhere. People would hide there from their enemies for days, all over the country; some of the woods were too dense even to enter. In the classic work of Icelandic literature, Njal’s saga, Njal himself and the other hero, Gunnar, jointly owned a wood which became the occasion of a fateful feud.

When Gunnar was about to go into outlawry and was riding away, from his farmstead to the shore to sail to Norway, he looked back and suddenly spoke the words that everyone in Iceland knows and admires – “So lovely is the hillside that it has never seemed to me as lovely as now, with its pale fields and mown meadows; and I will ride back home, and not go anywhere at all” – whereupon he turned back to face certain death. Interestingly, many of the Sagas say that such –and – such a place was “covered with woods at that time” which suggests that something had changed radically over the three hundred years between the action of the Sagas and their writing in the thirteenth century. Numerous place-names, where there is now no vegetation cover, indicate that they were once green and flourishing: holt, wooden hill; hagi, hagen, field; and vellir, grassy plains.

Did man realise the damage he caused? It is stated in an ancient law that “it is forbidden to graze the commons so much as to cause their value for grazing to diminish.” Sustainable harvesting, then, is not a new concept. And there is more recent law to the same effect. But somehow, man is slow to learn. Eroded areas and degraded highland deserts are still grazed, even though we, as a prosperous nation, do not need to do this, and even though we have the knowledge to produce enough food, without damaging the land, in areas which are clearly well suited for grazing by livestock.

Today we know better, but we cannot blame our ancestors for the way they used the land. They struggled for 1000 years simply to survive, and food production controlled the number of children the nation could foster. Fortunately, this is no longer the case.



Ms. Vigdís Finnbogadóttir with participants of the Rangeland Desertification Workshop during a field excursion. Photos G. Johannesson.

The story of the degradation of fragile land and the desertification of Iceland, for one thousand years until this century, is in many ways similar to what is happening in many places in the world today. The result is often the tragedy that has struck the dry areas of earth in recent times: famine. With hunger, when nature fails to provide, comes war and social unrest, as we are seeing in parts of Africa even today.

The Icelandic story is not only an account of losses and mishaps. The predecessor to the Icelandic Soil Conservation Service was established as early as 1907, and it is therefore one of the oldest operating soil conservation institutes in the world, if not the oldest. And there have been many successes: encroaching sand has been restrained, we know how to stop and prevent soil erosion, we know how to manage the land. We are continually learning more about how to establish lush vegetation cover, for multiple use by people and animals.

Iceland's achievements may not be large on a global scale, but they are great all the same. And they have a symbolic value as well as a practical one. If we can change our deserts into green land here on the edge of the Arctic Circle, at the border of the habitable world, we can send a message to the rest of the world that this is possible anywhere. And in fact that message would not only be aimed at the rest of the world, but just as much at the Icelanders themselves, who for centuries did not try to grow anything here because they were convinced that it could not be done.

Icelanders have mostly been focusing on their own problems, but they have gained knowledge that can be shared and put to good use elsewhere. Their work towards understanding degradation of Icelandic ecosystems earned them the Nordic Nature and Environmental Award in 1998. And equally, we can certainly learn more from other countries. International co-operation is vital in the world-wide struggle against desertification.

Environmental scientists perhaps shoulder one of the greatest responsibilities of all people today: to study, to educate, to provide means to heal the wounds that mankind has inflicted on the Earth, to harness knowledge in order to make a better world for us all to live in. I have endless admiration for such scientists because, in the final analysis, they seem to be motivated by the same classical love and reverence for the "pale fields and mown meadows" that have become an integral part of the Icelandic national identity.

These proceedings, and the accompanying book "Rangeland Desertification" published by Kluwer Academic Publishers, are the fruit of a meeting that took place in my office, some years ago. I am pleased that it has turned out to be such an excellent scientific contribution. On behalf of all of us involved in preparing the workshop and this publication I thank all of you that contributed to such high quality work.



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