Planning the Wild: In Times of Tourist Invasion

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Abstract
Many travellers seek wilderness areas to experience unspoilt nature, remoteness and solitude. Maintaining these conditions, however, becomes increasingly difficult once a wilderness area becomes a popular tourist destination, making planning a vital task if areas are to be sustained as wilderness. Given that the wilderness concept is hotly debated, it becomes highly challenging to use in practical work, such as planning. Lately, tourism in Iceland has increased at a rapid rate. The country’s uninhabited Central Highlands are characterized by wilderness landscapes which nowadays attract many tourists. With increased tourism and other land uses, this wilderness landscape is rapidly changing. Iceland’s first National Planning Strategy (NPS) for the Central Highlands has recently been approved by the Icelandic parliament. This paper reviews the extent to which the planning strategy takes tourists’ preferences into consideration and to critically discuss the challenges of tourism planning in wilderness areas. The results highlight the paradox existing between wilderness and tourism development, demonstrating the critical importance of planning tourism in the wild. Despite the fact that the emphasis of the NPS is placed on preserving the wilderness areas of the Highlands, increased accessibility and the availability of tourism facilities are also stressed, thus leaving a door open for the anthropocentric perspective. Therefore some highly debatable issues are left unclear, allowing for open interpretations for the various stakeholders of where and how much tourism development is considered appropriate in the Icelandic Central Highlands.

Keywords
Wilderness; Tourism planning; National planning strategy; Iceland; Highlands

Introduction
Wilderness areas are expected to offer opportunities for travellers to experience solitude in an unspoilt natural environment, as well as opportunities to escape the constraints of urban living. These expected conditions on the other hand become difficult to maintain as a wilderness area becomes known as a tourist destination. Increased tourism in the world’s remaining wildernesses has thus made wilderness management an inevitable necessity. If wilderness areas are to be sustained as wilderness, planning and management become even more critical.

The purpose of planning is to select the best path towards a desired future, whereas management includes the implementation of how to reach that best path [1]. Wilderness planning and management are seen by many as complete contradictions-in-terms, as has been well noted by Higham [2]. The point is further stressed by Nash [3], who states that: “By etymology and by tradition, wilderness is uncontrolled”. However, as a concept wilderness is highly disputed, which makes it challenging to work with in land use planning. Different opinions exist on whether wilderness should be viewed according to its etymological origins, as something which is real or objective [3,4], or as a socially constructed idea [5,6]. Accordingly, there is no agreement on one specific meaning and use of the term [7-10].

The multiplicity of meaning connected with the concept of wilderness originates from different spheres of economic interests, geographic differences, differing ethnic identities and scientific studies [7,10,11]. Planning the wild is therefore a complex proposition, especially when it has to be achieved in concord with many different interest groups, such as nature conservationists, tourists, those engaged in various economic activities and with local populations [12]. Furthermore, it has been pointed out [1,11,13] that the interests among the various stakeholders within the tourism industry itself are very diverse. Some aim to offer hotel accommodation in the “wild” while others prefer to sell the “primitive experience”. With increased numbers of visitors in wilderness areas, as well as more diversified activities engaged in by travellers, this is likely to lead to increased conflicts on the topic of wilderness recreational development.

In Iceland, the uninhabited Central Highlands, referred to in this paper as the Highlands, are characterized by wilderness landscapes. In past decades, the demand for the natural resources of the Highlands has increased greatly, particularly for their use in power production and recently also for tourism. Thus, the Highlands have in recent years come increasingly into economic, social and political focus with conflicts over land use [14-20]. The tourism industry is a relatively new stakeholder with regards to land use in the Highlands. Its voice in national land use planning has intensified, coinciding with the increased significance of tourism in Iceland. Over the course of the last 30 years, the annual growth in international tourist arrivals to Iceland has averaged approximately 9%, increasing to 22% annually over the last five years [21]. Likewise, tourism’s share of the country’s total exports has increased from 11% in 1990 to 28% in 2014 [22]. In the past two years, tourism has grown to become Iceland's largest export sector, exceeding even the fisheries which have been the foundation of the Icelandic economy for centuries. The Icelandic Travel Association [23] has repeatedly stressed the lack of a land use plan for tourism, as well as the need for Iceland’s wilderness resources to be assessed and mapped in order to ensure sustainable investments and marketing. Recently Iceland’s first national planning strategy, i.e. the National Planning Strategy 2015-2026 [24] was approved by the Icelandic parliament [25]. In this first Icelandic national planning strategy the main emphasis is placed on three themes, one of which is the Highlands [24]. About 22% of international tourists who come to Iceland during the summer visit the Highlands [26]. Hence, when planning land use in the Highlands, it is important to consider tourists’ preferences, while at the same time being mindful of the danger to the areas presented by overuse as well as potential land degradation caused by tourism.
This paper aims to review to what extent the National Planning Strategy (NPS) of the Icelandic Central Highlands takes tourists’ preferences into account and to critically discuss the challenges of tourism planning in wilderness areas.

**Challenges in Wilderness Planning**

**Wilderness concept dispute**

The definition of the concept of wilderness presents a major challenge in the identification of wilderness areas [27]. According to Eidsvik the concept received a global meaning spurred on by the increased dominance of western culture and its approach to governance of the natural environment [28]. The original definition refers to tangible qualities of nature and was put forward in the Wilderness Act over fifty years ago, significantly defined by Nash as “uncultivated and otherwise undeveloped land” [3,29]. The absence of men and the presence of wild animals is assumed. From this standpoint, wilderness is placed on the far end of the rural-urban spectrum reflecting the most natural of all environments. Remoteess from anthropogenic constructions is thus considered to be a prime indicator of wilderness quality. As such, wilderness has been defined in legal contexts as areas possessing specific qualities outlined in numerous acts and regulations worldwide [4]. Tuau [30], on the other hand, has pointed out that wilderness “is as much a state of the mind as a description of nature” and can therefore not be objectively defined. This sociological approach to wilderness is supported by numerous researchers [10,31] who assert that the concept of wilderness is a cultural construction and therefore not a static quality, but changes according to shifting cultural attitudes and understandings [5,6].

Remoteness and primitiveness have been identified by many [32,33] as the main indicators of wilderness quality. Increased tourism in wilderness areas creates pressure to increase accessibility and infrastructure which thereby reduces wilderness quality. In order to minimize the impact of tourism, it has been pointed out [34,35] that policies need to be implemented through planning and management schemes wherein efforts are taken to balance the competing and conflicting demands of nature conservation and tourism. With regards to this, many researchers [27,35] furthermore point out that although the preservation of wilderness from modification and commercial development was one of the main motivations when the first national parks were established, differing views still exist as to whether wilderness management should be anthropocentric or non-anthropocentric. Until the 1960s the planning of wilderness areas in the United States of America was predominantly anthropocentric [3,32]. Towards the end of the 1960s, the growing popularity of wilderness areas increasingly led to diminishing qualities of wilderness, ushering in a gradual change in wilderness management towards more non-anthropocentric approaches [3]. The non-anthropocentric approach holds that all forms of economic development should be prohibited and that human activities should be restricted to non-motorized recreation [36]. There is still an ongoing debate between those who favour wilderness protection and those who prefer increased development for tourism.

**Wilderness as a resource for tourism**

As wilderness is a potential resource for many and diverse stakeholders, tensions can easily arise between the various parties. In the Icelandic Central Highlands tensions are particularly seen between the interests of power production, tourism and conservation management [14-20]. Conflicts can also arise between various stakeholders within the domain of tourism itself [1,37]. As tourism increases in a wilderness area, maintaining its wilderness condition becomes challenging [3,38,39]. Wilderness areas are delicate to growing numbers of visitors which lead to the decline of wilderness quality and in turn to a change in tourist types from explorers in the exploration stage to mass tourism in the stagnation stage [37,40]. Therefore, in order to encourage the sustainable use of a wilderness area as a tourist destination, planning and appropriate management seem fundamental.

**Wilderness Tourism in Iceland**

**The Icelandic Highlands as a tourist destination**

The Icelandic Highlands cover approximately 40% of the country (Figure 1). Due to Iceland’s location in the middle of the North Atlantic and its position on the Atlantic Ocean Ridge, the landscape is very dynamic, being shaped by both internal and external processes and the interplay of the two [41]. These characteristics are exaggerated in the Highlands which encompass wide sand and gravel deserts, large lava fields, ice caps, geothermal areas and a variety of mountain types. Meltwater from the ice caps creates vigorous glacial rivers which have made the Highlands harsh and, until recently, inaccessible.

From the earliest records of Norse settlement in Iceland in 874 AD [42] and until the beginning of the 20th century, the Highlands were more or less a no man’s-land. The sparse population of Iceland has since the earliest settlement been located mainly along the coastline, leaving the interior Highlands uninhabited and its utilisation limited mostly to summer pastures for sheep [8,19,43]. For these reasons the legal status and ownership of the Highlands remained unclear. From the middle of the 20th century onwards, the economic significance of the Highlands has grown with the construction of numerous hydroelectric power stations and increased tourism [8,19].

Before the 20th Century, the only available means of transport...
through the Highlands were by foot or by horse. Hence, the lack of accessibility kept this large area relatively wild until recent years. After World War II, all-wheel-drive army trucks from the US were imported to Iceland by the American military that operated a military base in Iceland at the time. The road-less Highlands proved little obstacle to these trucks [44], and subsequently their tracks opened up the area to other vehicles. In the latter half of the 20th Century, several hydro-electric plants were built in the southern part of the Highlands [45], greatly improving access to these areas. The first mountain hut in the Highlands was built in the 1930s by the Icelandic Travel Association. Later on, especially in the 1980s, mountain huts were built by the hundreds, most of which were unlicensed [46].

The Icelandic concept óbyggt víðerni (ie. uninhabited wilderness) is defined in the Icelandic Nature Conservation Act (no. 60/2013) [47] as an area of land:

That is in general about 25 km2 in size, and situated at a distance of at least 5 km from human structures and other infrastructure, such as power lines, power plants, dams, reservoirs, and maintained roads.

This definition largely follows the definition used in the previous Nature Conservation Act (no. 44/1999) [48]. Designated wilderness areas currently make up approximately 33% of Iceland’s surface area [8], largely located within the Highlands (cf. Figure 1). Since the 1930s, the country’s wilderness areas have been reduced by nearly 70%, due to a large extent to the construction of roads and power plants [49-51]. In fact, according to the Icelandic Ministry for the Environment [52] tourist activities and power plant developments are now seen as major threats to the wilderness in Iceland. Numerous studies by Sæþórsdóttir [39,53] show that visitors in the Icelandic Central Highlands favour simplicity and the absence of anthropogenic constructions. Her results show that the far majority do not think that hotels and restaurants are appropriate in the Highlands. That is in line with results from other studies [54,55].

History of planning in the Icelandic central Highlands

Iceland has two administrative levels of government; state (central government) and municipal (local authorities). It has long been a subject of ongoing debate whether the planning authority of the Highlands should be located with the central government or with local authorities [46]. One key reason for the longevity of this debate may be the fact that at the Icelandic parliament, Alþingi, municipalities are afforded more power than the state. Because of the uneven geographical distribution of the country’s population, different weights are allocated to the votes from each representative at the parliament, depending on the location of the municipality he/she represents, in effect giving individual votes from the inhabitants of rural areas more weight than votes from the capital area.

In 1993 it was agreed to change Iceland’s Planning Act (no. 19/1964) [56] by adding a new clause (no. 73/1993) which allowed the so-called regional committees (I. heraðsnefndir) to form a joint committee with the aim of preparing a plan for the Highlands, i.e. the Planning Committee of the regional plan for the Central Highlands (I. Samvinnunefnd miðhálendisins). Subsequently, in 1994 a planning committee was appointed, consisting of more than 20 representatives from 13 different municipalities adjoining the Central Highlands as well as the Minister of Environment who appointed the chairman [46].

Until 1998 physical planning in Iceland was only required in the populated lowlands, leaving no enforceable regulations for the Highlands. In the years 1997 and 1998 two laws were passed which caused a major change in Iceland’s physical land use planning (Figure 2). These were the Planning Act (no. 73/1997) [57] which gave the political power of land use planning to the municipalities, and the Municipality Act (no. 45/1998) [58] which divided the whole of the country into separate municipalities, finally placing the Highlands under the legal constraints of physical planning and licensing for the first time. As a consequence of this division, the Highlands did not come to constitute one administrative unit with regards to physical planning but were divided between numerous adjoining municipalities.

In 1999 the Planning Committee completed a regional plan for the Highlands, i.e. the Central Highlands Regional Plan. A regional plan, according to the Icelandic Planning Act (no. 73/1997) [57], is a strategy for collaboration between two or more municipalities regarding regional development and other land use issues. The boundaries of the Highlands have historically been somewhat blurred, but with this new Central Highlands Regional Plan they became a politically defined unit, marked by a line drawn between commonly owned pasture-lands in the Highlands and privately owned areas in the lowlands. The stated goal of the Central Highlands Regional Plan was to “ensure sensible use of natural resources and qualities of land, with public interest and nature conservation as a major guidelines” [46] with no further clarification given of the word ‘sensible’. The main categories of land use addressed in the plan are as follows: Natural condition, natural heritage, cultural heritage, energy production and tourism, with a major emphasis on protecting large units of natural wilderness with no anthropogenic structures. In 2011 a new Planning Act (no. 123/2010) [59] came into effect. With this act a new level of planning strategy was adopted in Iceland, specifically on a national level, i.e. the National Planning Strategy 2015-2026 (NPS), (I. Landsskipulagsstefna; cf. Figure 2). In this first Icelandic NPS the main emphasis is placed on three themes, one of these being the Highlands.

National Planning Strategy for the Icelandic central Highlands

The Icelandic National Planning Agency, the state authority responsible for the administration and implementation of the Planning Act, had the role of developing a draft of the strategy for the minister for the environment and natural resources [24]. On the basis of this draft, the minister created a Parliamentary Proposal on National Planning Strategy (NPS) which was approved by the Icelandic parliament in the Spring of 2016 [25]. Following this approval, the NPS will take over from the Central Highlands Regional Plan, which is to be abolished.

The policy set forward in the NPS mostly follows the Central Highlands Regional Plan. Integrated into this new strategy are the government policies implemented after the approval of the Central Highlands Regional Plan in 1999 regarding nature conservation, sustainable development, transportation and utilisation of energy resources [24]. Still, clear policies regarding tourism land use in the Highlands are lacking.

The overall goal set forward in the NPS is to: “Protect the nature and landscape of the Highlands due to its nature conservation value and importance for outdoor recreation. The uniqueness of the Highlands must be taken into consideration when planning any infrastructure in the Highlands” [25]. Additional emphasis is placed on the preservation of the country’s remaining wilderness: “The characteristics and quality of nature in the Highlands should be preserved and an emphasis placed on the protection of wilderness, landscape units, important biotopes and vegetation, as well
as valuable cultural heritage” [25]. The NPS employs the legal definition of wilderness, but simultaneously points out the necessity of establishing a frame of reference for estimating the extent of wilderness areas. The NPS claims that “larger constructions should be diverted towards areas that will not decrease the wilderness in the Central Highlands” and furthermore that “… main emphasis should be on development of tourism infrastructure at the edge of the Highlands and at certain zones adjoined to the main roads crossing the Highlands”. Nonetheless, the NPS also declares that “it should be ensured that individuals travelling through the Highlands have access to proper infrastructures and services” [25]. The contradiction in these goals reflects the complexity of tourism development in wilderness areas.

The NPS divides the Highlands’ proposed tourism service centres into four categories based on their service level. The highest level category is proposed to be offered at four locations, the second highest at nine locations and the third highest at 33 locations. The number and location of the lowest service level is not specified. Hotels are to be allowed at the highest and second highest service levels, under the condition that “…such accommodation is only a part of the location supply and complies with the demands of a wilderness experience” [25]. With regards to transportation and accessibility, the NPS declares that: “Maintenance and a further development of the transportation network in the Highlands should aim at good access into the Highlands” [25]. This is noteworthy as access is one of the most critical tools to maintain wilderness quality.

Regarding utilisation of the energy resources in the Highlands the NPS states that “The energy resources in the Highlands will be utilized with sustainability and environmental conservation as a major goal, especially when considering the conservation of wilderness” [25]. Electrical transmission lines connect power plants with the grid system. In the Central Highlands Regional plan of 1999 one major transmission line was proposed to stretch along the travel route Sprengisandur, which is one of two main roads crossing the Highlands between the North and South of the island. It is noteworthy that this proposed major transmission line is not mentioned in the NPS, and that the emphasis is placed instead on the need to assess the cumulative impact of the various locations of potential power plants and transmission lines on the Highlands’ nature and wilderness [25].

Results and Discussion

The role of tourism in the National Planning Strategy of the Icelandic central highlands

Over the past few years, tourism has grown to become Iceland’s largest economical sector in terms of foreign currency exports [60]. Wilderness has been one of Iceland’s major tourist attractions [26]. This observation is supported by Sæþórsdóttir [39,53] which reveals that wilderness plays an important role in attracting tourism to the Icelandic Central Highlands. Hence, despite the increase of human influence within the Highlands over the past decades, the subjective, romantic conception of wilderness still appeals to its visitors. The emphasis in the NPS, Iceland’s first planning strategy on a national level, is in line with this, strongly supporting the preservation of wilderness. However, wilderness preservation is in conflict with other land uses of the Highlands’ natural resources, such as power production and mass tourism investments which in short term perspectives are likely to generate more economical profit. These conflicts become mutually exclusive options at different stages in the long-term planning process of the Highlands. An example of an unresolved issue which is likely to have a great impact on Icelandic wilderness resources, and subsequently on wilderness tourism, is the transmission line stretching across the Highlands which is proposed in the Central Highlands Regional Plan [46], but notably not mentioned in the NPS [25]. The present study shows that most tourists do not consider power lines to be acceptable in wilderness areas.

There are further obvious complexities connected with decisions on the types as well as the quantity of tourism services and infrastructural expansion that is appropriate within the Highlands. This is of major importance, as allowing the construction of hotels will mark a critical change in the Icelandic policy which has until now not permitted hotels in the Highlands. Furthermore, developing “good facilities” for travellers while at the same time endeavouring “not to spoil their wilderness experience”, as stated in the NPS [25] is clearly paradoxical. According to the results of this study, a large majority of tourists in the Highlands do not consider hotels to be acceptable in wilderness areas, indeed, they consider hotels to be less acceptable than power plants.

Moisey and McCool [61] point out that various stakeholder groups have different visions of how to utilize the destination resources upon which tourism relies. It can therefore be very challenging to build a consensus. Different interests among various stakeholders within the...
tourism industry is a well-known issue, since some parties service purists who are looking for a “primitive experience” while others service urbanists who prefer hotel accommodation in the “wild” [12,13]. If facilities are enhanced this will inevitably increase the number of visitors. Therefore it is of vital importance to have a holistic overview of the desired tourist type at each destination. Such a holistic picture is still lacking in Iceland.

The emphasis placed in the NPS on increased accessibility, as well as on more and better facilities for tourists, reflects an anthropocentric perspective and is not conducive to the preservation of the area’s essential wilderness attributes, i.e. naturalness, remoteness and primitiveness. This is supported by numerous researchers [32,33]. The fact that the NPS does not engage with some of the most controversial issues in the Highlands weakens the potential for strategic planning and is likely to provide possibilities for open interpretations of where and how much tourism development should be allowed in the Highlands. Many researchers [12,13,61] further demonstrate that this is the typical outcome when it comes to strategic planning reflecting the complexity of too many stakeholder interests, eventually causing the final output to have little or no bite. In Iceland, the reduced’ bite of the NPS is also in some part a result of the debate concerning the location of the planning authorities of the Central Highlands, i.e. within the central government, or within the local municipalities. The role of the state is to pursue benefits to the whole society, whereas municipalities emphasize local interests and local economic benefits. Tourists, logically, are usually not in a position to participate in public hearings or discussions in society and are not automatically regarded as stakeholders in the planning process. It has, however, been pointed out [62,63] that their opinions and preferences do matter and can be a valuable aid in the sustainable development of a tourist destination.

Tourism planning and wilderness

As the wilderness concept is highly disputed, using the concept in practical work such as land use planning and environmental resource management is highly challenging [27]. It has long been known [64] that the definition of concepts and their accompanying criteria needs to be clear as this forms the basis for common understanding and communication and makes it possible to preserve a point of reference. For this reason, the emphasis within the Icelandic NPS on the preservation of wilderness side by side with an emphasis on increased use of its resources makes the planning strategy somewhat blurry, setting the stage for ongoing debates within Icelandic society, regarding wilderness and the development of the Highlands.

Despite the fact that the meaning of the term wilderness is understood differently by individuals and various researchers, tourists’ enjoyment of wild landscapes, pristine and powerful nature and the spiritual inspiration they experience there still emerges as a common thread in studies focusing on the wilderness experience [15,27,53]. Coinciding with increased tourism in the world’s wilderness areas, it becomes increasingly difficult to preserve the expectations of wilderness. Therefore, planning is now seen as a necessary component in order to sustain wilderness areas [1,27,34]. This review supports this conclusion, highlighting the fact that with increased numbers of tourists the demand for tourism infrastructure gradually increases, resulting in even more tourists visiting the site and subsequently changing the composition of the types of tourist who visit the area and ultimately affecting the wilderness experience [39,49]. This demonstrates the importance of tourism planning in wilderness areas.

Iceland is very dependent on the utilization of natural resources for its economic welfare. It therefore presents a major challenge for the nation to use its natural resources in a sustainable way. The rapid increase in international tourist arrivals to Iceland raises concerns about whether Iceland will manage to utilize its wilderness for tourism in a sustainable way and at the same time preserve the quality of its wilderness. From the social constructionist viewpoint of wilderness [5,6,10,31], evaluating wilderness as more of an idea than an ‘objective’ condition, the development of tourism in wilderness areas should be of no great concern, as a new market group will substitute those whose threshold is surpassed. The new market group will accept a more humanized landscape and more visitors, and still experience wilderness. It has been shown [39] that this development is already taking place in one of the most popular tourist sites within the Icelandic Central Highlands, namely Landmannalaugar. In just a decade the type of travellers who arrive in Landmannalaugar has shifted; purists gradually being replaced by neutralists and urbanists, who have softer attitudes towards wilderness qualities. However, the majority of the current market groups still experience wilderness as an important aspect of the area. In this regards Butler [65] points out that:

Adopting an approach which relies on identifying what users regard as acceptable change, and basing usage levels on user norms and expectations can only result in increasing levels of use and development as those users concerned by development and increasing numbers will go elsewhere and will be replaced by those with higher use threshold levels.

Following this argument, many destinations would consequently surpass their appropriate usage level and would be incapable of maintaining themselves at current quality levels and thus be unsustainable [66,67]. Wilderness should therefore be considered a finite tourism resource which would eventually be overrun, according to Butler’s (1980) traditional TALC model, if one were to rely solely on tourist opinions for their development.

Tourism and nature conservation can only go hand in hand under careful planning and management. This is especially important for the Icelandic Central Highlands given that tourism is now Iceland’s largest export sector and that the wilderness of the Highlands is one of the most important factors in attracting tourism. However, using wilderness as a tourism product in a sustainable way is demanding and requires great caution, especially where the growth of tourism is as fast as it currently is in Iceland. Currently, wilderness is seen as a playground for tourists; however this playground is in all respects an extremely sensitive resource. This underlines the critical importance of planning tourism in the wild.

Concluding Remarks

Coinciding with increased tourism in the world’s wilderness areas, planning tourism in the wild seems to be inevitable. Planning for the wild will, however, remain a complicated and challenging task. In Iceland, wilderness is a major attraction for the majority of tourists visiting the country’s Central Highlands and is thus a valuable resource for the fast-growing tourism industry in Iceland. Wilderness preservation for the sake of future tourism in the Highlands nevertheless carries some conflict within itself as well as conflicts with other potential land uses of the Highlands’ natural resources. The following conclusions can be drawn from the present study:

- The first attempt at planning for the uninhabited interior Highlands of Iceland, largely characterised by vast wilderness, was introduced in 1999, under the heading of the Central...
Highlands Regional Plan. Recently, Iceland’s first planning strategy on a national scale (NPS) was approved. The paradox of wilderness tourism planning is apparent in the new NPS, reflecting the complexity of too many stakeholders as some highly controversial issues remain unclear, providing open interpretations on where and how much tourism development should be allowed in the Highlands.

- The demand for increased tourism infrastructure in response to the increased number of tourists will gradually change wilderness tourism towards mass tourism, if not planned and managed.
- A holistic overview of desired tourist types in each of the Icelandic Central Highland destinations is still lacking but is of critical importance for the sustainable development of the wilderness.
- Wilderness sustainability in times of worldwide tourist invasion is critical, and will not be met without planning in order to find the best path to a sustainable future.

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References

42. Old Icelandic literature (1968) [Íslenzk fornrit 1: Íslandsetabók; Landnámabók]. Reykjavík: Hó islenska fornritafélag.
47. Icelandic Nature Conservation Act. (no. 60/2013).
56. Planning Act (no. 19/1964).

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