# Act on Protective Measures Against Avalanches and Landslides

## No. 49, 23 May 1997

## Article 1

Efforts shall be made to prevent damage to property and persons resulting from avalanches and landslides as provided for in this Act.

The general term (snow- and land)slides shall be used here to refer to both avalanches and landslides.

## Article 2

The Minister for the Environment shall be ultimately responsible for the issues covered by this Act, unless they are specifically entrusted to other Ministers.

#### Article 3

The Icelandic Meteorological Office shall collect and process data on avalanches and avalanche danger. It shall carry out measurements of snowpack properties and research on such with special regard for avalanche danger and issue warnings of such dangers, cf. Article  $6^{1}$ .

The Icelandic Institute of Natural History shall collect data on landslides and dangers resulting from them in co-operation with the Icelandic Meteorological Office.

The Icelandic Meteorological Office shall employ special snow observers to observe and monitor geographical and meteorological conditions with regard to the danger of snow- and landslides in those communities where such monitoring is necessary in accordance with a decision by the Minister.

The Icelandic Meteorological Office shall consult with the local authority in question on the hiring of a snow observer. The local authority shall provide him/her with the necessary work facilities and general equipment, as well as looking after maintenance of machinery and equipment, without charge. The Minister may set detailed rules<sup>2)</sup> concerning these obligations of the local authority.

The snow observers' salaries shall be paid by the National Treasury.

## Article 4

[In communities where snow- or landslides have fallen on or near settled areas, or where there is considered to be a danger of such, the local authorities shall have the risk of snow- and landslides assessed.]<sup>1)</sup> Such hazard zoning shall cover principally urban areas and areas where urban settlement is planned. Furthermore, such assessment must be carried out in organised skiing areas. Hazard zoning must involve assessment of the risk to human life posed by snow- and landslides in built-up areas or areas for planned construction. In assessing risk, the effect of defence structures which have been constructe, shall be taken into account.

[A request from a local authority for hazard zoning is to be received by the Minister for the Environment, who will appoint a four-person committee to direct the preparation of a hazard zoning in the community in question, the Hazard Zoning Committee. Two members shall be appointed in accordance with nominations by the local authority, while the Minister shall appoint two members to the Committee without nomination, one of whom shall serve as Chairman and cast the deciding vote in case of a tie vote. The Hazard Zoning Committee shall decide in consultation with the local authority what areas hazard zoning shall cover. The Hazard Zoning Committee shall present proposals for the final hazard zoning in consultation with the local authority once they have been received from the Icelandic Meteorological Office and shall finalise the hazard zoning for attestation by the Minister. The Minister shall lay down rules concerning the composition and work of the Hazard Zoning Committee.<sup>1</sup>

[At the request of the Hazard Zoning Committee, the Icelandic Meteorological Office shall carry out hazard zoning on the basis of expert knowledge of the nature and consequences of snow- and landslides, in accordance with a contract for such.]<sup>1)</sup>

The hazard zoning shall take effect upon receiving attestation by the Minister. Full consideration shall be had for the hazard zoning in all planning and it must be submitted as an accompanying document to a planning proposal.

Rules<sup>2)</sup> on the preparation and use of hazard zoning, classification of risk areas and their utilisation shall be laid down by the Minister.

<sup>1)</sup><u>Act 71/2000, Article 1.</u> <sup>2)</sup>Reg. 505/2000.

## Article 5

The National Civil Defence of Iceland shall, under the direction of the Minister of Justice, carry out the preparation of emergency plans, and see to the instruction and public education concerning the danger of snow- and landslides in cooperation with the Icelandic Meteorological Office.

The National Civil Defence of Iceland shall organise and carry out rescue and relief operations as a result of danger or damage from snow- and landslides as provided for in the Act on Civil Defence and Articles 6 and 7 of this Act.

## Article 6

When the Icelandic Meteorological Office, in consultation with the [local] Chief of Police and Civil Defence Committee, issues a warning of localised avalanche danger and declares a state of alert, people shall evacuate or be evacuated from all buildings in the area or areas listed in the warning from the Meteorological Office in accordance with the current emergency plan.<sup>1)</sup> These areas shall be delineated on special maps which the Icelandic Meteorological Office shall have drafted on the basis of expert knowledge of the nature and consequences of avalanches. The maps shall be attested by the Minister for the Environment and presented to the National Civil Defence of Iceland and the Civil Defence Committees concerned.

The Chief of Police and Civil Defence Committee shall see to the evacuation of buildings as provided for in the first paragraph and may use force for this purpose if necessary. While the state of alert lasts, all traffic shall be prohibited in the area which has been evacuated, except with the express permission of the Chief of Police.

The Icelandic Meteorological Office shall decide when the state of alert shall be terminated in consultation with the Chief of Police and Civil Defence Committee.

Maps as provided for in the first paragraph shall be reviewed in the light of the best knowledge of the nature and consequences of avalanches and changed conditions, such as in cases where permanent defence structures have been constructed.

<sup>1)</sup>Reg.533/1995.

The Chief of Police may at any time decide, in consultation with the Civil Defence Committee, to evacuate buildings due to risk of snow- or landslides, even though no state of alert has been declared as provided for in Article 6. In addition, orders may be given for the evacuation of buildings in an area or areas larger than those proposed on maps as drawn up by the Icelandic Meteorological Office, including areas not covered by Article 6. Force may be used to evacuate such buildings if necessary.

In addition, the Chief of Police may, in consultation with the Civil Defence Committee, prohibit traffic on specific streets and roads due to danger of snow- or landslides outside of areas which have been evacuated as provided for in Article 6. For the same purpose, people may be prohibited access to ski areas and other outdoor recreation areas.

#### Article 8

Each time personal injury results from a snow- or landslide in a settled area, an ad hoc Committee shall be appointed to investigate the causes of the snow- or landslide and its consequences. Furthermore, such a Committee may be appointed in other instances if personal injury or substantial damage to property has resulted from a snow- or landslide.

The Prime Minister shall in each instance appoint three experts to form the Committee. The Chairman of the Committee, who must fulfil the requirements to be appointed as district court judge, shall be appointed without nomination and other members of the Committee pursuant to nominations by the Minister of Justice and the Minister for the Environment.

The Committee's investigation shall be aimed exclusively at reducing the risk posed by snow- and landslides. The Committee shall be autonomous and independent of public authorities and other investigative parties. It may demand the submission of documents and other data concerning a snow- or landslide and question anyone who may be able to provide information useful to the investigation.

The Prime Minister may set detailed rules on the Committee's work.

Any investigation of suspected criminal action in connection with a snow- or landslide shall be carried out in accordance with the Criminal Proceedings Act; such investigation shall be independent of investigation as provided for under this Article.

#### Article 9

To carry out the tasks referred to in the second paragraph, the Minister shall appoint a three-person committee, the Snow- and Landslide Committee, for a fouryear term at a time. The Committee Chairman shall be appointed without nomination, while other Committee members shall be appointed in accordance with nominations from the Minister of Social Affairs and the National Association of Local Authorities in Iceland.

The tasks of the Snow- and Landslide Committee shall be:

1. to discuss and reach a decision on proposals by local authorities as provided for in Articles 10 and 11;

2. to allocate funding from the Snow- and Landslide Fund, as provided for in Article 13.

Decisions by the Snow- and Landslide Committee as referred to in the second paragraph shall only take effect upon their attestation by the Minister. The Minister may set detailed rules on the Committee's work.

#### Article 10

A local authority shall make a proposal to the Snow- and Landslide Committee for defence structures for hazard zones upon which structures have already been raised in accordance with a master plan. After approved defence structures have been constructed a competent party may assess whether further building should be authorised and if so, under what conditions.

The local authority shall carry out construction of defence structures in accordance with a decision by the Snow- and Landslide Committee, as referred to in the second and third paragraphs of Article 9. The construction shall be carried out through a tender procedure wherever practicable.

Local authorities shall be responsible for maintenance of defence structures.

## Article 11

If it is considered more cost-effective in ensuring human safety with regard to snow- and landslides, a local authority may propose to the Snow- and Landslide Committee that buildings be purchased or relocated instead of building defence structures or applying other protective measures. A local authority may, for the same purpose, propose the purchase of lots or other real estate in addition to buildings. The local authority shall see to the purchasing or relocating of property in accordance with the decision of the Snow- and Landslide Committee as referred to in the second and third paragraphs of Article 9.

The local authority becomes the owner of property purchased pursuant to this Article; its utilisation shall be subject to the Minister's approval.

Should no agreement be reached on the purchase of a building, a local authority may expropriate the property. Expropriation shall be in accordance with the Expropriation Act.

## Article 12

A special national fund, the Snow- and Landslide Fund, shall be administered by the Ministry for the Environment.

The Fund's income shall be from:

1. an annual fee levied on all properties insured against fire, in the amount of 0.3‰ of the insured value. This fee shall be collected together with the premium for Icelandic Natural Catastrophe Insurance, in accordance with the Act on Natural Catastrophe Insurance; the fee shall be enforceable by distress and by a lien on the ensured property. Levying of this fee shall not result in raising the collection remuneration paid to insurance societies pursuant to the Act on Natural Catastrophe Insurance;

2. an annual budget allocation in accordance with a plan for construction submitted under preparation of each budget;

3. interest income, cf. Article 13;

4. other income.

Loans for the Fund's activities, guaranteed by the National Treasury, shall be subject to the approval of the Minister of Finance.

#### Article 13

Assets of the Snow- and Landslide Fund, cf. Article 12, must be used to pay the cost of operating the Fund and of the Snow- and Landslide Committee, as well as costs of protection against snow- and landslides, in accordance with the following:

1. [all cost of preparing hazard zoning, including costs of the activities of Hazard Zoning Committees, as referred to in Article 4, shall be paid including the cost of preparing maps as referred to in Article 6;]<sup>1)</sup>

2. all cost of purchasing and installing equipment and facilities expressly acquired for research and monitoring of risk of snow- and landslides shall be paid. The same shall apply to cost of research aimed at improving hazard zoning and design of defence structures;

3. up to 90% of the cost of preparation and construction of defence structures, as provided for in the first and second paragraphs of Article 10 may be paid;

4. up to 60% of the cost of maintenance of defence structures, as provided for in the third paragraph of Article 10 may be paid;

5. up to 90% of the cost of purchasing or expropriating buildings, lots or other real estate, as well as of the cost of relocating buildings, as provided for in the first, second and fourth paragraphs of Article 11, as specified in Article 14, may be paid.

Local authorities may be granted loans from the Snow- and Landslide Fund to cover their share of costs pursuant to Points 3 and 5 of the first paragraph, provided they are financially incapable of supplying their share of the cost. The loan shall be made for a period of 15 years on terms comparable to those available to the Snow- and Landslide Fund. Repayment of the loan, including interest and inflation increases, shall never amount to a higher annual sum than 1% of the loan principal, together with interest and inflation increases, plus 0.15‰ of the assessment value for real estate taxes of residential property in the community and 50% of the net income of the local authority from the sale or rental of property which it has acquired pursuant to the third paragraph of Article 11. Any amount outstanding on the loan upon the expiry of the loan period shall be written off.

<sup>1)</sup><u>Act 71/2000, Article 2.</u>

## Article 14

If a decision is reached to allow the Snow- and Landslide Fund to participate in the cost of purchasing or expropriating property or relocating buildings, as provided for in Point 5 of Article 13, maximum payment from the Fund shall be based on the cash market value of comparable real estate in the community outside the hazard zone. In determining this, no regard shall be had for increase in market value which may be traced to a decision on the purchase of real estate in a hazard zone.

Payment from the Fund may be based on the extrapolated purchase price of real estate purchased in recent years, together with an assessment of the cost to the present owner of its improvement, if it is evident that the location of the real estate in a hazard zone or its vicinity has resulted in lowering its market price.

The Fund shall not pay for purchase of real estate which can be relocated, unless the total cost of relocating is higher than the reference value pursuant to the first and second paragraphs.

## Article 15

Import duties and VAT shall be waived or refunded on materials and equipment imported to Iceland or manufactured in the country for protection against snow- or landslides.

## Article 16

The Minister for the Environment shall in a Regulation<sup>1)</sup> lay down detailed provisions for the implementation of this Act.

<sup>1)</sup>Reg. 637/1997.

#### Article 17

This Act shall enter into force at once. ...

If a hazard zoning has been attested prior to 1 January 1996, it shall automatically be invalidated upon the entry into force of this Act.

#### **Temporary provisions**

## I.

The local authority shall submit a zoning proposal for new building sites and new construction in communities subject to danger of avalanches. The zoning proposal must be prepared in accordance with rules set by the Minister for the Environment. The Minister shall receive proposals from the State Planning Agency, the Icelandic Meteorological Office and the National Association of Local Authorities in Iceland and provisional hazard zoning must be available. These rules shall be used as a basis until the hazard zoning has been attested for the community in question.

II. ...