SLOVAK REPUBLIC

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Slovak Republic, indoor measurements

Web address of related project:

- *NA*

Selected References:

- Vičanová, M., Ďurčík, M., Nikodemová, D. (1999). Radon exposure in Slovak dwellings and workplaces. In: *IRPA regional congress on Radiation protection in Central Europe*. Budapest 1999
- Ministry of the Environment of Slovak Republic (2003). *State of the Environment.* Report of the Slovak Republic 2003, pp168-169. (*in Slovak*).
- Vičanová, M. (2003). Utilisation of solid state nuclear track detectors at the solution radon problems. Ph.D. Thesis, Faculty of Mathematics, Physics and Informatics, Comenius University of Bratislava, 82 p. (*in Slovak*).
- Vičanová, M., Nikodemová, D., Pinter, I. (2003). Indoor Radon Risk Assessment of Slovak Population. In: *Proceedings of the V. Banskoštiavnické dni*, Banská Štiavnica, 2003, pp.124-131. ISBN 80-88682-59-2. (*in Slovak*).

Campaign

Survey period	*Dwellings investigated*	*Measurements / dwelling*
1992-2003	4 019	2

Sampling strategy:

The dwellings investigated have been chosen randomly on the whole territory. Family dwellings were preferred to flats.

Measurement technique

Detector type	*Measurements time (days)*	*Season*	*Measurement location*
Track-etch detectors (CR-39)	183	½ heating and ½ non-heating season	Two different rooms

	Measurement time (units in days)			
Type	*Mean*	*Std. Dev.*	*Min.*	*Max.*
Track-etch detector (CR-39)	177	36	90	240

Indoor radon levels

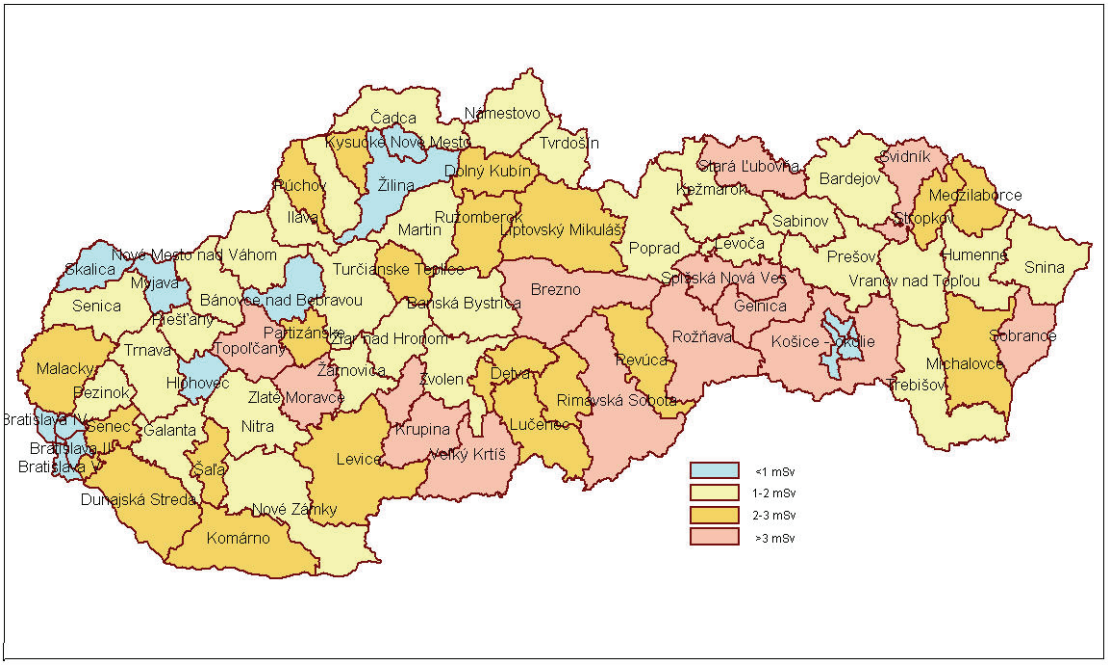
	Measurements statistics (units in Bq/m³)				
Measurements	*Mean*	*Geo. Mean*	*Std. Dev.*	*Min.*	*Max.*
8 270	172	83	119	10	3 750

Estimated mean annual radon levels in Slovakian dwellings		
Mean (Bq/m³)	*% of dwellings above 200 Bq/m³ and below 400 Bq/m³*	*% of dwellings above 400 Bq/m³*
108	14	11

Maps:

Method:

Annual average effective doses from indoor radon exposure were calculated for each districts of Slovakia. The population-weighted arithmetic mean of indoor radon concentration was calculated for every district considering different types of houses.



Map of estimated annual average effective doses from indoor radon exposure in districts of Slovakia.
Map reproduced with the kind courtesy of the Slovak Medical University in Bratislava © (2005). Reference: Ministry of the Environment of Slovak Republic: State of the Environment Report of the Slovak Republic 2003. pp 168-169. Web reference:
http://www.sazp.sk/slovak/periodika/sprava/sprava2003/kapitoly/svk2003s_fyzi.pdf

Slovak Republic, soil-gas measurements

Selected References:

NA

Campaign

Survey period	Number of Sample locations
1992-2005	*NA*

Sampling strategy:

Regions with expected high levels were more densely sampled than others.

Measurement technique

Detector type	*Measurement time*	*Depth (cm)*
(1990-1994) *NA*	*NA*	*NA*
(1994-2005) Scintillation flasks ("Lucas Cells") and counting chamber	400 s	60

Statistics of the measurements

Measurements statistics (units in Bq/m^3)					
Measurements	*Mean*	*Geo. Mean*	*Std. Dev.*	*Min.*	*Max.*
NA	21 600	*NA*	*NA*	500	712 400

Maps:

Maps of soil gas radon concentrations were produced by means of spatial interpolation. No other information is available