

**UNSCEAR** United Nations Scientific Committee on the Effects of Atomic Radiation

### UNSCEAR Global Survey on Public Exposure

#### Topical Webinar: R A D O N

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UNSCEAR United Nations Scientific Committee on the Effects of Atomic Radiation

# Objectives

- Assessment of the worldwide exposure of the public from
  - radon indoors
  - radon outdoors
  - thoron indoors
  - thoron outdoors
  - radon in drinking water
- In addition, assessment of other factors like
  - equilibrium factor (radon, thoron)
  - occupancy
  - trends in radon exposure
  - etc

basis are data from surveys -> **questionnaire** + literature review

from literature review

|   | R                   | Measured parameter (gas, proge   | ny)                  |                                      |
|---|---------------------|--|----------------------|--------------------------------------|
|   | cientific Committee | Number of measurement sites (e   | e.g.                 |                                      |
|   | f Atomic Radiation  | households, dwellings, workplace   | es)                  |                                      |
|   |                     | Duration of the measurements (ir   | n days)              |                                      |
| Radon (Rn-222)                            | in air indoc        | Seasonal correction  |                      |                                      |
|   |                     | Type of measurement device(s)  |                      |                                      |
| Survey/Project                            |                     | Assessment of thoron-sensitivity of radon  |                      |                                      |
| Title                                     |                     | measurement devices used   |                      |                                      |
|   |                     | Calculation method of mean of survey   |                      | Number of measurement sites          |
| Period when                               |                     | (e.g. population-weighted)   |                      | Sampling location (water supply, tap |
| survey/project was                        | From (YYYY)         | Arithmetic mean  | [Bq/m <sup>3</sup> ] |                                      |
| conducted:                                | To (YYYY)           | Standard deviation   | [Bq/m <sup>3</sup> ] | Sampling technique                   |
| Purpose of the survey/project (e.g.       |                     | Geometric mean   | [Bq/m <sup>3</sup> ] | Type of measurement device(s)        |
| evaluation of the radon exposure of the   |                     | Median   | [Bq/m <sup>3</sup> ] | Masurement time (in min or hours)    |
| population, delineation of radon prone    |                     | Geometric standard   |                      |                                      |
| areas)                                    |                     | deviation  | [Bq/m <sup>3</sup> ] |                                      |
| Area (country or region/area)             |                     | References to reports and public   | ations               |                                      |
| If region/area, please specify            |                     | (Web links and files as attachments will be appreciated. File attachments can be |                      |                                      |
| If region/area, please give the number of |                     | uploaded as additional material on the   |                      |                                      |
| inhabitants                               |                     | platform.)   |                      |                                      |
| Is the region/area radon prone?           |                     |  |                      |                                      |
|   |                     | Comments on an individual surve  | ٧                    |                                      |



#### Questions received so far

| SG3  |   |  |  |  |  |
|--|---|--|--|--|--|
| We have a project which estimates exposure in new buildings, but the project runs towards 2022. Should we include the results? | Yes, however, please submit the data you have so far,<br>as well and indicate in the response (due in Sept<br>2021) that there will be other data submitted in the<br>future. |  |  |  |  |
| We have surveys which already were used in previous UNSCEAR reports. Should we include these?                                  | Yes, if relevant and indicate this in the comments section of the questionnaire.  |  |  |  |  |



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# Please provide ...

- ... data from **all** surveys in your country (also before 2007);
  - no problem if not all requested data is known (leave blank)
- ... references please state all reports and publications that provide more details on the survey



# Please bear in mind

• Speciality for thoron results

#### • Corrigendum:

2 errors in radon in drinking water spreadsheet (v1.7)

-> please use corrected file (v1.8) sent out on 7 May 2021 + uploaded to the UNSCEAR Global Survey website -

http://survey.unscear.org/doku.php

#### Thoron (Rn-220) in air

| Results below given in: |   | • |
|-------------------------|---|---|
| Arithmetic mean [[ /    | Activity concentration (Bq/m <sup>3</sup> ) |   |
| Standard deviation [Be  | a/m <sup>2</sup>                            | " |

| Radon (Rn-222)                                  | in drinking wate                                 | r        |  |
|---|--|----------|--|
| Survey/Project                                  |  | Survey 1 |  |
| Title   |  |          |  |
| Period when<br>survey/project was<br>conducted: | From (YYYY)<br>To ( <sup>Yes</sup> <sub>No</sub> |          |  |
| Number of measurement sites                     |  |          |  |
| Sampling location (wate<br>outlet etc.)         | r supply, tar Yes<br>No                          |          |  |