

Interactive comment on “Spatial radionuclide deposition data from the 60 km area around the Chernobyl nuclear power plant: results from a sampling survey in 1987” by Valery Kashparov et al.

Anonymous Referee #2

Received and published: 26 February 2020

General comments

The manuscript “Spatial radionuclide deposition data from the 60 km area around the Chernobyl nuclear power plant: results from a sampling survey in 1987” by Kashparov et al. describes the values of various radionuclides from samples obtained in 1987 in the broader region surrounding of the Chernobyl nuclear power plant. The presented dataset is very valuable by itself due to its uniqueness, but nevertheless, the authors present several options for its utilization in the future. The manuscript is well written: I especially appreciate that the authors provide an extensive introduction/background.

C1

In the following review I only state a few comments and technical correction from which the manuscript could benefit.

The landing page of the dataset is well prepared and contains all the relevant information for future users. The dataset itself is well prepared and contains all the data, which is described in the manuscript, except geospatial data (see Specific Comments below). I compliment the authors on the carefully prepared and very clear metadata file. I do have two comment regarding the access to the dataset and the provided data itself, which are posted in the Specific comments section of the review.

Specific comments - Manuscript

Fig. 1 is not very clear. If possible, I suggest the authors modify the original map in a way, that the figure will be readable (enlarge text, indicate all the locations that are mentioned in the manuscript).

L168: Easting and northing data is not included in the dataset! For details see the last Specific comment regarding the dataset.

L168-170: Personally, I think you did a really nice job in creating the Table that is included in the “Spatial_radionuclide_deposition_metadata” document, which accompanies the dataset. I suggest you to include it in this part of the manuscript or in Section 4, as it allows the reader to rapidly understand the meaning of the column headers and the used units (without reading the supporting material). I also suggest to the authors to include in the manuscript a few sentences describing the used data format (e.g. the data is presented in a form of an Excel table etc.).

Specific comments - Dataset

At present (2nd half of February), the data repository requires registration in order to access the dataset and accompanying metadata. As ESSD recommends “two-click” access (see Section 3.1 in <https://doi.org/10.5194/essd-10-2275-2018>), I suggest the authors consult the Editor, if access in its present state is acceptable.

C2

The dataset in its present state does have one shortcoming, which hinders its use by other users, as it does not contain geospatial data (despite the description at L168 in the manuscript). If the authors will not add northing and easting, they should at least state the coordinates of point zero (ChNPP), so later users can use the provided angles and distance to geolocate the datapoints. If the authors will add northing and easting, a short statement specifying the used coordinate system (possibly by stating the EPSG number) should be added for clarity in the manuscript and in the metadata description.

Technical corrections

L2: remove dot after 1987

L14-15: Replace “Spatial radionuclide deposition data from the 60 km area around the Chernobyl nuclear power plant: results from a sampling survey in 1987” with “Spatial radionuclide deposition data from the 60 km radial area around the Chernobyl nuclear power plant, 1987”, as the latter is the name of the dataset provided at <https://doi.org/10.5285/a408ac9d-763e-4f4c-ba72-73bc2d1f596d>.

L19: Should “... include information on sample sites, dose rate ...” be “... include information from sample sites, such as: dose rate ...”?

L33: “Chernobyl, 1996” should be “Chernobyl Nuclear Power Plant and RBMK reactors, 1996”?

L57-58: I suggest changing “... the closest observations were for a distance of more than 100 km away to the west ...” to “... the closest observations were more than 100 km away to the west ...”

L64: I would omit “fission products” as it is a repetition from L62.

L69: What does the “c.” refer to?

L76: Should “... including, 40 ...” be “... including 40 ...”?

L78: “... Ukraine. ...” should be “... Ukraine, ...”

C3

L82: “... Ukraine. ...” should be “... Ukraine, ...”

L102: “... 60-km ...” should be “... 60 km ...”

L117: 14.00-17.00 hours?

L129: I would use “... to identify areas ...” instead of “... to identifying areas ...”

L162: “Figure” should be “Figures”

L163: The authors already describe the acronym UIAR in L18

L177: “Figure” should be “Figures”

L387: The hyperlink includes the “;” symbol and consequentially does not work. Make sure to provide a working link in the revised manuscript.

L389: The hyperlink includes the “;” symbol and consequentially does not work. Make sure to provide a working link in the revised manuscript.

Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2019-174>, 2020.

C4