Natural Hazards
and Earth System
Sciences

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Discussions

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Interactive comment on "Impact data bases application for natural and technological risk management" *by* Nina I. Frolova et al.

Anonymous Referee #1

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Review criteria and assesment

1. Does the paper address relevant scientific and/or technical questions within the scope of NHESS?

Yes, the paper covered the scientific topics of NHEES.

2. Does the paper present new data and/or novel concepts, ideas, tools, methods or results?

The paper presents a new concept and results, related to the data bases and applications to the risk management.

3. Are these up to international standards?

The international standards are rather wide in this direction, so the paper is included to them.

4. Are the scientific methods and assumptions valid and outlined clearly?

Yes, all scientific methods and assumptions are valid and presented clearly, by text, figures, tables and results.

5. Are the results sufficient to support the interpretations and the conclusions?

All results and conclusions support the interpretations and outcomes and are supported by several case-studies.

6. Does the author reach substantial conclusions?

The authors reach substantial conclusions in the scope of the paper related to the risc management of the natural and technological hazards.

7. Is the description of the data used, the methods used, the experiments and calculations made, and the results obtained sufficiently complete and accurate to allow their reproduction by fellow scientists (traceability of results)?

The traceability of results are sufficiently complete and accurate and allow the reproduction. This is supported by the description of the algorithm, data and methods of calculation.

8. Does the title clearly and unambiguously reflect the contents of the paper?

Yes, the title covers clearly the topic of the content.

9. Does the abstract provide a concise, complete and unambiguous summary of the work done and the results obtained?

Yes, Abstract provide correct summary of the work done.

10. Are the title and the abstract pertinent, and easy to understand to a wide and diversified audience?

The title and abstract are targeted to the professionals, but also are useful for the decision makers and everyday practicing people in the filed of risk management.

11. Are mathematical formulae, symbols, abbreviations and units correctly defined and used? If the formulae, symbols or abbreviations are numerous, are there tables or appendixes listing them?

The mathematical description is one of the strongest sides of the paper.

12. Is the size, quality and readability of each figure adequate to the type and quantity of data presented?

The size and quality of figures is representative to all data presented.

13. Does the author give proper credit to previous and/or related work, and does he/she indicate clearly his/her own contribution?

Yes, it is. Some additional references are possible to include. (for examp.Ranguelov B., 2011. Natural Hazards – nonlinearities and assessment., Acad. Publ. House (BAS), ISBN 978-954-332-419-7, 327 pp.)

14. Are the number and quality of the references appropriate?

Mostly the references are cited appropriately.

15. Are the references accessible by fellow scientists?

Most of the references are accessible to the scientific community.

16. Is the overall presentation well structured, clear and easy to understand by a wide and general audience?

Yes, especially by the people working in the field of the hazard assessment and risk management .

17. Is the length of the paper adequate, too long or too short?

The length is normal.

18. Is there any part of the paper (title, abstract, main text, formulae, symbols, figures and their captions, tables, list of references, appendixes) that needs to be clarified, reduced, added, combined, or eliminated?

In the list of References could be added some publications which is possible to be used for extended research (for examp. B. Ranguelov., A. Frantsova., 2017. Multi-hazards early warnings. Research, models and Bulgarian expertise., LAMBERT Academic Publishing., Saarbrucken, 224 pp. ISBN: 978-620-2-07727-9 and Paskaleva I., B.Ranguelov.2015. Lessons learned by recently happened natural disasters and future research needs., In "Engaging the Public to Fight the Consequences of Terrorism and Disasters." Eds. I. Apostol, J.Mamasaklihsi, D.Subotta, D. Reimer. NATO Sci. for Peace and Security, E: Human and Societal Dynamics, vol. 120., IOS Press., 257-268 pp.)

19. Is the technical language precise and understandable by fellow scientists?

The technical and scientific language is understandable by the specialized auditory.

20. Is the English language of good quality, fluent, simple and easy to read and understand by a wide and diversified audience?

I'm not a professional linguist so it is difficult to me to asses the quality of English language used.

Evaluation synthesis

The paper entirely covered the scientific topics of NHEES. The paper presents a new concept and results, related to the data bases and applications to the risk management.The international standards are rather wide in this direction, so the paper is included to them, but all scientific methods and assumptions are valid and presented clearly, by text, figures, tables and results. All results and conclusions support the interpretations and outcomes and are supported by several case-studies.

The authors reach substantial conclusions in the scope of the paper related to the risk management of the natural and technological hazards. The traceability of results are sufficiently complete and accurate and allow the reproduction. This is supported by the description of the algorithm, data and methods of calculation.

The title of the paper covers clearly the topic of the content and the abstract provides correct summary of the work done. The title and abstract are targeted to the professionals, but also are useful for the decision makers and everyday practicing people in the filed of risk management.

The mathematical description is one of the strongest sides of the paper. The statistics provided are clear, correct and supported by several figures and schemes. The size and quality of figures is representative to all data used and interpreted.

The reference list is dominated by Russian publications. Some additional references are possible to be included. (for examp. Ranguelov B., 2011. Natural Hazards – nonlinearities and assessment., Acad. Publ. House (BAS), ISBN 978-954-332-419-7, 327 pp.) to the section where the nonlinear effects are described.

In general mostly the references are cited appropriately and most of the references are accessible to the scientific community.

The presentation of the paper is well structured, clear and easy to understand by a wide and general audience and especially by the people working in the field of the hazard assessment and risk management .The length is normal.

In the list of References could be added some publications which is possible to be used for extended research (for examp. B. Ranguelov., A. Frantsova., 2017. Multihazards early warnings. Research, models and Bulgarian expertise., LAMBERT Academic Publishing., Saarbrucken, 224 pp. ISBN: 978-620-2-07727-9 and Paskaleva I., B.Ranguelov.2015. Lessons learned by recently happened natural disasters and future research needs., In "Engaging the Public to Fight the Consequences of Terrorism

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