

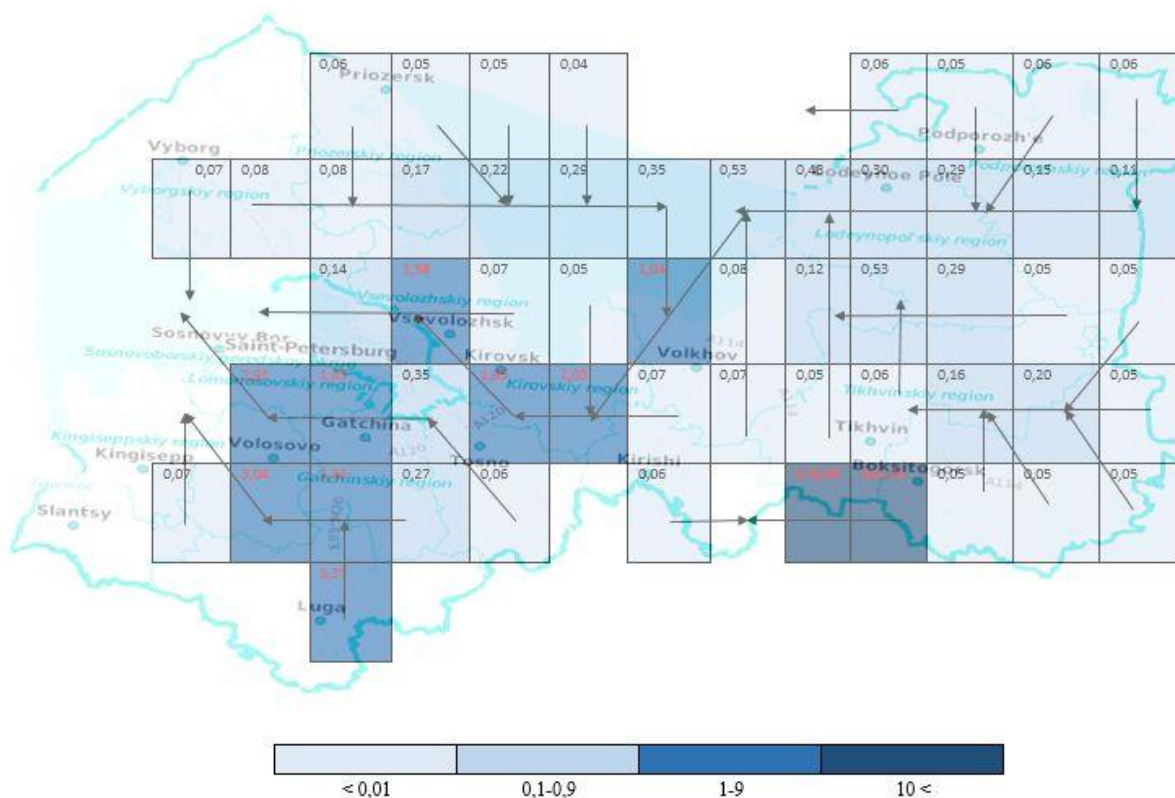
AN INTEGRATED ENVIRONMENT IMPACT ASSESSMENT OF CHEMICALS

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The presenting work is devoted to a comprehensive environment impact assessment for different types of chemicals, which enter the air, water bodies and soil from anthropogenic sources. In this paper, for the first time, will be presented the approach to obtain estimates for the chemical load for all high concern chemicals on a global scale will be presented. This is a very important result of big research work because it allows us to get adequate assessments of the success of any activities on implementation e.g. of Sustainable Development Goals, and first of all Goal 12, item 12.4 - by 2020, to achieve the substantially reduce of chemicals release to air, water and soil in order to minimize their adverse effects on human health and the environment. In this model global GIS data as a source of information was used, which is necessary for the modelling of processes of chemicals migration between media and transboundary transfers. The result of this work is maps of the load of the high concern chemicals for environmental media. There is the result of chemical load calculation for the heavy metal in the water bodies of the Leningrad region as example on figure.



Keywords: Chemical load; global estimation; SDGs; environmental pollution; modeling