

Sodium balance structure within the elementary geosystems (by the example of basin of the Elva River in the Komi republic)

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Abstract

The evaluation of the sodium ionic balance by the example of the little-developed area of the Elva River basin in the Russian Federation has been performed in the present research. It has been established that the main role in the element circulation belongs to the lithogenic base due to prevalence of the freely-soluble rocks composing the basin. The contribution of the atmospheric precipitations to the ion delivery and removal within the catchment area is insignificant and makes about 20% which is related to remoteness of the area from the large industrial centers and areas of the seas. It has been discovered that the plant industry plays a small part in the sodium circulation. In general, the anthropogenic transformation of the sodium circulation is primarily associated with the animal industry facilities due to the cattle-feeding with NaCl. © 2014 AENSI Publisher All rights reserved.

Keywords

Atmospheric precipitations, Balance, Crops yield, Delivery, Mineral fertilizers, Offset (Removal), Sodium ions