

Nitrogen Balance of Latvia

**Inga Grinfelde¹, Jovita Pilecka¹, Arte Bardule², Linda Fibiga³, Ilga Kokorite^{1,6},
Solveiga Kadike⁴, Aiga Krauze³, Anete Kublina³, Dagnija Lazdina², Emils Rubins³ and
Laima Berzina^{1,5}**

¹ Scientific Laboratory of Forest and Water Resources, Latvia University of Life Sciences and Technologies, Jelgava, Latvia

² Latvian State Forest Research Institute "Silava", Salaspils, Latvia

³ State limited Liability Company "Latvian Environment, Geology and Meteorology Centre", Riga Latvia

⁴ Latvian Institute of Aquatic Ecology, Riga, Latvia

⁵ Faculty of Information Technologies, Latvia University of Life Sciences and Technologies, Jelgava, Latvia

⁶ Institute of Biology, Latvia University, Riga, Latvia

E-mail: inga.grinfelde@llu.lv

Abstract

The evaluation of nitrogen balance at country level is one of key steps to responsible and effective nitrogen management system development and adoption of reactive nitrogen loss mitigation system. The nitrogen balance of Latvia is developed according to OECD, EMEP, IPCC and EPNB methodologies. The 12 pools of nitrogen inflows and outflows are analysed for time period from 2012 till 2016. The largest flows are related with agricultural sector, as well as transboundary nitrogen flows play very role in nitrogen balance of Latvia. The nitrogen budget of Latvia highlights the complexity of mitigation policy development and support policy decisions.

Keywords: nitrogen balance, reactive nitrogen, circular economy.
