Assessment on nitrogen flows and livestock farming in France. Main issues and proposed solutions


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1. Background
Livestock consumes large amounts of agricultural products and is a major source of reactive nitrogen. Moreover different economic and societal factors contributed to a concentration of livestock in the West of France, leading to an increased pressure on the environment. The surplus of N causes pollution especially in the atmosphere, water resources and coastal ecosystems. France is presently challenged by the European Commission on the implementation of the Nitrates directive.

2. Objectives
A collective expert assessment was conducted in 2011. Its objectives were to:
- make a synthesis of updated knowledge on N flows in livestock farming activities on different scales, from the animal to the regional scale with a specific focus on the farming system scale. This considered the different forms of nitrogen (nitrate, ammonia, nitrous oxide, others) and the link with impact.
- make a comparison between different livestock systems.
- identify several possible actions in livestock breeding systems, e.g. improved techniques and management, change in the system, territorial and economic incentives.