



CASE STUDY

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## Payments for Ecosystem Services

# Vittel Nestlé

This case study presents a scheme for ecosystem services payment from Vittel, France. The mineral water bottling company Perrier Vittel S.A. (Nestle Waters) initiated payments for farmers in the area to prevent degradation of natural water quality by increased nitrate levels used for maize production and poor management of animal waste.

## Vittel

is a small town in the north east of France, in the region Lorraine.

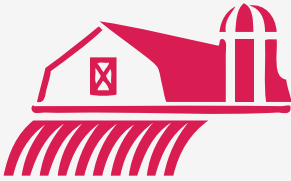
Perrier Vittel, the mineral water brand, originates in the Grande Source fountain in Vittel, drawing water from a 6,000 ha aquifer 80 m below ground.



**Area:**  
24,13 km<sup>2</sup>

**Population:**  
5,745 people

**Main economic activity:**  
agriculture and tourism,  
based on thermal water.

**26**   
farms on  
**1,700**  
hectares were offered  
subsidies to cover the  
initial transition costs to  
less intensive farming

## Background

The world's largest water bottling company, Perrier Vittel (now: Nestle Waters) pulls the water for its internationally sold brand of bottled mineral water Perrier, from Vittel, France. To be labeled Vittel, the water must comply with certain standards, including a maximum nitrate content of 4,5 mg per liter and no content of pesticides.

## Problem

By the end of the 1980s, the change from traditional hay-based cattle ranching to a maize-based system as well as the intensification of agriculture brought a threat to the company. As a response to growing demand for maize for animal feed local farmers increased maize production, which led to contamination of water with fertilizers. In combination with overstocking and poor management of animal waste this became a risk for Perrier Vittel, which saw its supply of water threatened.

## Stakeholders

The decline in watershed quality also affected local farmers and inhabitants whose water resources were increasingly contaminated while their benefits from tourism based on thermal water were threatened as well. Public authorities had an interest in preserving tourism and the region's reputation, as well as in finding generally applicable solutions to similar problems elsewhere.

## Solution

After a thorough research, Perrier Vittel decided that reduction of nitrate emissions from agriculture would eliminate the threat identified. They designed a payment scheme to incentivize farmers to change their farming practices.

## Process of designing the PES scheme

Vittel conducted a four years research in cooperation with the French National Agronomic Institute starting from 1989, aimed to shed light on the relation between actual farming practices and nitrate concentration levels in the aquifer. It further aimed to identify and test the practices necessary to reduce and maintain the rate of nitrates at the desired level rate with the goal to design an incentive scheme that motivates farmers to change their farming practices. Perrier Vittel created Agrivair in 1992 as an intermediary to negotiate and successfully implement the hence designed payment scheme. Placed just outside the town of Vittel, close to farmers, it had a strategic role. The director had been formerly employed within the research team, and was well-known by farmers and stakeholders. He was a key person for a successful communication between programme managers and farmers and his presence ensured continuity between design and implementation of the programme.

## Payment scheme

26 farms on 1,700 hectares were offered subsidies to cover the initial transition costs to less intensive farming. Conditions for payments required them to give up maize cultivation for animal feed and to adopt extensive cattle ranching instead. They were required to do pasture management so that each farm would be able to cover their own needs of animal feed or to reduce pasture capacity to maximum one head per hectare. Further subsidies were allocated for giving up agrochemicals and modernizing farm buildings to allow for optimal waste management.

## Costs

The costs carried by Perrier Vittel, excluding the sunk costs linked to establishing and operating Agrivair were estimated to have been over €24,25 million in the first seven years of scheme implementation. This is an average cost of €1,52 per m<sup>3</sup> of bottled water produced.

## Benefits

The records show that the overall rate of nitrates had decreased in more than half of the wells and stagnated in the remaining ones. Hence, the payment schedule had reached its goal of maintaining nutrient levels within desired targets and proved successful for all parties involved.

This case study was prepared as part of THE DANUBE PES PROJECT: PROMOTING PAYMENTS FOR ECOSYSTEM SERVICES AND RELATED SUSTAINABLE FINANCING SCHEMES IN THE DANUBE BASIN.

This project promotes and supports land managers who help us sustain the benefits that we all get from nature. The project is implemented by the WWF Danube-Carpathian Programme with the financial support of the GEF through UNEP and the European Commission.



### Why we are here.

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony and nature.

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