

# Creation and development of a network of forest fire safety monitoring equipment

CAP funds used to install digitalised surveillance system detecting forest fires in Latvia.

## EAFRD-funded projects

**Country:** Latvia

**Location:** Rīga

**Programming period:** 2014-2020

**RDP Priority:** P4. Ecosystems management

**Focus Area:** Biodiversity restoration, preservation & enhancement

**Measures:** M08. Investments in forest areas

<b>Funding:</b>	Total budget	1 153 000 (EUR)
	EAFRD	784 040 (EUR)
	National/regional	368 960 (EUR)

**Timeframe:** 01.2020-03.2021

**Project promoter:** Latvian State Forest Service (SFS)

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## Summary

The Latvian State Forest Service implemented a digitalisation project to improve the detection and monitoring of forest fires. The remote surveillance system they tested was also able to collect data on forest fires coordinates, area and configuration, all of which helps to reduce the overall impact of this growing threat. Common Agricultural Policy (CAP) funding was used to set up and assess the performance of the AUANS remote fire identification and surveillance system. The project financing covered the acquisition of the necessary equipment (including software and licences), its installation, programming, testing and configuration, as well as operator training.

## Project results

- More than 30 forest fires were detected during the project's first six months of operational surveillance.

## Lessons & Recommendations

- Latvian State Forest experts predict that forest fires will be more frequent and more destructive in the future.
- Any integration of remote surveillance technology should be accompanied by preventive activities that inform the public about the dangers of forest fires.

## Context

One of the biggest challenges when fighting forest fires is a lack of workers. Due to low pay and harsh working conditions, it is difficult to find people who are willing to work as fire watchtower attendants. In Latvia, a couple of hundred seasonal employees are hired every year to work during the fire-watch period. These include forest firefighters, watchtower attendants, operational attendants and specialised vehicle drivers. Out of these, almost half are hired as fire watchtower attendants. Installing a remote fire identification and surveillance system would reduce the need for human involvement in this task.

In 2017, the Latvian State Forest Service (SFS) decided to launch a pilot project to set up such a system in the area around Riga. This region is more vulnerable to forest fires than other regions of



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Latvia with, for example, some 62 fires identified in the first half of 2023 alone; responsible for damaging 492 ha of forest. During the development process, the project team gathered operational experiences and lessons learnt from work on similar systems in other countries. This included receiving support from Lithuania, where a similar system has been operating for almost a decade.

## Objectives

This project aimed to achieve faster and more accurate identification of forest fire locations, which would help to reduce the area of damaged forest, increase safety and reduce emissions.

## Activities

The activities implemented within the project were to:

- Equip 12 fire observation towers in the Riga region with the AUANS remote fire identification and surveillance system. The system is operated by the Inčukalns forest fire station control centre.
- Purchase new equipment (including software and licences), install and programme the equipment at the operators' workplaces.
- Test and configure the equipment. Train the operators.
- Collect and analyse data from the AUANS system in order to inform decision making about whether to adopt the surveillance system permanently and more widely.

## Main results

- Within less than half a year, the AUANS system had already detected more than 30 forest fires. The prompt notification of these fires enabled the State forest firefighting services to respond quickly and reduce their impact.

## Key lessons

- Latvian State Forest experts estimate that, as global warming continues, the vegetation period will become longer, which may lead to an increase in the number of forest fires in the future. It is predicted that forest fires will be more frequent and more destructive in the future. It is therefore important to detect the outbreak of a fire promptly and to act quickly to limit and eliminate it. The use of low-paid seasonal human work is not a sustainable option in this context, but the nationwide use of automated systems offers a potential digitalised solution.
- Public awareness-raising about the hazards of forest fires is also particularly important, especially onsite in forest areas during the hot period of the year. Any integration of remote surveillance technology should be accompanied by preventive activities that seek to inform the public.

### Additional information:

[www.vmd.gov.lv](http://www.vmd.gov.lv)



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