

G-06-2023			
Date of award: 11 June 2024			
Project	Beneficiary(ies)	Description of the project	Duration
CEURDIST	Technical University of Munich, Germany	Europe's forests constitute the main carbon sink of the European Union (EU), but increasing disturbances have raised concerns about their future climate change mitigation potential. Understanding how changing forest disturbances impact Europe's forest carbon pools requires rigorous monitoring, but monitoring is difficult as most existing data sets were not designed to estimate disturbance area and trends. CEURDIST aims to overcome this problem by creating a disturbance database from manual interpretation of remote sensing data covering all of Central Europe. CEURDIST will (1) update and harmonize existing databases from the literature, (2) expand existing databases to increase sampling densities using novel semi-automatic interpretation tools, and (3) estimate disturbance area and trends from the database. The project is expected to yield one of the most comprehensive and up-to-date databases on forest disturbance in Europe, covering 40 years from 1985 to 2023. CEURDIST will also provide a workflow for rapidly updating the disturbance database into the future, as well as robust estimates of disturbance area and trends for Central Europe at national and aggregated levels. As such, the project addresses the overall aim of the call, which is "to compile an exhaustive open-access European forest disturbance reference dataset" and also contributes to the overall aims of the FORWARDS project by improving our knowledge on the "integration of remote sensing-derived maps and reference data for the statistically rigorous estimation of forest disturbance area" and by "reviewing strengths, weaknesses, limitations, and potential implementations of remote sensing in forest disturbance monitoring".	Start: 9/2024 12 Months

EFID	RDM Progetti L.t.d., Italy	Forests cover more than one-third of Europe and play a key role in the continent's environment, economy, and society. However, global warming is increasing the frequency and magnitude of disturbances, which are threatening the stability of European forests. In this context, monitoring of forest ecosystems has a pivotal role. Remotely sensed data hold great potential in this context, but reliable forest disturbance reference data is needed both to (1) construct performant models to use remote sensing data for mapping forest disturbances in near real-time and (2) produce statistically rigorous estimates of forest disturbance areas. EFID aims to construct a reliable photointerpretation reference dataset of forest disturbance that occurred in the North of Europe in the last three decades and to exploit such dataset to (i) support the estimation of forest disturbance area in Europe and (ii) explore the advantages of new satellite missions (e.g. Sentinel-2 and PlanetScope) in near real-time forest disturbance mapping. EFID has the ambition to be a part of the ForestWard Observatory, a long-lasting tool to support decision-making. This project is organized into five work packages: project coordination (WP 1), construction of the satellite and aerial imagery database (WP 2) and photointerpretation to construct the forest disturbance reference dataset (WP 3), comparison of different satellite missions and methods for the near real-time mapping of forest disturbances by using the forest disturbance reference dataset (WP 4), and reliable estimation of forest disturbance areas for the North of Europe (WP 5).	Start: 6/2024 12 Months
RIGOR-MED	Agresta Sociedad Cooperativa, Spain	RIGOR-MED aims to enhance the understanding of forest disturbances in Mediterranean forests and to support sustainable forest management efforts in the region. This project focuses on comparing and validating forest disturbance products to assess the effectiveness of remotely sensed data to monitor changes, especially in regions facing unique challenges like the Mediterranean forests. Available existing disturbance products as well as internally created change products, using satellite time series and change detection algorithms, will be compared and validated towards harmonisation and fusion processes. To assess the quality, consistency and validate the	Start 9/2024 12 Months

		different products, an unbiased reference forest disturbance database, publicly available, will be generated by visual interpretation of high-resolution images. To this end, an interpretation guide will be elaborated as an objective protocol to ensure unbiased. Finally, the high-quality reference data source created will serve to achieve a statistically rigorous estimation of forest disturbances areas. A dedicated project website and scientific articles will play a crucial role for sharing information and disseminating findings and the outcomes as open-source products.	
--	--	---	--