Project Name	Satellite Data and Digital Twin Models to support Management of Transboundary River Basins in Kenya
Start – End	July 2023 – December 2025
Project Value	735.000 EUR
Slovenian Funding	735.000 EUR
Recipient Country/ Donation Recipient	Kenya / Jomo Kenyatta University of Agriculture and Technology as Recipient
CRS Code	CRS CODE 14040
Project Description	With a population of 48 million, Kenya faces enormous challenges in managing its water resources. 85 per cent of the country is classified as arid or semi-arid. Water sources are very unevenly distributed. A third of water resources are located outside the country, and their management is a source of inter-state conflict. Climate change is causing floods and droughts. This is reflected in lower agricultural production, which accounts for a relatively high 22% of GDP and employs up to 75% of the labour force. As part of the project, digital twins of the Sentinel and Nemo-HD satellite images will be created for critical areas of the ecosystem. Digital twin models are advanced computer tools that allow numerical analysis of the physical interactions between water, soil, vegetation and human infrastructure in terrestrial, riverine and marine ecosystems. The digital twins will form the basis for monitoring and multi-sectoral watershed management in Kenya's major river basins, including the Omo, Mara, Lumi and Dawa rivers, and around Lake Victoria and Lake Turkana. The project will develop three pilot technology demonstrations for three basic ecosystem types in mountainous areas at the headwaters of rivers, in floodplains and in degraded areas of catchments. The aim of the project is to provide appropriate satellite technologies and digital models that will enable decision-makers to access the most objective data on the environment and produce integrated analyses of ecosystems.
Project Phase	The project is being implemented.