06/11/2015

ITV wins award in international symposium in Germany

The study reveals the dynamics of soil use and occupation in the Itacaiúnas river basin in the southeast of the Brazilian state of Pará

Research by the Vale Institute of Technology (ITV), which demonstrates the dynamics of soil use and occupation in the Itacaiúnas river basin in the southeast of the Brazilian state of Pará, received an award at the 36th International Symposium on Remote Sensing of the Environment in Berlin, Germany. The ITV participated in the event for the first time and received the "Buddy Bear Berlin – Best Poster" award.

The symposium, which brought together over a thousand researchers, is the main international event for the discussion of this theme. The ITV competed against a further 399 studies that registered to take part in the symposium. "What made our research stand out was the methodology used, which demonstrates the dynamics of soil use and occupation in the Itacaiúnas river basin from the beginning of the cycle of occupation in the region in the 70s, at the same time that the first

global coverage satellites were launched by the American Space Agency," explains Pedro Walfir, the principal researcher for the study who represented the institute at the event.

About the Project

Two years ago, the ITV started to develop its Itacaiúnas Project, the objective of which was to monitor water resources in the Itacaiúnas river basin. The study aims to collect and transmit in real time information on the characteristics and availability of these resources in the river basin. Both the scientific community and the local population are expected to benefit as a result, as this information could be used for prevention studies by agencies such as the Civil Defense.

For the part of the study covering territory dynamics, monitoring was carried out using Landsat satellite images provided by American Geological Services. These indicated a gradual reduction in the coverage of vegetation over the last 40 years, during which time the forest has been making way mainly for pastureland.

Five monitoring stations out of an expected total of eight have already been installed, three of which are located in the copper mining areas of Sossego (in the city of Canaã dos Carajás) and Salobo (in Marabá) and the Onça-Puma nickel mine (in Ourilândia do Norte), and two others in private areas. The three remaining stations are expected to be installed by the end of the second half of 2015.

The Itacaiúnas river basin covers an area of 42,000 square kilometers and provides water to ten municipalities in the state of Pará. The combined population of these areas is approximately 570,000 according to the 2012 census carried out by the Brazilian Institute of Geography and Statistics (IBGE).

Technical activities involved in the project were developed in partnership with the National Waters Agency (ANA), the Mineral Resources Research Company (CPRM) and the State Department for the Environment and Sustainability (SEMAS).

About the ITV

The ITV was founded in 2009 to develop technology and innovation in order to contribute to Vale's projects and to develop new business opportunities for the company. It is a research and teaching institution that works to create future possibilities through scientific research and the development of technology in partnership with the international scientific community. The ITV has two sites in Brazil: one in Ouro Preto (Minas Gerais state) and the other in Belém (Pará state). The site in Minas Gerais focuses on mining and the site in Pará works with sustainable development.

More information

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