



## **Malaria Early Warning: The MalarSat project**

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Malaria is one of the major public health challenges undermining development in the world. The aim of MalarSat Project is to provide a malaria risks infection maps at global scale using Earth Observation data to support and prevent epidemic episodes. The proposed service for creating malaria risk maps would be critically useful to improve the efficiency in insecticide programs, vaccine campaigns and the logistics epidemic treatment.

Different teams have already carried out studies in order to exploit the use of Earth Observation (EO) data with epidemiology purposes. In the case of malaria risk maps, it has been shown that meteorological data is not sufficient to fulfill this objective. In particular being able to map the malaria mosquito habitat would increase the accuracy of risk maps. The malaria mosquitoes mainly reproduce in new water puddles of very reduced dimensions (about 1 meter wide). There is no instrument that could detect such small patches of water unless there are many of them spread in an area of several hundreds of meters. MalarSat aims at using the radar altimeter data from the EnviSat, RA-2, to try and build indicators of mosquitoes existence. This presentation will show the scientific objectives and principles of the MalarSat project.