

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Applications and Economic Benefits (5)

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EXPLOITING UNMANNED AERIAL VEHICLES TO MAP OUT WATER AVAILABILITY, COMBAT
ILLEGAL MINING AND FOR PRECISION AGRICULTURE IN GHANA

Abstract

Water is a very important resource for mankind. In Ghana, water serves both domestic and industrial purposes. Nevertheless, illegal mining dynamics continue to impact on water resources which have negative repercussions for water health and the health of the people that use the water. These water sources become heavily polluted with chemicals and other substances making treatment of water for use expensive. Drastic measures need to be in place to curb these activities ensured. There is the need to manage water resource well so that there would not be any deficit in the country's water supply. The Ghana Space Science and Technology Institute (GSSTI) plans to guard water resources through monitoring and mapping using state of the art unmanned aerial vehicles for effective water management for domestic and industrial purposes. Although they map out on a smaller scale, unmanned aerial vehicles provides spatial data on demand anytime with very high spatial resolution to tackle water management, illegal mining and for precision agriculture. The presentation focuses on a proposal by the GSSTI to secure unmanned aerial vehicles to map out water availability, combat illegal mining and provide services to agricultural practices in Ghana.

Key words: Illegal mining, water resources, remote sensing, Ghana.