

# System for monitoring law enforcement of informal mining

## TITLE: SYMIN

Earth Observation Support to detect and monitor  
Artisanal and Small Scale Mining Activities

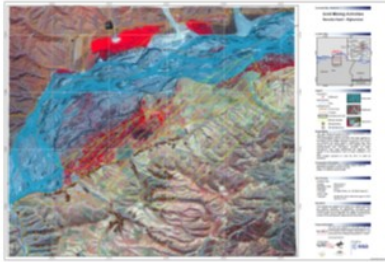


Fig 1. SYMIN - Gold Mining in Afghanistan

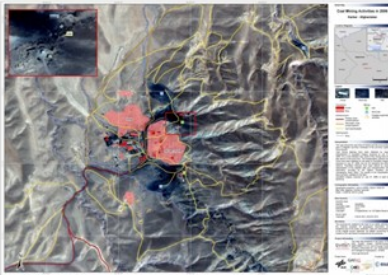


Fig 2. SYMIN - Coal Mining in Afghanistan

- **Users:** Geological Surveys, Ministries of Mines, Environmental Protection Agencies
- **Need:** Artisanal and Small Scale Mining (ASM) worldwide activity; 80-100 Mio. people dependent on ASM
- **Challenge:** Small operations in remote areas of Afghanistan, high impact on the environment, much of actual economic impact lost
- **Initiative:** Very High Resolution (VHR) imagery to detect mining operations, stereo imagery to estimate material extracted, radar coherence information for informal border crossings, active/non-active operations,...
- **Results:** Maps, geographical information for GIS, end-user dossiers for monitoring and inspecting artisanal and small-scale mining and provide assistance to miners
- **Service provider:** GAF AG, Arnulfstr.199 80634 Munich, Germany; <http://www.gaf.de/>

**GAFAG**

**EARSC**

European Association  
of Remote Sensing  
Companies

Best practises of data utilization in Europe, February 2014