Evaluating atrocities under the watchful eye of satellite imagery

GaTHR, or Geospatial Technologies for Human Rights, extends from the AAAS mission for human rights organizations worldwide. In war-ravaged and restricted areas around the world, GaTHR uses DigitalGlobe satellite imagery and remote sensing analysis to map land use patterns, population movement, destruction of structures, and changes to the environment caused by the conflict.

The world before monitoring

Throughout the world, escalating political upheaval and suffering deny vast populations basic human rights, and many groups have been oppressed for generations. These rights are conceivably protected by the principles of international humanitarian law, which governs the conduct of war and seeks to protect civilians and civilian infrastructure.

The major obstacles to establishing necessary proof of violations include uncovering atrocities and proving their occurrences. So many conflicts take place in widespread remote areas that are guarded with armed militia who restrict access. The challenge is to reach these areas and gather information about their conditions.

Before GaTHR, advocacy groups relied on eyewitness accounts, which reached the world only when a wave of refugees escaped to a camp long after the attack. Testimony was often dismissed as biased in legal proceedings. This was the reality in areas such as Burma, Chad and Darfur in Sudan, Zimbabwe, Israel, and Lebanon until GaTHR collected evidence from satellite imagery that changed the way the world views war strategies and military actions in these areas.

Increased accountability

Several case studies that GaTHR compiled from satellite imagery to date have captured the world’s attention. For example, GaTHR helped Zimbabwe Lawyers for Human Rights (ZLHR) file for lawsuits on behalf of communities devastated during the Government of Zimbabwe campaign, Operation Murambatsvina (translated as Operation Restore Order or Drive Out Trash).
The influence and awareness that the GaTHR Project affords the international human rights community is further emphasized by the U.S. Agency for International Development (USAID) and the Department of State, who confirmed the extent of ethnic cleansing in Darfur. These agencies used DigitalGlobe imagery and other classified sources to analyze conditions of widespread destruction of villages, livestock, and crops as part of an ethnic cleansing campaign in Darfur.

**Change lives... faster**

DigitalGlobe’s worldwide coverage provides a rich global canvas of images to support organizations like GaTHR and other humanitarian efforts. Examples such as the Zimbabwe and Darfur studies prove that high resolution imagery is essential to documenting important issues, detecting change, assessing damages, and revealing unlawful activities anywhere in the world. DigitalGlobe is proud to provide exceptional quality imagery products and related software tools for a full content solution to projects like GaTHR and industries worldwide.

Maps, land use analysis, and change detection provide data to support human rights advocacy campaigns; they provide supporting documentation to legal cases, visual proof to corroborate on-the-ground reporting, and enhance coordination and prevention efforts. Additionally, geospatial technologies increase the ability for international organizations, government agencies, and non-governmental organizations to collaborate and rapidly gather, analyze, and disseminate information, especially during times of crisis.

"Satellite imagery is especially handy in the legal context of presenting human rights issues because it is difficult to argue with the before and after evidence."

**LARS BROMLEY, PROJECT DIRECTOR, AAAS**

**Challenge**
The major obstacles to establishing necessary proof of violations include uncovering atrocities and proving they occurred. Reaching these areas to gather information isn’t always easy.

**Solution**
GaTHR collected evidence from satellite imagery that changed the way the world views the war strategies and military actions in these areas.

**Results**
Satellite imagery provides supporting documentation to legal cases, visual proof to corroborate on-the-ground reporting, and enhance coordination and prevention efforts.

**INDUSTRY**
» Humanitarian

**USES**
» Human rights
» Damage assessment
» Change detection

**PRODUCTS USED**
» QuickBird 60 cm, natural color

**Before and after images of Bir Kedouas, Chad, with intact structures before and ash outlines after.**