

គំរោងប្រតិបត្តិការគ្រប់គ្រងដីក្នុងតំបន់រងផលប៉ះពាល់ពីសកម្មភាពរ៉ែ
 LAND ADMINISTRATION IN MINE AFFECTED AREAS PROJECT (LAMAA)

សហប្រតិបត្តិការជាមួយ
CANADIAN PARTNERSHIP




1. Project Objectives & Site selection
 2. Air Photo and Geodetic Control
 3. Satellite Imagery
 4. Training
 5. Preliminaries to Demarcation
 6. Field Operations
 7. Property Identification & Issuing Titles.



Project Objectives and Site Selection

Objectives

- Develop Safe Procedures for Land Titling in Mine Affected Areas
- Create and Issue Land Titles in Poor Villages
- Recommendations to Land Policy Council on field operating procedures

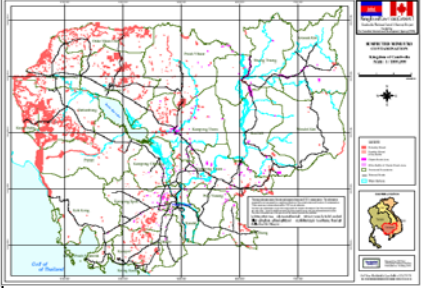
Site Selection

- Mine areas in villages
- Active area where mine clearing was being done
- Not in a current W/B LMAP designated area.



Origins of Project

- Follow on to the National Level One Mine Location survey which identified problem areas.
- The W/B funded Land Management Administration Project was approved
- Canadian expertise in defining and working in mine affected areas.



Identification of mine affected areas in consultation with local area residents.



Researching existing maps and using GPS receivers to locate mine boundary locations



Typical land mines and unexploded ordnance supplied by China, Russia, the USA and others



Land Mines



Uncovered land mine – very difficult to see



Ministry of Natural Resources and Environmental Conservation
Ministry of Natural Resources and Environmental Conservation
Ministry of Natural Resources and Environmental Conservation



2. Air Photo and Geodetic Control

Mapping control was established at photo-identified points by GPS



GPS Control Survey - Kvah Lech Village
Note the man with one leg



Many of the mines were placed by the roadside



Existing aerial photography was initially used as a photo base to locate property boundaries. This proved unsuccessful as many roads were relocated due to mines.



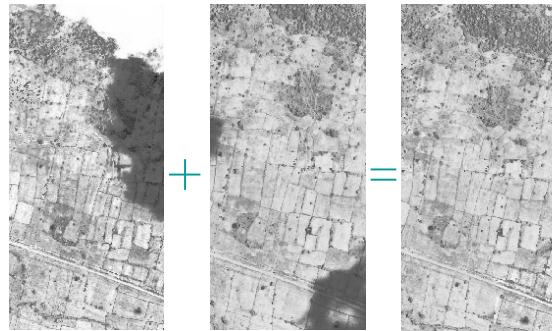
3. Due to cloud cover, new air photo was not economical, therefore satellite image was acquired for the area.

QuickBird Imagery

- Highest Resolution satellite data currently available to the public.
- 60cm/pixel resolution
- Can be used in place of aerial photography at appropriate scales.



Removing Clouds and Shadows



Improving the Quality of the Image

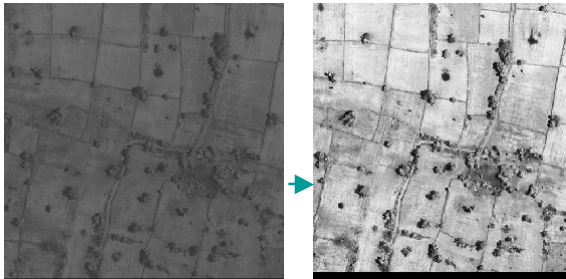
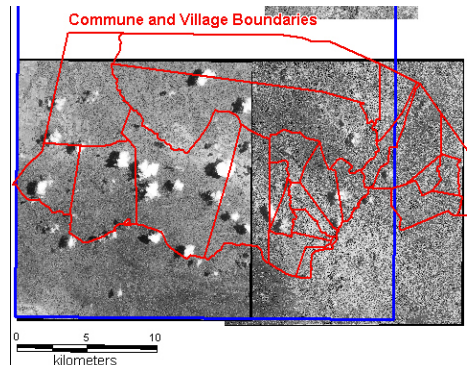






Image provided maps at 1:2,000 scale with excellent clarity

Quickbird Images with Village Boundaries overlaid



Satellite image with property boundaries and suspected Mine area overlaid.












4. Training








A field team of 28 Cambodians were trained. 15% were women



Training Objectives

1. To develop training materials based on the W/B funded LMAP training manual and other training materials related to this project.
2. To strengthen capacity of project staff, spread out the understanding from provincial level to the district level and community level;
3. To instill techniques and skills for land administration in mine affected areas in Ministries, and
4. To promote land administration and safety access in land mine awareness generally among the local communities and people.







Content of the Course

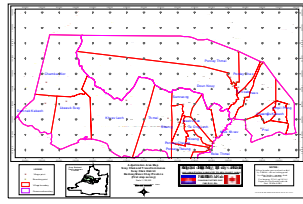
- Demarcation
- Land Survey
- Adjudication and Public Display
- Mine detection
- First Aid, Victim Evacuation
- Documentation
- Data and Information Management System
- Legal Framework
- Dispute Resolution
- Gender Sensitivity

Mine detection training using electronic locator.







6. Preliminaries to Demarcation



ប្រយោជន៍
 ក្រសួងរៀបចំដែនដី នគរូបនីយកម្ម និងសំបូរសំណង់
 រាជធានីភ្នំពេញ

Public Awareness and Community Participation (PACP)


- Radio, TV
- Newspaper
- Poster, Newsletter
- Comic books
- Mobile announcement







• Work with the local village chiefs to define village and commune boundaries.

Public Land identification by Local Authorities and related departments in the Province







7. Field Operations



Field Teams work with locals on property boundary Demarcation



Confirming suspected mine area and parcel boundary with the owner before entering land and clearing.



Detecting mine and UXO
Prodding suspected point activities, the mine detector man is following safety procedures



Marker is marking the safety lane for Demarcation, Adjudication Officer and land owners



Safety pathways through properties are marked with red paint.





An alternate method of locating mines was using "sniffer" dogs

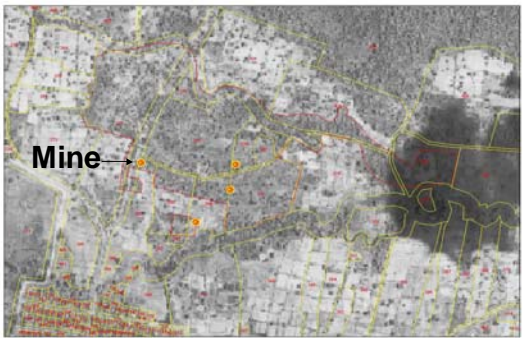


Dogs are trained in Europe. One handler with a dog walks a field.



Mine locations are marked on the base maps.



Halo Trust worked with us to remove the mines.



Preparing to explode a mine








DEMOLITION OF MINES FOUND BY HALO TRUST





Safety briefing for Demarcation Officers



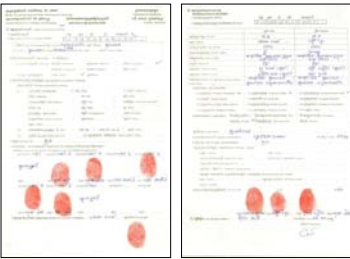
Safety briefing for Parcel owner and Neighbors

8 Adjudication Officer interviews Land owner and neighbors (Grouping approach) in Rainy season



Field Data Collection from People Claiming Land



- A. Identification of Owner(s)
- B. Identification of Parcel

Supporting documents to claim land

- Family book
- Id-card
- Other related documents

Cadastral Index Map prepared showing properties and claimants



Maps and lists of proposed owners are put on a public display for 30 days. Appeals can be made at this time, and resolved by village chiefs, or can go to official dispute resolution committees.



Land Title Certificates Presentation

