



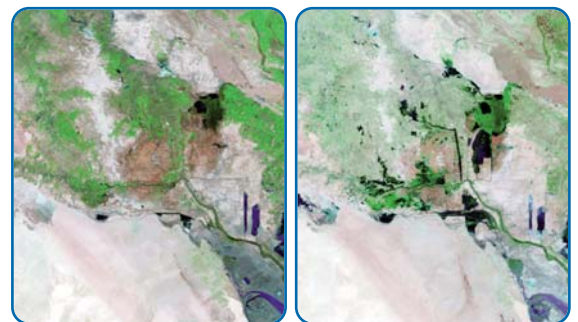
# IMOS: Iraqi Marshland Observation System

A monitoring system to survey reflooding distribution and vegetation response of the Mesopotamian marshlands - a transboundary ecosystem shared between Iraq and Iran.

## Background

The Mesopotamian marshlands, the largest wetland in West Asia, are a transboundary ecosystem shared between Iraq and Iran. In 2001, UNEP alerted the world to their plight with satellite images then showing that 90 percent of the wetlands had been lost.

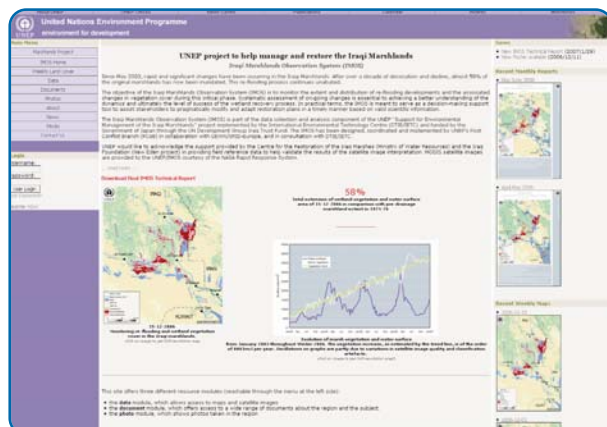
After over a decade of severe and engineered decline, wide-scale reflooding has been taking place in the marshlands since May 2003. Consequently, UNEP in consultation with relevant national authorities decided to establish IMOS to monitor the reflooding and wetland vegetation response. UNEP's monitoring results revealed that more than nearly 60% of the original marshland area was re-flooded by the end of 2006 and that wetland vegetation has generally made a strong comeback.



Images showing the wetlands in March 2003, when they reached their lowest historic extent, and May 2005, following two years of successive inundation.

A scientific remote sensing methodology has been developed to monitor the general evolution of the marshlands and IMOS is now fully operational. A two-week training course was held for national experts in early June 2006 to present the theory, methodology and applications of the marshland monitoring system. The knowledge transfer was also accompanied via the handover of a data archive, documents, software and hardware to enable the effective set up of the IMOS system at the national level in Iraq.

Given the relative intrinsic complexity of the IMOS and in order to help assure the effective transfer and operation of the system, the objective of the final phase (March-June 2007) was to provide technical support to national experts during a critical transitional phase.



<http://imos.grid.unep.ch>

## Objectives

The specific objectives of the remote sensing and website technical support are to:

- > Evaluate the quality of the monthly SLCI maps and statistics prepared by CRIM, and provide necessary feedback to improve it if necessary. This will be done by phone and email.
- > Provide technical assistance to set up and operate the IMOS website hosted at CRIM. This will be done by phone and email.
- > Collate and organise an archive on DVDs for the all pertinent data, imagery and documents produced during the course of the IMOS project. One copy will be handed over to PcoB and the other to CRIM).
- > Prepare an activity report summarizing handover results and achievements.

## IMOS Partners

- > UNEP Post Conflict & Disaster Management Branch (PCDMB)
- > Centre for the Restoration of the Iraq Marshlands (CRIM, Ministry of Water Resources), which is the lead national agency for the marshlands.
- > Iraqi Ministry of Environment.

The Iraqi Marshlands Observation System (IMOS) is part of the data collection and analysis component of the UNEP "Support for Environmental Management of the Iraqi Marshlands" project implemented by the International Environmental Technology Centre (UNEP/DTIE/IETC) and funded by the Government of Japan through the UN Development Group Iraq Trust Fund. The IMOS has been designed, coordinated and implemented by UNEP/DEWA/GRID-Europe, and UNEP/DEPI/PCDMB, and in consultation with DTIE/IETC.

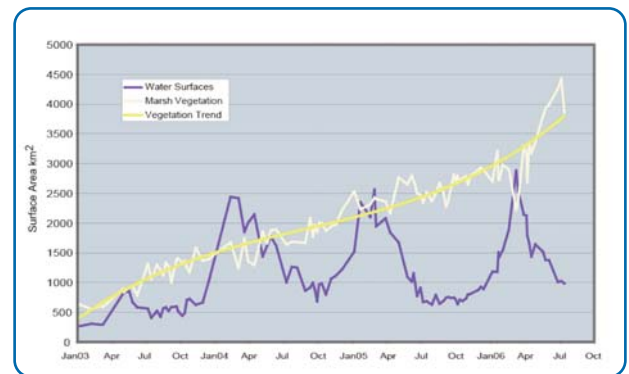
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## Upcoming Activities

The first three phases of the project (November 2004 to December 2006) permitted the development of the observation system on images of 2003 till 2006, and also allowed to initiate system handover to Iraqi partners. Prolongation of the last phase (March to June 2007) allowed finalizing the transfer of the entire system, including the IMOS website.



## About GRID-Europe

UNEP/DEWA/GRID-Europe is one of UNEP's major centres for data and information management, with a unique, "value-adding" mandate in the handling of global and regional environmental data, which in turn support the environment assessment and early warning activities of UNEP and its partners. Located in the "Maison Internationale de l'Environnement" or "International Environment House" (MIE/IEH) in Geneva, GRID-Europe serves as the unique francophone centre for the global GRID network. DEWA/GRID-Europe is supported by a "Partnership Agreement" between UNEP, the Swiss Federal Office for the Environment (FOEN) and the University of Geneva.