Protected Area (Gobustan State National Park) in the Azerbaijan Republic

The vegetation is one of the key and best instrument and indicator for monitoring of identification of impacts of the natural processes, environmental and ecological issues. As changes in vegetation are rapid and serious due to various human activities, it is urgent to monitor vegetation and their surrounding environment from physical, biological or social viewpoints. Remote sensing is expected to provide us an efficient tool for monitoring vegetation environment.

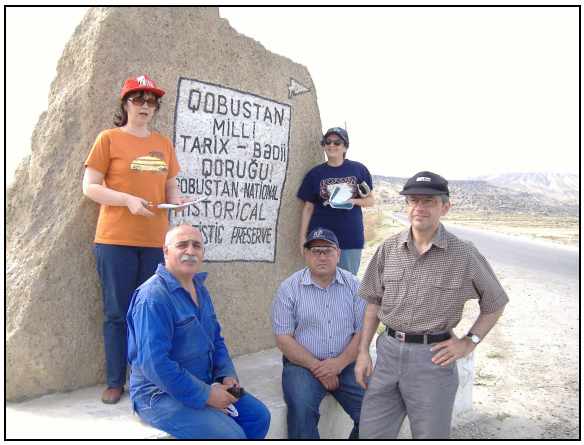
This study was carried out in Gobustan, located between the southern outcrops of the Caucasus Mountain range and the Caspian Sea, some 60 km south of the capital Baku.
The Study Area at Gobustan contains a wealth of historical and archaeological sites and is also known for its rare vegetation.

The desert communities in the Gobustan State National Park represent the most ecologically important habitat, from a botanic point of view. Some of vegetation within this study area now being classified as either rare or threatened and recommended for inclusion in an updated National Red List and some species are listed as globally threatened. The great age of many of the desert communities and their slow growth rate further enhance their botanic significance. The importance of this habitat type is one of the reasons that the Gobustan desert has been proposed as a State National Park, so that some level of protection is offered to this desert.

Our study aims to identify and describe the extent of rare vegetation communities found within the Gobustan State National Park using GeoInformation Systems (GIS) and Remote Sensing (RS). Using the accurate spatial information, our work will help to identify areas where further survey work is required and to develop mitigation strategy to reduce the impact rate of the natural and anthropogenic factors on environment.

This study is supported by the Planet Action and the Idea Wild non-profit organizations for their support by donating satellite images, GIS software and equipment, which provided recourses for the research that led to this paper.
Our project has on-going status.

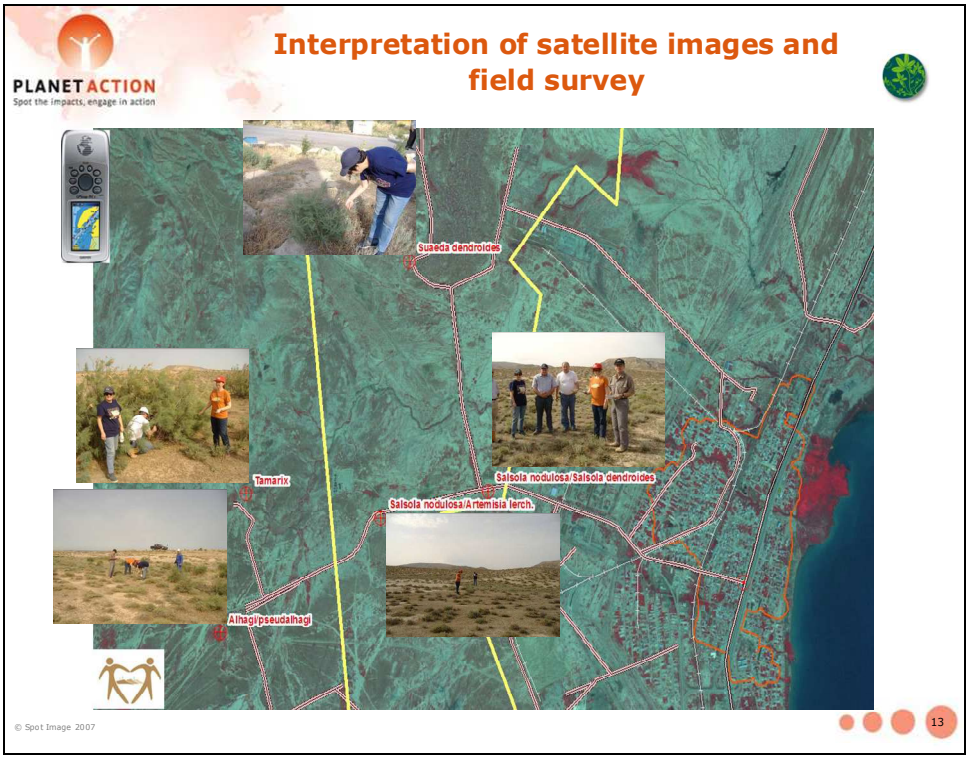
The team involved is listed below:
Yelena M. Gambarova – Project Leader
Adil Y. Gambarov – Project Mentor
Rustam B. Rustamov and Maral H. Zeynalova – Local Project Experts



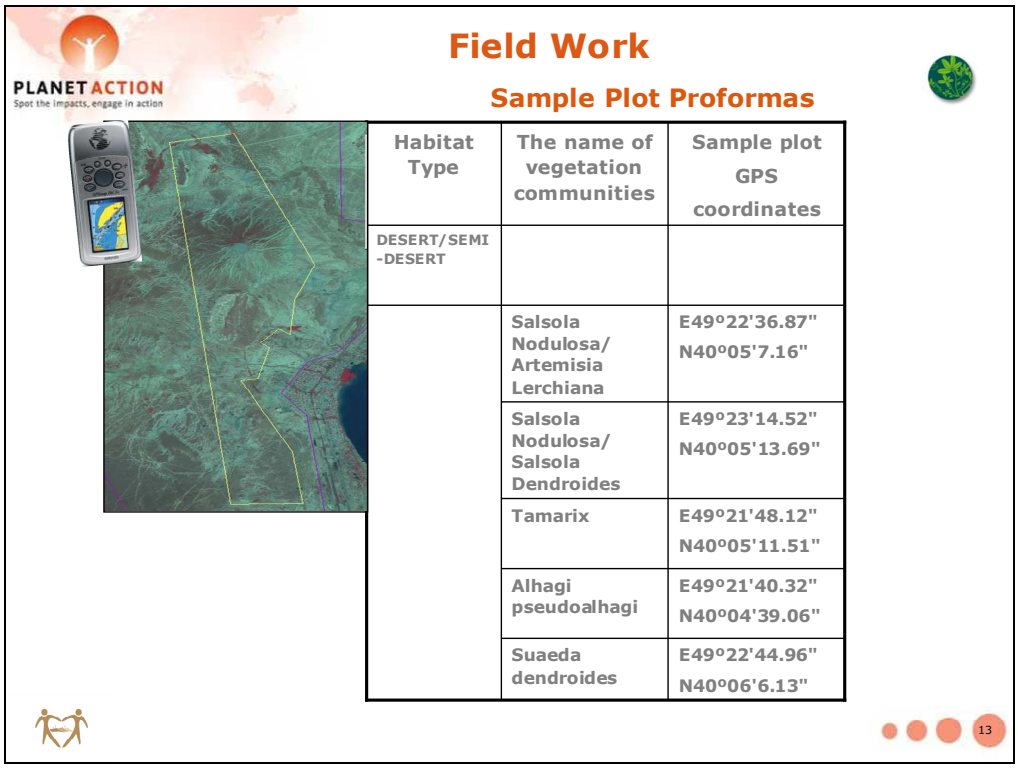
Project Team

The sampling scheme was designed to collect the rare vegetation communities in the Gobustan National Park study site for combined ecological and remote sensing studies. The Field surveys were hold in accordance with preliminary data on the spreading of rare plants in the study area. Quadrates and plots assisted by satellite SPOT5 imagery have provided information on habitat types and status. Because GPS devices provided the coordinates for ground-reference data during fieldwork, the sample plots were accurately linked to SPOT imagery. Every plot was registered with GPS Garmin device to allow further integration with spatial data in GIS and image processing systems.

The Field Work is being held in accordance with preliminary data on the spreading of rare plants in the study area.



During the field surveys the habitat for each vegetation type has been identified.



Habitat Type	The name of vegetation communities	Sample plot GPS coordinates
DESERT/SEMI -DESERT		
	Salsola Nodulosa/ Artemisia Lerchiana	E49°22'36.87" N40°05'7.16"
	Salsola Nodulosa/ Salsola Dendroides	E49°23'14.52" N40°05'13.69"
	Tamarix	E49°21'48.12" N40°05'11.51"
	Alhagi pseudoalhagi	E49°21'40.32" N40°04'39.06"
	Suaeda dendroides	E49°22'44.96" N40°06'6.13"

Sample Plot Proformas

Learn more about our project at
www.**planet-action**.org