

THE NEW GLACIER INVENTORY OF AOSTA VALLEY REGION (ITALY)

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A Regional Glacier Inventory has been compiled by Aosta Valley (District Region with special autonomy) in 2000 by using cartographic sources dating back 1975, then it was updated in 2006 by Fondazione Montagna Sicura (Council of the Aosta Valley Territory, Environment and Public Works) in cooperation with the Department of Earth Sciences "Ardito Desio" of University of Milan.

The present inventory was mainly compiled by GIS processing of orthophotos (surveyed in 1999, "Volo Italia 2000"); data from previous inventories were also analysed and compared.

295 glaciers located in the Aosta Valley territory were analysed; 76 of them resulted to be extinguished or negligible (a surface threshold of 0.005 km² was set) thus making the actual glacier number of Aosta Valley equal to **216**.

Each glacier was assigned with a WGI code; according to WGMS standard; glacier geographical (i.e. basin, coordinates, orientation, classification type,...) and geometrical data (area, length, width, etc..) were measured and inserted in a database; estimations of accuracy were also given.

About 25 % of Aosta Valley glaciers are located in the SE side of Mont Blanc Massif, 21% in the Monte Rosa area and 26% in the valleys of the Gran Paradiso Massif.

The whole surface covered by Aosta Valley glaciers resulted to be 154.5 km², that is about 5% of the entire Aosta Valley area. The mean glacier area is c. 0.7 km² even if some exceptions can be found (Miage, 10.83 km²; Lys, 10.78 km², Brenva, 7.06 km²).

By comparing these data with the ones inserted in the previous inventory (1975), an area reduction of about 34 km² from 1975 to 1999 can be assessed, that is a 18 % loss and a mean reduction of 1.4 km²/year; this is in agreement with results coming from other studies on Italian glacier shrinkage.