

## THE LIVIGNO LAKE

Observation point: Ponte delle Capre

We are at a bridge named "Ponte delle Capre" in the area where the stream coming from Alpisella Pass enters in the Livigno Lake. From here the lake seems quite narrow, about 9 km long and 400 m wide; the lake waters completely occupy the gorge of the Spol stream, a tributary of the Inn River. This lake has the typical shape of ones originating from the sudden damming of a river, due for example to a landslide, or by man activities.

Going along the road on the left side of the Livigno lake, you can reach the artificial dam of Ponte del Gallo, a big dome dam, featuring an arched profile. The dam was developed for hydropower production and it was completed in 1968.

From the upper limit of the dam, you can see the peculiar shape of the lake, which divides into two distinct valleys: the dam was in fact built at the confluence of the Acqua del Gallo stream with the Spol River.

The Livigno Lake has the largest part of its area in Italy. In fact, to develop this basin a nice ancient village was submerged, and some ruins also appear when the lake level decreases. Nevertheless, all the hydropower production is completely realized in Switzerland since all the waters are forced in the Ova Spin power station in the Engadine. Long negotiations were therefore necessary between Italy and Switzerland to reach an agreement on the use of water and the provision of hydropower. The agreement was found in 1957, in this year the Swiss electricity company "Engadiner Krafterwerke" obtained the authorization to build the dam, granting in exchange to Italy the permission to derive from the lake 90 million cubic meters of water per year.

This amount of water is transferred, through an underground channel, to the artificial basin of San Giacomo, in the neighboring Fraèle valley.

In this way, the waters of the Livigno valley feed two distinct hydroelectric systems belonging to two different Countries!