

Salt Pans in Namibia

What are salt pans?

Natural salt pans are flat expanses of ground covered with salt and other minerals, usually shining white under the sun. They are found in dry climates. In Namibia salt pans occur along the coast, for example at Cape Cross, as well as further inland (Etosha Pan).



Rock salt (halite) crystal



Salt flat in Owamboland



Otjivalunda West Pan from the air; the red colouring is caused by algae

Salt in Inland Pans

Inland pans produce far less salt than the pans along the coast. The known main inland occurrences of salt are those of Owamboland in the north, and Vertwall, Aminius and Arandis in the southern and central parts of Namibia. Only a few of the many pans scattered over Owamboland and the Etosha National Park contain salt. These are the Ngandjela and Ngandjela East Pans, the Otjivalunda Pans, situated west of the huge Etosha Pan, and the Ondangwa's Salt Pan, immediately north of the Etosha National Park fence.

The pans of Ovamboland, which belong to the inland pans, contain sodium sulfate, sodium carbonate as well as some sodium chloride (the latter better known as table or rock salt). For many centuries the salt crust (NaCl) on these pans has been used for domestic purposes by the Owambo people; the existence of the underlying soda ash ($\text{Na}_2\text{CO}_3 + \text{NaHCO}_3$) and thenardite (Na_2SO_4) has only been known since 1915. The latter are being used by the chemical industry in the production, among others, of washing powder, paper, textiles and glass. During each rainy season at least part of the salt is dissolved and redeposited in the subsequent dry season.



Satellite image of Otjivalunda Pans



Washing powder



Glass manufacture



Textiles



Wood pulp paper



Table salt