

KALMYKIA/RUSSIA

# The European desert

by Pietro Romeo





Élista. Konstantin Beembev, deputy director of the *Centre for the Restoration of the Chernozem (black earth) Pastures*, sits at the table of the conference room at the centre's headquarters. Behind him is a portrait of Lenin.



## SAND AND ARIDITY IN THE REPUBLIC OF KALMYKIA

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- The Republic of Kalmykia is a slice of Russia where the majority of the population has Mongolian origin and is Buddhist.
  - It is the most arid area in Europe: 80% of the territory is undergoing desertification, while 13% is made up of infertile sandy stretches.
  - The dramatic situation is largely due to the intensive exploitation of pastures imposed by the Soviet government after Stalin's death up until the 80s.
  - Organisations such as the *Centre for the Restoration of the Chernozem Pastures* and the *Institute of Integrated Research into Arid Areas* are working to tackle the issue, which is now aggravated by global warming.
  - A hard life for the population, often forced to leave the region despite being very proud of their origins.
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Élista. A photo album compiled by staff at the *Centre for the Restoration of the Chernozem (black earth) Pastures*. The album collects some of the techniques that have already been implemented to tackle desertification in the Republic. Five of Kalmykia's 13 districts are now predominantly sandy. In 1943, Stalin deported the Kalmyk people to Siberia on suspicion of collaboration with the Nazis. At the end of the 1950s, the survivors were allowed to return home, but the Soviet government imposed a policy of exploiting the pastures, encouraging cattle and sheep farms that impoverished the land to the point of making it a desert.





Komsomol'skiy. Sakhia is a Dagestani farmer. The house she and her family rent from the Kalmyk government had been abandoned due to the desertification of the surrounding areas. While her husband and two sons tend to their cattle, Sakhia is painting the inside of the house.





The desert area that extends into the Komsomol'skiy district in the southeast. The Republic of Kalmykia covers a total area of 74,731 square km. At the end of the 1990s nearly 80% of the territory was found to be undergoing desertification, while 13% was made up of infertile sandy stretches. Recent geobotanical studies have highlighted significant changes in the combination and structure of the various plant species in the soil as a result of global warming.



Mekletinsky natural state reserve. Yuri is wearing a traditional costume and carries the flag of the Republic. He is helping his son complete a homework assignment titled "The beauties of Kalmykia" by shooting a video on the Koltan-Nur salt lake, which is actually in the process of drying out.



**A lunar landscape buffeted by the winds, kilometres of steppe and sand as far as the eye can see, isolated villages and abandoned service stations. The most arid corner of Russia and the European continent is a mere thousand kilometres from Moscow.**

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The Autonomous Republic of Kalmykia is a slice of land facing the Caspian Sea and populated largely by Tibetan Buddhists where the consequences of Soviet rule are still visible today. Chief among these is the desertification that, although aggravated by global warming, is largely a result of the intensive agriculture implemented in the years following the death of Stalin. This ill-considered approach was applied in various areas of the USSR without taking into account the local environmental characteristics.

In Kalmykia even by the end of the 1990s more than a tenth of the entire area (around 770 thousand hectares) was covered in infertile sand, while more than 80% of the territory was already undergoing desertification. Today the situation is even more serious: the increasing periods of drought and high temperatures are endangering not only the already precarious balance between man and the environment but also the region's entire biodiversity.





Élista. Also located in the Kalmyk capital city is the *Institute of Integrated Research into Arid Areas* managed by Bogun Andrey Petrovich, seen here in his office. The Institute, which was founded in 1999, employs 30 scientific researchers and makes numerous expeditions across the territory to monitor the situation and decide when and where to intervene.





Razdol'nyy. Even more than the sheep, cows and oxen have contributed to the degradation of the Kalmyk soil. Today, camel farming is preferred in order to improve the conditions of the soil. Their impact on the land is very low compared to other livestock.



Razdol'nyy. Shepherds often need to use goggles to protect their eyes from the frequent sand storms. In fact, the absence of vegetation and mountain ranges means winds often blow at very high speeds, further contributing to soil erosion. A local saying states: "In Kalmykia there are winds just twice a year: once from East and once from West".







A huge water tank in Adyk, 150 km from Élista. The tank is connected to a purification plant that makes the ground water drinkable, thus counteracting the dramatic shortage of water resources afflicting the local community.





Élista. A meat seller at the market in the capital. The meat, mainly from sheep and cattle, is produced locally. Since the Kalmyk soil is arid and unsuitable for agriculture, fruit and vegetables are imported from other Russian regions or neighbouring former Soviet republics, aside from a statistically insignificant production of cabbage and potatoes in the Yashkul' region.





Yashkul'. A café on the provincial road connecting Élista to the eastern part of the Republic. The route is mainly used for commercial transport towards the Caspian Sea. Similar cafés are also a common stop for the *maršrutka*, small minivans common in the former USSR republics and used by the local population due to the absence of a rail network.





Ozero Tsomokskoye. Shepherd Magomed on the pasture with his dog and his Chinese-manufactured motorcycle. Today, new regulations impose containment measures and set a maximum number of animals per farm.





Prudovyy. Anatoly and Inna's dining room on their farm. They both worked for three years in a *sovchoz* (state-owned farm) close to Tsagan Aman, near the Volga River. Following the economic crisis in the aftermath of the fall of the USSR, they were forced to migrate. Three years ago they set up their own business 30 km from Élista so their children could study in the city.





Elista. A bride poses in a white dress in front of the Golden Temple in the capital city. Over the last decades in Kalmykia Western marriage customs and traditions have replaced traditional ones. The Golden Temple is the largest Buddhist monument in Europe. In Kalmykia the majority of the population practice Tibetan Buddhism (48%), which has experienced a significant revival since the fall of the Soviet Union and peacefully coexists with Orthodox Christianity (18%) and Islam (5%).





Prudovyy. Shepherd Anatoly on his farm. Aware of the risk of damaging the soil, Anatoly regularly rotates the pastures of his flocks. With the manure from his sheep, which is rich in nitrogen, he also tries to fertilise the areas around the farm. As he does not have access to a source of drinking water, he cannot cultivate fruit and vegetables.





Razdol'nyy. In the years following the collapse of the USSR, with the definitive abandonment of state atheism, religions that had been persecuted by the Soviet administration have made a comeback, often for reasons of identity. These include Tibetan Buddhism in Kalmykia, which is currently practised by 48% of the population.





Yashkul'. As well as cattle and sheep, camels are one of the main resources of Kalmyk farmers thanks to their adaptability to desert areas and capability to provide plenty of raw materials for food production while requiring comparatively less food and water than other livestock. The local population consume camel milk, which contains a high percentage of fats, has a sugary flavour and is believed to have curative properties.



Adyk. A teacher correcting some classwork. Inhabitants of this small town currently number 700, reflecting the gradual depopulation of the Kalmyk rural areas. However, a very strong organisational spirit has enabled this community to survive. In the village, special attention is paid to the school and sporting activities for the children: this has enabled the birth rate to remain stable.





Keyyudy. A Lada Niva, a jeep commonly used by shepherds and farmers, drives away on the steppe.



Konstantin Bembeev, deputy director of the *Centre for the Restoration of the Chernozem (black earth) Pastures*, at the Komsomol'skiy desert area, where the organisation has tested an agronomic technique to circumscribe the dunes and limit the expansion of the sands.





Yashkul'. Inside a *yurt* on Tokh-Tokh's farm: Sacred Buddhist images share space with a clock depicting Vladimir Putin in his military uniform. Tokh-Tokh is one of the few people in the Republic who still lives in this type of traditional dwelling.





Elista. Documents to be archived at the *Centre for the Restoration of the Chernozem (black earth) Pastures*, a national institution established to tackle the issue of desertification. On the wall, a topographic map shows the endangered areas in Kalmykia. Over the last eight years rainfalls have not exceeded 320 mm per year; even lower figures were recorded in the period from 2015 to 2017, when precipitation ranged from 143.2 to 205.1 mm.





Prudovyy. A flock of sheep near Èlista. The intensive use of pastures, encouraged by the Soviet government during the 1960s, went on until the end of the 1980s. In that period, the overuse of the land was estimated to have reached a level of up to 550%.



Adyk. Hongor, a ranger, and his co-worker wear the traditional Kalmyk warrior costume. The traditional costumes, as well as the native language of this population, are used only during historical re-enactments and public ceremonies. Behind them is a *yurt*, the typical house of nomadic shepherds in Central Asia. Also the Kalmyks, who descend from the Mongolian population of the Oirats, used this kind of tent until they began to adopt a sedentary lifestyle in the 19th century.





Volgograd (formerly Stalingrad). The process of soil degradation and desertification also extends to neighbouring areas to the north of Kalmykia near the city of Volgograd, a few dozen kilometres from the border with the small Autonomous Republic. This aerial view shows an area outside the city previously known as Stalingrad.



